

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

Case: IPR2025-01314

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

Petitioners

v.

MAXELL, LTD.,
Patent Owner
-----X

DEPOSITION
OF
BENJAMIN BEDERSON
WEDNESDAY, APRIL 29, 2026
HELD REMOTELY

Reported by:
Candida Borriello
Stenographic Court Reporter
Job No. 7122309-001

Maxell, Ltd.

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DATE: April 29, 2026
TIME: 8:56 a.m. (Eastern Time)

Deposition of BENJAMIN BEDERSON, held
REMOTEY, before Candida Borriello,
Stenographic Court Reporter and Notary
Public of the State of New York.

Maxell, Ltd.

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

Appearing on Behalf of Samsung Electronics
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Inc.:

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2 THE COURT REPORTER: We're on the
3 record.

4 B E N J A M I N B E D E R S O N,
5 called as a witness, having been
6 duly sworn by a Notary Public,
7 was examined and testified as
8 follows:

9 EXAMINATION BY

10 MR. JAVED:

11 Q. Good morning, Dr. Bederson.

12 A. Good morning.

13 Q. Can you please state your full name
14 for the record?

15 A. Benjamin D. Bederson.

16 Q. Where are you located right now?

17 A. I'm at the law offices of DLA Piper
18 in Washington, D.C.

19 Q. Is there anyone in the room with
20 you?

21 A. Yes.

22 Q. Who is it?

23 A. Matt Middleton.

24 Q. Do you have any physical documents
25 with you?

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2 A. I do.

3 Q. What are those documents?

4 A. They are my declaration for this
5 IPR2025-01314, as well as three other
6 documents, the patent, the '198 patent that I
7 have opinions about regarding this IPR. And
8 then two pieces of prior art, one that I
9 called Nagaoka and the other that I call
10 Watanabe.

11 Q. Are these documents marked up in
12 any way?

13 A. They are not.

14 Q. Do you have any applications open
15 on your computer?

16 A. Only Zoom.

17 Q. And as I'm aware, and you also, you
18 have been deposed before, correct?

19 A. I have.

20 Q. So you are familiar with the
21 general guidelines of the deposition so I
22 will not go over them.

23 A. I think that's right. Also I'll
24 add, I do have some electronic documents with
25 me as well.

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2 Q. That's fine.

3 Dr. Bederson, is there any reason
4 that you can't testify truthfully and
5 accurately today?

6 A. No.

7 Q. And specific to an IPR deposition,
8 do you understand that you are not permitted
9 to discuss the substance of your testimony
10 with counsel during the breaks?

11 A. I understand that.

12 Q. And just to confirm, this IPR
13 relates to the U.S. Patent 8,180,198 correct?

14 A. Yes, that's right.

15 Q. And if I refer to this as the
16 '198 patent, will you understand this is the
17 patent I'm referring to?

18 A. Yes.

19 Q. What did you do to prepare for
20 today's deposition?

21 A. I reviewed documents and talked
22 with counsel.

23 Q. And which documents did you review
24 for the preparation?

25 A. I don't think I can give you an
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1 B. Bederson

2 exhaustive list, but generally I reviewed my
3 declaration and several of the documents that
4 are cited in my declaration.

5 Q. Did you meet any attorneys to
6 prepare for today's deposition?

7 A. I did.

8 Q. Who did you meet?

9 A. Matt Middleton.

10 Q. Anyone else?

11 A. No, I don't think so.

12 Q. Did you meet anyone from Samsung to
13 prepare for today's deposition?

14 A. I did not.

15 Q. Dr. Bederson, when did you first
16 hear about this IPR proceeding?

17 A. I don't recall.

18 Q. And when did you start working on
19 this case?

20 A. I don't remember specifically. The
21 only thing I can tell you for sure is that it
22 is before the date that I filed my
23 declaration on August 29, 2025.

24 Q. Dr. Bederson, I'm going to put
25 Exhibit 1003 in the chat. Please let me know
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2 once you have downloaded it.

3 (Exhibit 1003 was introduced.)

4 A. Okay.

5 Q. Do you recognize this document?

6 A. I do.

7 Q. What is this document?

8 A. This is the declaration that I
9 provided for this IPR -- sorry, regarding the
10 '198 patent.

11 Q. And just to clear the record, when
12 you said "this IPR," you mean IPR2025-01314,
13 correct?

14 A. That is right.

15 Q. Now, let's turn to page 1 of
16 Exhibit 1003, which is the first page of your
17 expert declaration.

18 A. Okay.

19 Q. Is that your signature on this
20 document?

21 A. It is.

22 Q. And does this document appear to be
23 a true and accurate copy of your declaration?

24 A. It does. I will note I did notice
25 one error that I would like to correct, but
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2 this is -- it seems to be accurate as I
3 provided it. But there's one error I'd like
4 to correct, as I mentioned.

5 Q. Yeah. Please correct. What is the
6 error?

7 A. On page 86, that's referring to the
8 page number that I provided in the document,
9 so this is the second page of paragraph 180.
10 In the last sentence, it looks like I left
11 off a word, so that sentence currently starts
12 by reading:

13 Given that Watanabe does not
14 describe a user interface for images.

15 I left off the word "filtering."

16 It should say:

17 Given that Watanabe does not
18 describe a user interface for filtering
19 images.

20 Q. Any other correction?

21 A. No, I think there may be some minor
22 typos, not substantive.

23 Q. I'm going to put Exhibit 1001 in
24 the chat.

25 Dr. Bederson, let me know once you
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1 B. Bederson

2 have downloaded it.

3 (Exhibit 1001 was introduced.)

4 A. Okay.

5 Q. Do you recognize this document?

6 A. I do.

7 Q. Is this U.S. Patent

8 Number 8,180,198?

9 A. It is.

10 Q. And if I refer to this patent as
11 the '198 patent, will you know that's what I
12 mean?

13 A. Yes.

14 Q. Dr. Bederson, what is your overall
15 understanding of what the '198 patent is
16 describing?

17 A. In column 1 of the patent starting
18 at around line 11 it describes itself by
19 saying:

20 The present invention relates to
21 digital recorders capable of recording
22 digital images as in TV broadcasting in an
23 HDD or a DVD and particularly to a digital
24 recorder capable of creating a playlist.

25 Q. And what problem did the

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2 '198 patent seek to solve?

3 A. Well, later in column 1 starting at
4 line 59 the '198 patent describes itself by
5 saying:

6 The digital image recording and
7 reproduction apparatus according to the
8 invention can provide enhanced usability.

9 Q. So you agree that the '198 patent
10 describes a digital recorder that records
11 programs, correct?

12 A. I think that's right.

13 Q. And you agree the '198 patent
14 describes a system where a user selects a
15 design program from a list of programs
16 already recorded on the recording medium,
17 correct?

18 A. I think that's probably right.

19 Q. And the system then retrieves other
20 programs from the recording medium meets
21 certain retrieval conditions.

22 Is that also correct?

23 A. Well, Claim 1 describes retrieving
24 other digital images whose related
25 information is the same as the selected

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2 digital image, so that at least describes
3 retrieving a digital image that has certain
4 characteristics.

5 Q. And the retrieved programs are then
6 displayed as candidate programs that can be
7 added to a playlist, correct?

8 A. I see Claim 1 describes something
9 similar at column 6 starting at line 58, it
10 describes outputting a list identifying the
11 other digital images retrieved based on the
12 related information to select another digital
13 image to add in said playlist.

14 So that is describing a display of
15 some digital images that can be added to a
16 playlist.

17 Q. Dr. Bederson, let's go to column 3,
18 line 14. You are there?

19 A. Okay.

20 Q. You see the patent describes that
21 quotation quote -- starting quote:

22 The control unit 42 retrieves
23 information associated with the other
24 programs stored in the recording medium,
25 based on associated information on the

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2 user-selected program and retrieval
3 conditions, so as to select a program
4 candidate.

5 You see that?

6 A. I do.

7 Q. You agree this passage describes
8 the control unit retrieving programs from the
9 recording medium, correct?

10 A. Well, this sentence that you read
11 describes retrieving information associated
12 with the other programs. I don't see it
13 describing retrieving the programs
14 themselves.

15 Q. So you agree that this passage
16 describes that the retrieval is based on
17 associated information on the user-selected
18 program and retrieval conditions, correct?

19 A. So this sentence does describe
20 retrieving information associated with the
21 other programs that are based on associated
22 information of the user-selected program.

23 Q. You agree that the programs
24 retrieved are a subset of all the programs
25 stored in the recording medium, correct?

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2 A. It doesn't describe retrieving a
3 subset. I think it would depend on the
4 associated information.

5 Q. And you agree that the '198 patent
6 uses the word "retrieve" and not the word
7 "sort," correct?

8 A. Well, I see this sentence uses the
9 term "retrieve." This sentence that we've
10 been talking about does not use the term
11 "sort."

12 Q. Do you agree that "retrieve" and
13 "sort" are different operations?

14 A. I think there could be some overlap
15 between retrieving and sorting generally, but
16 I would agree that they are not the same,
17 certainly at least not always the same.

18 Q. And would you agree that a person
19 of ordinary skill in the art would understand
20 retrieve to mean extracting a subset of items
21 from a set of stored items, correct?

22 A. I haven't considered the definition
23 of retrieve or seen a construction, so I
24 don't have an opinion, sitting here today,
25 about what the definition of retrieve is.

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2 Q. So just to confirm in your
3 declaration you did not offer any
4 construction of the term "retrieve" or
5 "retrieval," correct?

6 A. Well, my opinion is in my
7 declaration, but I don't recall specifically
8 offering a construction of the term
9 "retrieve" or "retrieval."

10 Q. Dr. Bederson, let's turn to Claim 1
11 of the '198 patent and that is Exhibit 1001.

12 A. Okay.

13 Q. So starting with the preamble which
14 is a digital image recording and reproducing
15 apparatus according to a display module.

16 Do you see that?

17 A. I do.

18 Q. What is a digital image recording
19 and reproducing apparatus, according to the
20 claim?

21 A. I didn't offer a construction of
22 that term, so I don't have a construction or
23 definition to give you. What I did was
24 analyze the various prior art I considered
25 and showed how that prior art met the

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2 requirements of that claim limitation based
3 on its plain and ordinary meaning.

4 Q. And does the apparatus as disclosed
5 in Claim 1 record and reproduce digital
6 images?

7 A. So the preamble, that section that
8 we are talking about, says a digital image
9 recording and reproducing apparatus, so I
10 agree that describes an apparatus that
11 records and reproduces digital images.

12 Q. Let's move to Claim Element 1A,
13 which is the next limitation, which is:

14 An output module which displays a
15 plurality of digital images and a plurality
16 of related information concerning said
17 digital images recorded in a recording medium
18 on the display module, each digital image
19 corresponding to one of said plurality of
20 related information.

21 Do you see that?

22 A. I do.

23 Q. Dr. Bederson, what does related
24 information mean here?

25 A. Well, this limitation describes the
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2 related information as concerning said
3 digital images, so I think a POSITA, person
4 of ordinary skill in the art, would
5 understand the related information to certain
6 digital images.

7 There are examples in the
8 '198 patent of information, including A,
9 program description, its start and stop time
10 and channel. So I think a person reading --
11 a POSITA reading this patent would understand
12 those to be examples of related information,
13 I would think a person of skill in the art
14 would understand those all to be examples of
15 what are commonly described of as a metadata.

16 Q. And you agree the claim requires
17 that each digital image corresponds to one of
18 said plurality of related information,
19 correct?

20 A. This limitation 1-A describes that
21 each digital image corresponds to one of said
22 plurality of related information.

23 Q. Let's move to Claim Element 1B, and
24 I won't read the whole limitation, but it
25 starts, As control module which selects a

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2 digital image. And it ends in, image
3 recorded in said recording medium.

4 Do you see that?

5 A. I do.

6 Q. What is the control module
7 according to the '198 patent?

8 A. I don't recall the '198 patent
9 specifically describing a control module, but
10 certainly based on this claim limitation it
11 must meet the requirements of this
12 limitation, including selecting a digital
13 image to add in the playlist, along with the
14 other requirements of this limitation.

15 Q. So just to clarify, you agree that
16 this limitation requires the control module
17 to select a digital image, correct?

18 A. Yes, that's right.

19 Q. And as you just mentioned earlier,
20 the selection must also be to add in a
21 playlist, correct?

22 A. Well, to be clear, this limitation
23 does not require adding to a playlist. This
24 limitation requires selecting a digital image
25 to add in a playlist presumably for future

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2 actual adding.

3 Q. So again, just to clarify, you
4 agree that selection must be, quotation, to
5 add in a playlist, quote end, correct?

6 A. Well, the limitation does say a
7 control module which selects a digital image
8 to add in a playlist.

9 Q. And you agree the selection is
10 based on one of the plurality of information
11 concerning the digital image, correct?

12 A. That's part of the requirement.
13 Just to be clear, the full requirement is
14 that selection is based on one of the
15 plurality of information concerning the
16 digital image recorded in said recording
17 medium.

18 Q. So the control module, not the
19 user, is the entity performing the selection
20 in this limitation, correct?

21 A. This limitation does not provide
22 any restrictions on what the control module
23 might respond to or in what situations the
24 control module performs, but I agree that
25 this limitation itself describes the control

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2 module performing the selecting of a digital
3 image.

4 Q. And this limitation does not say a
5 control module which organizes, correct?

6 A. This limitation does not use the
7 word "organizes."

8 Q. And this limitation also does not
9 say a control module which sorts, correct?

10 A. This limitation does not use the
11 word "sorts."

12 Q. And further, this limitation does
13 not say a control module which browses,
14 correct?

15 A. This limitation does not use the
16 word "browses."

17 Q. And just to confirm again, the
18 claim requires or part of the claim requires
19 that the control module which selects a
20 digital image to add in a playlist, correct?

21 A. You read that portion of the
22 limitation correctly.

23 Q. Let's move to Claim Element 1C.1.

24 And the notation of these elements are

25 from your -- based on your declarations. I'm
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2 just following how you laid out these claim
3 elements.

4 I think that is actually page 14 of
5 your report. So this next limitation it
6 starts with, Wherein for a selected digital
7 image selected by the user said control
8 module and has further limitations. And ends
9 with, being candidates for adding in said
10 playlist.

11 Do you see that?

12 A. I do.

13 Q. You agree this limitation requires
14 a selected digital image selected by the
15 user, correct?

16 A. This limitation refers to a
17 selected digital image selected by the user.

18 Q. And you agree that after the user
19 selects the digital image, the control module
20 retrieves other digital images, correct?

21 A. Well, this limitation requires
22 retrieving other digital images whose related
23 information is the same as the selected
24 digital image. So that's the requirement.

25 There is a selected digital image and there

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2 is a retrieval of other digital images whose
3 related information is the same as the
4 digital image, but I don't see any ordering
5 requirement here.

6 Q. And are these retrieved images
7 candidates for adding in a said playlist?

8 A. Yes, that's right. It goes on to
9 explain that the other digital images being
10 candidates for adding in said playlist.

11 Q. And you agree the claim uses the
12 word "retrieves" not "sorts," correct?

13 A. This limitation 1C.1 uses the term
14 "retrieves," and I don't see it using the
15 term "sorts."

16 Q. And you agree the claim uses the
17 word "retrieves" not "organizes," correct?

18 A. This limitation 1C.1 uses the word
19 "retrieves." I don't see it using the term
20 "organizes."

21 Q. Let's move to Claim Element 1C.2.
22 This limitation starts with, outputs a list
23 identifying that other digital images
24 retrieved based on their related information.
25 And goes on and ends with, other digital

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2 images as the candidates by the user.

3 Do you see that?

4 A. I do.

5 Q. You agree this limitation requires

6 outputting a list identifying the other

7 digital images retrieved, correct?

8 A. That is part of this limitation

9 1C.2.

10 Q. And the list must identify digital

11 images that were retrieved, correct?

12 A. It describes identifying the other

13 digital images retrieved based on their

14 related information and it goes on with

15 additional requirements.

16 Q. And the purpose of the list is to

17 select another digital image to add in said

18 playlist, correct?

19 A. It doesn't use the word "purpose,"

20 but it does describe that the list that is

21 output it goes on to describe it as to select

22 another digital image to add in said

23 playlist.

24 Q. And the selection occurs when said

25 another digital image is selected from other

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2 digital images as the candidates by the user,
3 correct?

4 A. You read that correctly.

5 Q. So a user is selected, again,
6 looking at this limitation, a user is
7 selecting from the list of retrieved
8 candidate images to add to the playlist,
9 correct?

10 A. The last part of this limitation
11 1C.2 does describe that another digital image
12 is selected from other digital images as the
13 candidates by the user.

14 Q. Let's go to the next Claim Element,
15 which is 1C.3. It starts with, outputs said
16 playlist including a plurality of said
17 digital images added... all the way to, said
18 playlist are outputted in a same display.

19 Do you see that?

20 A. I do.

21 Q. Do you agree this limitation
22 requires four things displayed on the same
23 display, correct?

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

25 Q. And these four things are: One,
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2 the plurality of digital images; two, the
3 plurality of related information; three, the
4 list identifying the other digital images;
5 and four, the playlist, correct?

6 A. I think that's generally right.
7 There are some additional requirements, for
8 example, you said "the playlist," but it
9 refers to "said playlist." But I agree that
10 there are four items and I think you at least
11 characterized them.

12 Q. And just to confirm, all four items
13 must be output in a same display, correct?

14 A. That's right.

15 Q. And moving to the last limitation
16 of this Claim Element 1C.4, you agree that
17 this limitation requires that in the list of
18 other digital images, one image is positioned
19 next to another, correct?

20 A. It does describe outputting one of
21 the other digital images to be positioned
22 next to another one of the other digital
23 images.

24 Q. Dr. Bederson, let's go back to your
25 declaration, which is Exhibit 1003 for

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2 Ground 1. What reference or references are
3 you relying on?

4 A. I describe this in paragraph 93
5 where I explain that my opinion for --
6 regarding Ground 1 is that various claims of
7 the '198 patent are obvious by the reference
8 Nagaoka alone or just that one reference.

9 Q. So just to be clear, you're relying
10 solely on Nagaoka for Ground 1, correct?

11 A. No. What I said, I was relying
12 only on a single reference, which was
13 Nagaoka. My opinion is that it's obvious and
14 so my opinion also includes the knowledge of
15 a POSITA, which I described in various
16 places, for example, in the technology
17 background and state-of-the-art section in
18 paragraphs 53 through 62, as well as some of
19 the knowledge that a POSITA would have based
20 on the description of my own qualifications
21 in paragraphs 4 through 21.

22 Q. Dr. Bederson, I'm going to put
23 Exhibit 1004 in the chat. Please let me know
24 once you've downloaded it.

25 (Exhibit 1004 was introduced.)

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2 A. Okay.

3 Q. Do you recognize this document?

4 A. I do.

5 Q. Could you describe what it is?

6 A. This is U.S. Patent 7,822,233 that
7 I describe in my declaration as Nagaoka and
8 that is -- he's a prior art that I addressed
9 in Ground 1 of my declaration.

10 Q. What does Nagaoka disclose?

11 A. It discloses many things, and I
12 describe them in my declaration. I'm not
13 sure how to answer that more -- that question
14 more specifically without reading all of
15 Nagaoka.

16 Q. You agree that Nagaoka relates to a
17 method and an apparatus for organizing
18 digital media, particularly digital photos,
19 using face recognition, correct?

20 And just to clarify, I read that
21 from the abstract directly.

22 A. So I do see in the abstract that it
23 does characterize -- Nagaoka does
24 characterize the present invention as being
25 directed to a method and an apparatus for

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2 organizing digital media, particularly
3 digital photos using face recognition. So
4 certainly includes digital photos and it
5 includes digital media, which is broader than
6 digital photos, such as video, for example.

7 Q. What problem does Nagaoka seek to
8 solve?

9 A. Well, I see that in column 1
10 starting at line 41 it describes itself by
11 saying that:

12 Despite these existing products and
13 services, the inventors of this application
14 has found that the need exists for more
15 advanced techniques and software tools for
16 conveniently and quickly organizing digital
17 photos.

18 Q. And how does Nagaoka go about
19 describing this problem?

20 A. Well, I describe that throughout my
21 declaration and I show how it does it in a
22 way that makes the '198 patent obvious. But
23 I will say that it includes the use of a
24 related information and face recognition for
25 recommending photos that can be added to a

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2 playlist, for example. And then it does that
3 in a process that allows a continuous
4 interaction with the user.

5 So for example, in Figure 4,
6 there's a flowchart where there is a loop
7 between steps S218 and S224, where the face
8 recognition can be applied over and over
9 again until a media organizing is complete.
10 That's step S224.

11 Q. You agree that Nagaoka is about
12 organizing digital photos, correct?

13 A. As I said, Nagaoka discloses many
14 things. First of all, it's not restricted to
15 digital photos, it is directed to digital
16 media, which includes digital photos, as well
17 as other media, such as video. And one of
18 the things that it supports is organizing
19 digital media. I've also described it in
20 some depth throughout my declaration.

21 Q. You agree that the primary
22 mechanism in Nagaoka, and you just mentioned
23 a few moments ago about Figure 4, is for
24 organizing photos to face recognition,
25 correct?

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2 A. I certainly agree that Nagaoka
3 describes the use of face recognition for
4 organizing photos. It also describes a
5 receiving or recording photos, displaying
6 photos, printing photos, and organizing
7 photos based on many other kinds of related
8 information such as dates, events, places,
9 and the people within the photos. It also
10 supports cropping or -- cropping photos or
11 showing photos at reduced sizes. It
12 describes many things.

13 Q. Nagaoka does not disclose a digital
14 video recorder, correct?

15 A. I disagree.

16 Q. Could you point to me the spec
17 where Nagaoka discloses a digital recorder?

18 A. As we already discussed, the
19 abstract explains that it is directed to
20 organizing digital media, particularly
21 digital photos. Thus, it's quite clear that
22 it is not restricted to digital photos, but
23 it is directed to the broader set of digital
24 media, which includes video.

25 So in Figure 1, for example, where
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2 it describes Item 20, image input device, a
3 person of skill reading this would understand
4 that it is not restricted to still images,
5 but also digital media, which includes video.
6 That's also consistent with the way a person
7 of skill in the art would understand the
8 disclosure of digital cameras. For example,
9 at column 1, line 21, since at the time of
10 this patent in about 2003, digital cameras
11 also typically supported digital video.

12 Q. But my question is about whether
13 Nagaoka expressly discloses digital video
14 recording, yes or no?

15 A. My opinion, as I already explained,
16 is one of obviousness. And in my opinion, it
17 is obvious to a person of skill reading
18 Nagaoka that it discloses a digital video
19 recorder.

20 Q. Dr. Bederson, I'm not asking about
21 your obviousness analysis. I'm talking about
22 whether the reference expressly discloses the
23 digital video recorder.

24 MR. MIDDLETON: Objection. Form.

25 A. As I said, I believe a person of
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2 skill in the art reading Nagaoka would
3 understand it to disclose digital video
4 recorder. But I agree it does not use a
5 specific term "digital video recorder," at
6 least I don't see that.

7 Q. Does Nagaoka disclose recording
8 television programs?

9 A. When a person of skill in the art
10 reads Nagaoka, they would understand that a
11 digital camera can take still images or video
12 of any content that is physically in front of
13 the digital camera. So if the digital camera
14 were aimed at a television that was
15 displaying a video program, then I think in
16 that situation Nagaoka would at least include
17 the digital camera recording a television
18 program.

19 Q. But my question is whether Nagaoka
20 expressly discloses recording television
21 program, yes or no?

22 MR. MIDDLETON: Objection. Form.

23 A. So to be clear, my opinion about
24 Ground 1 is about whether a person of skill
25 would find various claims of the '198 patent

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1 B. Bederson
2 obvious in view of Nagaoka, which includes
3 how a person would understand Nagaoka's
4 disclosures as well as the knowledge of
5 the -- the knowledge that a person of skill
6 in the art would bring to that reading. And
7 for the reasons I've already explained, a
8 person of skill in the art reading Nagaoka --
9 sorry, would understand Nagaoka to include
10 the disclosure of recording a television
11 program for the reasons that I explained.

12 But I would agree that, at least
13 sitting here today, I don't see it using the
14 specific language "recording television
15 program."

16 Q. Nagaoka does not disclose a
17 playlist for recorded television programs,
18 correct?

19 A. I disagree.

20 Q. Does Nagaoka expressly disclose a
21 playlist for recorded television programs in
22 the spec?

23 MR. MIDDLETON: Objection. Form.

24 A. So again, my opinion is not about
25 anticipation. My opinion is that various

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1 B. Bederson
2 claims of the '198 patent are obvious in view
3 of Nagaoka alone. And for the reasons I just
4 explained along with the full analysis I
5 described in my report, my declaration, a
6 person of skill reading Nagaoka would
7 understand that it discloses a playlist of
8 television programs.

9 Q. But again, Dr. Bederson, my
10 question is regarding the disclosure. Does
11 the Nagaoka disclosure expressly disclose a
12 program -- a playlist for recorded television
13 programs?

14 A. So again --

15 MR. MIDDLETON: Objection. Form.

16 A. So again, my opinion is about
17 obviousness and how a person of skill in the
18 art would read Nagaoka. And for the reasons
19 I explained, a person of skill reading
20 Nagaoka would understand it to disclose a
21 playlist of recorded television programs.

22 Sitting here today, I do not see it
23 specifically use the language "recording a
24 playlist of television programs."

25 Q. Nagaoka does not disclose a program
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2 list as described in the '198 patent,
3 correct?

4 A. Well, I know that the '198 patent
5 uses the term program list in Claim 6 and
6 I analyzed how Claim 6 is obvious in view of
7 Nagaoka in my declaration.

8 And so for the reasons that I
9 explained in my declaration and as I
10 described, sitting here today, a person of
11 skill in the art reading Nagaoka would
12 understand that it does describe the claimed
13 program list of the '198 patent.

14 Q. Does Nagaoka expressly disclose a
15 program list of recorded television programs,
16 yes or no?

17 MR. MIDDLETON: Objection. Form.

18 A. So to be clear, the '198 patent
19 does not claim recorded television programs.
20 And so in response to this question about
21 program list, there's nothing here that
22 describes a program list as requiring
23 television programs. That also applies to
24 several of my previous answers, I was
25 explaining what Nagaoka discloses. But

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2 there's nothing in any of the claims that
3 describe or require a television program to
4 be recorded.

5 And for the reasons that I've
6 already explained, a person of skill in the
7 art reading Nagaoka would understand that it
8 does disclose both the claimed program list
9 as well as the recording of television
10 programs, and that those television programs
11 can be stored in a playlist.

12 Q. Does Nagaoka disclose a dubbing
13 list?

14 A. I address my opinions regarding a
15 dubbing list at least regarding claim 13
16 starting in paragraph 147. And I explained
17 that this claim does not actually require
18 dubbing rather -- sorry, does not recite the
19 process of dubbing, but as I said requires
20 only creating a list later used for dubbing
21 and Nagaoka does disclose that. I didn't
22 specifically offer an opinion about whether
23 Nagaoka itself discloses dubbing since that,
24 in my opinion, is not required by claim 13.

25 I did go on to explain in this

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2 section of my report, which is part of
3 Ground 3, that the combination of Nagaoka and
4 another reference called Nara does disclose
5 the actual dubbing should that be required by
6 this claim.

7 I'll also note I think we've been
8 going for an hour, so when you're ready for a
9 break, I'd like to take one.

10 MR. JAVED: Let's take a break.

11 THE COURT REPORTER: We're off the
12 record.

13 (Off the record.)

14 THE COURT REPORTER: We're back on
15 the record.

16 BY MR. JAVED:

17 Q. Dr. Bederson, let's go to
18 paragraph 93 of your declaration.

19 A. Okay.

20 Q. The first sentence of this
21 paragraph you state that:

22 A POSITA would have been motivated
23 to combine embodiments within Nagaoka.

24 You see that?

25 A. I do.

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1 B. Bederson

2 Q. Can you identify which specific
3 embodiments you are proposing to combine in
4 Nagaoka?

5 A. So to be clear, I ascribed
6 Nagaoka's embodiments because Nagaoka
7 describes itself by using the term
8 "embodiments." But a person of skill in the
9 art reading Nagaoka would understand that
10 what it describes as embodiments really are
11 characteristics of a single system. So when
12 I describe a POSITA would've been motivated
13 to combine embodiments with Nagaoka, I'm just
14 describing using the various characteristics
15 of Nagaoka. I don't believe there are any
16 separate systems, or as I explained here,
17 incompatible components or characteristics.
18 So I am combining all of the disclosures of
19 Nagaoka.

20 Q. Let's turn to paragraph 96. Here
21 in paragraph 96 you point to Nagaoka's media
22 organizing and processing unit 30 as the
23 claimed apparatus, correct?

24 A. I described media organizing and
25 processing unit 30 as an example of the

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2 Nagaoka's disclosures that meet the
3 requirements of Claim 1's preamble. But I
4 relied on all of Figure 2, including the
5 image input device 20, as well as the image
6 memory 32 that is part of the media
7 organizing and processing unit 30.

8 Q. You agree that on the '198 patent's
9 apparatus records and reproduces digital
10 images, correct?

11 A. This Claim 1 preamble does describe
12 an apparatus that records and reproduces
13 digital images.

14 Q. Does Nagaoka's media organizing and
15 processing unit 30 record digital images?

16 A. Nagaoka's media organizing and
17 processing unit 30 includes image memory 32,
18 which records media, including images from
19 image input device 20. So the media
20 organizing and processing unit 30 itself
21 records digital images, those digital --
22 there are also digital images that may be
23 recorded by the image input device 20.

24 Q. And does Nagaoka's media organizing
25 and processing unit 30 reproduce digital

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2 images?

3 A. As I said, my opinion about Claim 1
4 preamble includes Figure 2 and I described
5 the media organizing and processing unit 30
6 as an example of some of the disclosures that
7 meet this claim requirement. And the media
8 organizing and processing unit 30 does
9 reproduce digital images that are then
10 displayed on display unit 60.

11 Q. Does Nagaoka's media, organizing
12 processing unit expressly disclose recording
13 digital images?

14 A. So it does and I explained this in
15 this section of my declaration for --
16 additionally, for example, at column 3
17 starting at line 45 describing Figure 2,
18 which I cite to for this limitation in
19 paragraph 96, Nagaoka says -- again, this is
20 column 3 starting at line 45:

21 As shown in Figure 2, the media
22 organizing and processing unit 30, according
23 to this embodiment, includes an image memory,
24 32, which stores digital image data. So that
25 is an expressed disclosure of recording

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1 B. Bederson

2 digital images. Sorry, recording digital
3 images within the media organizing and
4 processing unit 30.

5 And as I already mentioned, image
6 input device 20 also is described as
7 recording digital images.

8 Q. And does Nagaoka's media organizing
9 and processing unit 30 expressly disclose
10 reproducing digital images?

11 MR. MIDDLETON: Objection. Form.

12 A. Again, my opinion about the Claim 1
13 preamble is not limited to the media
14 organizing and processing unit 30, it is --
15 my opinion is described in this section of my
16 declaration in paragraphs 96 through 98,
17 which includes all of Figure 2 and that shows
18 the media organizing control unit that
19 outputs digital images which are displayed on
20 display unit 60.

21 Q. But again, my question was, does
22 Nagaoka's media organizing and processing
23 unit 30 expressly disclose reproducing
24 digital images?

25 MR. MIDDLETON: Objection. Form.

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1 B. Bederson

2 A. So the answer is yes. Looking
3 closely at the Claim 1 preamble, it describes
4 a digital image recording and reproducing
5 apparatus connectable to a display module.
6 So clearly reproducing of the Claim 1
7 preamble is not itself the display, because
8 that was connected to a display, and
9 Nagaoka's media organizing and processing
10 unit does reproduce digital images and it is
11 connected to a display module, display 60, in
12 just the same way that is claimed in the
13 preamble.

14 Q. Could you point to me the spec,
15 Nagaoka's spec, where it says the media
16 organizing and processing unit reproduces
17 digital images?

18 A. Sure. So for example, in column 3
19 starting at line 32, it says:

20 A user views graphical user
21 interface (GUI) display screens and other
22 information including photos output by the
23 media organizing and processing unit 30 on a
24 display 60.

25 So that describes the media

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2 organizing and processing unit as outputting
3 the photos or reproducing them connected to a
4 display, unit 60, or displaying them as the
5 claim's display module requires.

6 Furthermore, as I said multiple
7 times, my opinion about the Claim 1 preamble
8 is not limited to the media organizing and
9 processing -- sorry, media organizing and
10 processing unit 30. I describe that as an
11 example, and in paragraphs 96 through 98, I
12 explain my full opinion regarding Figure 2
13 and the full disclosures in Nagaoka that
14 describe Figure 2.

15 Q. Let's go to paragraph 99.

16 A. Okay.

17 Q. In this paragraph, you point to
18 Nagaoka's media organizing scroll unit 38 as
19 the output module, correct?

20 A. While reading paragraphs 99 and
21 100, I clearly point to both the media
22 organizing control unit 38 as well as the
23 display module 60 and they work together to
24 output the digital images and display them.

25 Q. You also point to Nagaoka's

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2 Figure 3 and Figure 6 for the display of
3 digital images and related information,
4 correct?

5 A. Yes, that's right.

6 Q. And in your declaration, you
7 identify related information in Nagaoka as
8 including folder names, dates, event, places,
9 people and facial recognition data, correct?

10 A. Yes, that's right. I describe that
11 for example in paragraphs 101 through 104 and
12 105, and 106.

13 Q. And you also say:

14 The similarity measure data, for
15 example, similar to Momoko in Figure 6,
16 constitutes related information.

17 Correct?

18 A. Yes, I think that's right.
19 I describe that in part in paragraph 105.

20 Q. Let's turn to paragraph 109 through
21 111 of your declaration. Here in these
22 paragraphs you offer two examples of why
23 Nagaoka allegedly discloses limitation 1B,
24 correct?

25 A. That's right.

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1 B. Bederson

2 Q. And your first example in
3 paragraph 109 is that:

4 The user may select dates from the
5 category list 102 to organize and/or browse
6 digital photos organized by date.

7 A. That's part of what I said in
8 paragraph 109.

9 Q. And you quoted that language from
10 Nagaoka, correct?

11 A. That's right.

12 Q. And the language which I just cited
13 includes "the user may select," correct?

14 A. That's right. And I go on to
15 explain that when the user selects the dates
16 item in Nagaoka, the Nagaoka has a control
17 module which then displays -- selects and
18 displays digital images to add to a playlist
19 and are displayed in response to that
20 selection. So first the user selects and
21 then there is a control module of Nagaoka,
22 which selects digital images to be displayed
23 on the right side of the display.

24 Q. But the language which you quoted
25 from Nagaoka, I think it's from column 4

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1 B. Bederson

2 lines 3 to 5, it does not say the control
3 module selects, does it?

4 A. Well, control module is claim
5 language from the '198 patent. I explained
6 how a person reading Nagaoka would understand
7 its disclosures to disclose a control module
8 and I explained that, which is that the
9 software of Nagaoka that is -- it's part of
10 its control module, selects digital images to
11 add to a playlist and that occurs in response
12 to a user action, which is selecting a date.

13 Q. Again, my question is the
14 disclosures you have put in this paragraph
15 109 from Nagaoka, which says that the user
16 may select dates from the category list 102
17 to organize and/or browse digital photos
18 organized by date.

19 Looking at this disclosure from
20 Nagaoka, is there any word here -- does the
21 phrase "the control module selects" included
22 in this disclosure from Nagaoka?

23 MR. MIDDLETON: Objection. Form.

24 A. I've already explained that the
25 term "control module" is a 198 claim term.

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1 B. Bederson

2 My analysis is whether Nagaoka discloses that
3 and whether it would be obvious to a person
4 of skill in the art reading Nagaoka whether
5 that control module is disclosed and it is
6 for the reasons that I described.

7 For example, I explain my analysis
8 in the following sentence of paragraph 109
9 where I say that Nagaoka thus discloses that
10 the media organizing and control unit 38
11 selects digital images to add to a playlist
12 based on the date the photo was taken such
13 that the digital images are organized by
14 date.

15 So as an example, Nagaoka's media
16 organizing and control unit 38 meets the
17 control module requirement of 198 limitation
18 1B.

19 Q. But in column 4 line 3 to 5 does
20 not Nagaoka expressly state that the media
21 organizing and control unit select dates from
22 the category list 102 to organize and/or
23 browse digital photos organized by date?

24 MR. MIDDLETON: Objection. Form.

25 A. I've explained my opinion. I think
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1 B. Bederson

2 you're saying is part of my opinion that part
3 of Nagaoka includes a user selection of date.
4 And the answer to that is, yes. Is that my
5 entire opinion? No. My entire opinion is in
6 this section of my report in paragraphs 109
7 through 111 and as I explained. And
8 furthermore, my opinion, as I've said, is one
9 of obviousness and I explain how a person of
10 skill would understand Nagaoka's disclosure.

11 Q. And in this example, a user is
12 selecting a category dates from a category
13 list, correct?

14 A. That's part of Nagaoka's disclosure
15 which I describe.

16 Q. Category is not same as digital
17 image, correct?

18 A. To be clear, I'm not relying on the
19 user selecting the date to meet a control
20 module which selects a digital image. But I
21 would agree that a category list is probably
22 not itself a digital image, it's a category
23 list which can contain digital images, or
24 which is information related to digital
25 images.

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1 B. Bederson

2 Q. You will agree that the claim
3 requires the control module to select a
4 digital image to add in a playlist, correct?

5 A. That is part of what limitation 1B
6 says.

7 Q. And selecting a category from a
8 category list is not the same as selecting a
9 digital image to add in a playlist, is it?

10 A. To be clear, I am not pointing to
11 Nagaoka's disclosure of selecting a date from
12 a category list to meet the claim requirement
13 of selecting a digital image. I am pointing
14 to Nagaoka's selecting of digital images by
15 the media organizing from control unit 38,
16 which selects digital images to be displayed
17 and that can be added to a playlist in
18 response to the user selecting a date.

19 Q. And in the same paragraph the last
20 sentence you state that:

21 A POSITA would have further found
22 it obvious to organize digital images based
23 on underlying metadata, including the date
24 the photo was taken.

25 Do you see that?

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1 B. Bederson

2 A. I do.

3 Q. That is an obviousness argument not
4 a disclosure argument, correct?

5 A. Well, first of all, in my opinion,
6 Nagaoka does disclose organizing digital
7 images based on underlying metadata such as
8 date. I am further offering an opinion that
9 it would have been obvious to do so and there
10 are multiple reasons for that, including the
11 fact that I showed multiple disclosures in
12 the background section of my report, starting
13 at paragraph 53 where I showed examples of
14 digital photos that are organized by metadata
15 such as date, including in my own work with
16 the Photomesa system that I described in my
17 qualification section starting at paragraph
18 four and in particular in paragraphs 14 and
19 15.

20 Q. I didn't understand that part.

21 So you are pointing to paragraph 53
22 to show Nagaoka discloses?

23 A. No, we were talking about the
24 sentence where I said a POSITA would have
25 found it obvious to organize digital images

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1 B. Bederson
2 based on underlying metadata, including the
3 date the photo was taken. And I explained
4 two things, first, that Nagaoka itself
5 organizes digital images based on underlying
6 metadata, including the date the photo was
7 taken. And I explain that in various places
8 in my declaration and it is illustrated, for
9 example, in Figure 3 of Nagaoka which at item
10 102 shows dates that can be interacted with
11 to show photos within that date. And I've
12 also explained how Nagaoka organizes digital
13 photos based on other metadata such as
14 events, people, places and face recognition
15 data.

16 When I was referring to the
17 background section, starting at paragraph 53,
18 and my qualification section, starting at
19 paragraph 4, I was explaining that that is
20 knowledge that a POSITA would have that makes
21 it very clear that a POSITA would understand
22 that organizing digital images based on
23 underlying metadata including the date the
24 photo was taken was well known.

25 Q. Do you agree that Nagaoka does not
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1 B. Bederson
2 expressly disclose a control module that
3 selects a digital image to add in a playlist
4 based on dates, correct?

5 MR. MIDDLETON: Objection. Form.

6 A. So to be clear, my opinion is not
7 one of anticipation and I did not perform an
8 anticipation analysis. I performed an
9 obviousness analysis. And in this case,
10 we're talking in Ground 1 about the single
11 reference analysis of how a person of skill
12 in the art would understand the disclosures
13 of Nagaoka, as well as how they would
14 understand Nagaoka in light of their
15 knowledge. And I explained my opinion about
16 that and we've discussed it how my opinion
17 describes that in this section of my
18 declaration.

19 Furthermore, I think that Nagaoka
20 does disclose a control module which selects
21 a digital image to add in a playlist for the
22 reasons that I explained.

23 But I agree, it does not use the
24 precise claim language that is part of the
25 '198 claim limitation 1B.

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1 B. Bederson

2 Q. Second example in paragraph 110
3 involves Nagaoka's facial recognition
4 software, correct?

5 A. I'm sorry, I didn't understand the
6 question. Can you repeat it?

7 Q. Yeah.

8 Your second example in paragraph
9 110 involves Nagaoka's facial recognition
10 software, correct?

11 A. Yes, it does.

12 Q. In the first sentence you say that:
13 Additionally, a user may select a
14 photo by dragging and dropping it into a
15 person folder.

16 You see that?

17 A. I do.

18 Q. Let's go to Nagaoka column 5 lines
19 18 through 29. So here in this passage
20 Nagaoka describes the user dragging and
21 dropping faces from the unknown display
22 window portion 406, correct?

23 A. That's right.

24 Q. The user is the one performing the
25 drag and drop action, correct?

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2 A. That's right. And then Nagaoka
3 responds to that drag and drop interaction by
4 performing the facial recognition function to
5 update the selected list of displayed images
6 in 406. I mentioned that earlier, but that
7 is described, for example, in Figure 4 that
8 describes step S218 which describes applying
9 face recognition to determine similarity of
10 unknown faces. And then to continue down to
11 step S224, which then loops back to S218. So
12 this continues to occur in response to user
13 interaction with the system, and that's
14 further described later on in column 5
15 starting -- well, a full paragraph at line 30
16 through column 6, line 5, but in particular
17 it describes, starting at line 52:

18 If after the user has dragged and
19 dropped an unknown face into the model
20 display window portion 408, there are
21 additional unknown faces (S224) the face
22 recognition algorithm is repeated (S218).

23 So as I said, the user does perform
24 a drag-and-drop operation and then the system
25 responds by performing facial recognition and

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1 B. Bederson
2 updating the list of selected digital images
3 in 406.

4 Q. Let me go back to the same
5 paragraph which we were discussing. It says
6 that:

7 After the user drags and drops, the
8 face recognition unit 36 applies face
9 recognition to determine similarity of
10 unknown faces to the selected model.

11 You see that?

12 And this is I think line 28
13 starting from line 28 ending 29.

14 A. Yes, I see that.

15 Q. So Nagaoka says "determine
16 similarity," correct?

17 A. It does use that phrase here.

18 Q. It does not say select a digital
19 image to add in a playlist, does it?

20 A. If you're asking if Nagaoka uses
21 the 198 claim language, no, it does not.
22 Nagaoka describes a process that I explained
23 what it does and how a person of skill would
24 understand it. And a person of skill would
25 understand that it does disclose this

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1 B. Bederson
2 required claim limitation 1B where there is a
3 control module which selects a digital image
4 to add in a playlist. The control module is
5 the software of Nagaoka, I explained which
6 components that consists of, and in response
7 to a user performing a drag-and-drop
8 operation, Nagaoka performs facial
9 recognition function which results in
10 selecting digital images that are added to
11 406 which can then be later added to the
12 playlist 408.

13 Q. The media organizing control unit
14 38 sorts the unknown faces by similarity
15 measure (most similar to least similar),
16 correct?

17 A. Sorry, are you reading something
18 from Nagaoka?

19 Q. Yeah. This is again column 5, line
20 43 to 49 says:

21 Sorts the unknown faces by
22 similarity measure (most similar to least
23 similar).

24 You see that?

25 A. Yes, I do see that.

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1 B. Bederson

2 Q. So the media organizing control
3 unit here, it sorts, it does not select,
4 correct?

5 A. I disagree. You're reading a
6 portion of one sentence. I've explained the
7 overall disclosure of how Nagaoka works. As
8 part of the facial recognition process, it
9 does select images and add them to 406 and it
10 adds them in a sorted order based on the
11 similarity measure.

12 Q. Can you point me to any passage in
13 Nagaoka where Nagaoka uses the word "select"
14 in connection with the function performed by
15 the media organizing control unit?

16 MR. MIDDLETON: Objection. Form.

17 A. I didn't analyze Nagaoka to see if
18 it repeats the 198 claim language.
19 I performed an obviousness analysis to show
20 whether a person of skill in the art reading
21 Nagaoka would understand its disclosure to
22 disclose the requirements of the '198 patent.
23 And the answer is for all the reasons I've
24 explained that it does. But I don't have an
25 opinion, sitting here today, as to whether it

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1 B. Bederson
2 uses the specific word "select" in this
3 analysis -- sorry, in this section of
4 Nagaoka.

5 Q. But you agree that Nagaoka uses the
6 word "sort" when it discloses the function
7 performed by media organizing control unit
8 38, correct?

9 MR. MIDDLETON: Objection. Form.

10 A. So for all the reasons I explained,
11 Nagaoka clearly discloses selecting a digital
12 image to add in a playlist and meeting the
13 requirements of claim limitation 1B. But I
14 do agree that there is a portion of a
15 sentence that column 5, line 45 in Nagaoka
16 that uses the word "sorts."

17 Q. And you agree that Nagaoka uses the
18 term "select" only in association with a
19 user, correct?

20 MR. MIDDLETON: Objection. Form.

21 A. Again, my analysis was not whether
22 Nagaoka uses the same claim language as the
23 '198 patent, which is not required for an
24 obvious analysis. In fact, I don't think
25 that would even be required for an

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1 B. Bederson
2 anticipation analysis, but I did show and
3 explain how a person of skill in the art
4 reading Nagaoka would understand that its
5 disclosure clearly discloses a control module
6 which selects a digital image to add in a
7 playlist.

8 Q. Looking at column 3, line 67,
9 Nagaoka discloses that:

10 Accordingly, the user may select
11 from this category list 102.

12 Do you see that?

13 A. I do.

14 Q. Now, looking at column 4, line 3,
15 Nagaoka again says:

16 For example, the user may select
17 dates from the category list 102.

18 Do you see that?

19 A. I do.

20 Q. And now looking at again column 4,
21 line 8, it says that:

22 Furthermore, in accordance with
23 principles of present invention, the user may
24 select people to organize digital photos
25 based on the faces appearing therein.

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1 B. Bederson

2 Do you see that?

3 A. I do see that. I also see
4 disclosures in Nagaoka that describe all the
5 things that I explained that it describes.
6 I also note, sitting here today, at column 2
7 starting at line 61 it says that:

8 The present invention may be
9 implemented to allow a user to set up folders
10 for different people, find similar faces to a
11 face or faces in these folders and add
12 photographs to the people folders based on
13 detected similarity.

14 So Nagaoka does use the language
15 add photographs to the people folders based
16 on detected similarity as an additional
17 disclosure of selecting digital images to add
18 in a playlist.

19 Q. Is it your opinion the word "add"
20 and "select" mean the same thing?

21 A. It is my opinion that a person of
22 skill in the art reading Nagaoka would
23 understand for all the reasons that I
24 explained, including this disclosure of
25 adding photos, that it teaches selecting a

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2 control module which selects a digital image
3 to add in a playlist.

4 Q. But again, going back to column 2,
5 lines, I think, 61, which you just pointed
6 out, here it says:

7 The present invention may be
8 implemented to allow a user to set up folders
9 for different people, find similar faces to a
10 face or faces in these folders and add
11 photographs to the people folders based on
12 detected similarity.

13 I don't see any selection by a
14 control module here.

15 MR. MIDDLETON: Objection. Form.
16 Counsel, is that a question?

17 MR. JAVED: Yes.

18 MR. MIDDLETON: Can you please
19 rephrase that question?

20 Q. So Dr. Bederson, you just pointed
21 to column 2 and looking at column 2 from
22 lines 61 all the way to line 65, I don't see
23 the control module selecting a digital image
24 as required by claim element 1B; do you
25 agree?

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1 B. Bederson

2 A. I don't have an opinion about what
3 you see.

4 Q. What I'm pointing to is in the
5 disclosure, which you just pointed out, and I
6 don't see control module selecting a digital
7 image. Could you point to me where in the
8 section which you just stated the control
9 module is selecting digital image?

10 MR. MIDDLETON: Objection. Form.

11 A. So again, my opinion is how a
12 person of skill in the art would understand
13 Nagaoka as a whole and I was pointing to
14 this section of column 2, lines 61 to 65 as
15 additional description that is completely
16 consistent with my analysis of Nagaoka as a
17 whole that I've explained already which is
18 that when a user drags and -- drag and drops
19 a digital image onto a person or people
20 folder, the control module or algorithm of
21 Nagaoka, as described in part in column 5 and
22 in Figure 4, repeatedly runs in a loop to
23 respond to the user interaction to add photos
24 to the list of photo faces displayed in
25 Box 406 of Figure 6 and that adding of those

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2 photos meets the claim requirement of a
3 control module which selects a digital image
4 to add in a playlist based on one of the
5 plurality of information concerning the
6 digital image recorded in said recording
7 media.

8 Q. Let's look at column 4, lines 43.
9 And here Nagaoka discloses that Figure 5
10 illustrates an exemplary GUI display screen
11 300 for importing digital photos which allows
12 the users to select folder or individual
13 images to be imported.

14 Do you see that?

15 A. I do.

16 Q. And again, same column, line 62, it
17 states:

18 If a user decides not to detect
19 faces at the time of importing the photos,
20 the user can select a detect faces menu
21 option not shown at any time.

22 Do you see that?

23 A. I do.

24 Q. And then at column 5 line 1, it
25 says:

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2 After face detection and cropping
3 has been performed for a set of imported
4 digital photos, the user may select a show
5 faces button 116 of the GUI display screen
6 100 to view the detected faces in the display
7 window 110.

8 Do you see that?

9 A. I do.

10 Q. And you agree that in all these
11 disclosures we just went over, Nagaoka
12 specifically discloses a user selecting a
13 function, correct?

14 MR. MIDDLETON: Objection. Form.

15 A. As I have said today multiple
16 times, Nagaoka is quite clear that it does
17 describe user interfaces where a user can
18 have various interactions, including
19 selecting photos and in addition the Nagaoka
20 system can respond -- well, can operate in
21 various ways, including adding displaying and
22 selecting additional photos that sometimes
23 can occur in response to a user action such
24 as selecting.

25 Q. And just to be clear, Dr. Bederson,
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2 sorting and selecting are different
3 operations, correct?

4 MR. MIDDLETON: Objection. Form.

5 A. I haven't performed a construction
6 of those two words. Sitting here today, I
7 think there's some -- can be overlap between
8 those two words, but I think I would
9 generally agree they are not the same word.

10 Q. Can we go to paragraph 111? You
11 identify the display window portion 408 in
12 Nagaoka's Figure 6 as a playlist, correct?

13 A. I do.

14 Q. And display window portion 408 is
15 identified in Nagaoka as the model display
16 window portion, correct?

17 A. Nagaoka does at least sometimes
18 refer to 408 as a model display window
19 portion.

20 Q. And the model display window
21 portion 408 contains face images that serve
22 as a comparison model for face recognition,
23 correct?

24 A. Sounds like you're reading from
25 someplace in Nagaoka; is that right?

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2 Q. Yes, this is column 5 from lines 22
3 onwards.

4 A. I don't see where it is describing
5 408 in the way that you just was asking
6 about.

7 Q. Would you agree the purpose of
8 putting images into model display window
9 portion 408 is to serve as a basis for the
10 face recognition algorithm and not to create
11 a playlist of programs, correct?

12 MR. MIDDLETON: Objection. Form.

13 A. I disagree.

14 Q. Could you explain why you disagree?

15 A. Well, I explained in paragraph 111
16 that Nagaoka's 408 meets the required
17 playlist because 408 shows a selected --
18 sorry. 408 shows a list of selected images
19 in a folder that is a list of digital images
20 that may be played. And I go on to explain
21 that Nagaoka explains that it supports a
22 slide presentation of a group of digital
23 photos, that's in my paragraph 111 in Nagaoka
24 column 6, lines 11 and 12. And so a person
25 of skill in the art would understand that

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2 Nagaoka's display 408 meets the requirements
3 of a playlist as a person of skill in the art
4 would understand Nagaoka's disclosures.

5 Q. Nagaoka never uses the word
6 "playlist" anywhere in its specification,
7 does it?

8 A. I don't recall it doing so. I will
9 say that I go on to explain towards the end
10 of paragraph 111 that I also have a specific
11 obviousness argument that it would be obvious
12 to modify Nagaoka's disclosure in Figure 6 of
13 a display window portion 408 to show digital
14 images in a playlist since such playlists
15 were well known in the art, if it were found
16 that 408 itself was not a disclosure of a
17 playlist.

18 And that is based both on Nagaoka's
19 own disclosure of playlists, such as a slide
20 presentation, as well as a background of the
21 technology section that I included starting
22 in paragraph 53 and my own qualifications
23 starting at paragraph 4.

24 Q. So a person folder in Nagaoka is
25 used to organize photos by person for face

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2 recognition purposes, correct?

3 A. I didn't understand your question.

4 Could you repeat it, please?

5 Q. So a person folder in Nagaoka is

6 used to organize photos by person for face

7 recognition purposes, correct?

8 A. Are you reading something specific

9 from Nagaoka or just asking me general

10 understanding of Nagaoka?

11 Q. General understanding of Nagaoka,

12 as you were discussing in Figure 6 and, you

13 know, window portion 408?

14 A. Well, your question talked about a

15 folder -- I think person folders, so that

16 also includes 402. And so my answer to your

17 question is I think that person folders can

18 be used in support of facial recognition, but

19 that's not the only purpose and only

20 disclosure of Nagaoka.

21 I also note I think we've been

22 going another hour, so I'd like to take a

23 break when you're at a good stopping point.

24 Q. Just give me one second.

25 MR. JAVED: Let's take a break.

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2 THE COURT REPORTER: We're off the
3 record.

4 (Off the record.)

5 THE COURT REPORTER: We're back on
6 the record.

7 BY MR. JAVED:

8 Q. Dr. Bederson, let's move to the
9 next limitation 1C.1 which is in paragraph, I
10 think, 112 to 114. So here in paragraph 113
11 you state that:

12 The media organizing control unit
13 38 and/or Nagaoka's facial recognition
14 software (the claimed control module)
15 retrieves other digital images whose related
16 information is the same as a selected digital
17 image.

18 Do you see that?

19 A. I do.

20 Q. You're pointing to Nagaoka's
21 Figure 6 and display window portion 406 for
22 this limitation, correct?

23 A. So I describe Figure 6 and the
24 display element 406 as an example of how
25 Nagaoka retrieves other digital images whose

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2 related information is the same as the
3 selected digital image.

4 And to be clear, that's for the
5 first example in paragraph 113 and I give
6 another example in paragraph 114.

7 Q. Let's go to column 5, lines 22 to
8 25. Here Nagaoka discloses that the user may
9 drag and drop any of the faces from an
10 unknown face -- sorry, unknown display window
11 portion 406 such the displaying faces from
12 imported digital photos that have not been
13 associated with a particular person folder.

14 Do you see that?

15 A. I have. I do.

16 Q. And do you agree that these unknown
17 faces are detected and cropped from all
18 digital photos, correct?

19 MR. MIDDLETON: Objection. Form.

20 A. Sorry, can you repeat the question
21 please?

22 Q. Yes, one second.

23 So you agree that these unknown
24 faces are detected from all digital photos,
25 correct?

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2 MR. MIDDLETON: Objection. Form.

3 Q. Just to clarify -- let me rephrase
4 the question.

5 These unknown faces detected from
6 all imported digital photos, correct?

7 MR. MIDDLETON: Objection. Form.

8 A. I disagree.

9 Q. Could you go to column 4, lines 40
10 to 49? And after reading that, do you agree
11 that what I just asked that unknown faces are
12 all detected from all imported digital
13 photos?

14 A. Well, I think it's right that 406
15 can display faces that are from imported
16 digital photos, but at least one additional
17 requirement is that it displays only digital
18 photos that have not been associated with a
19 particular person folder.

20 Q. Also looking at the same disclosure
21 column 4, lines 40 to 49, would you agree
22 that the face detection and cropping is
23 performed on all imported photos regardless
24 of any user selection, correct?

25 A. Well, we know that's not true from
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2 the -- from Figure 5 and the description that
3 we read earlier at Figure 5 where there is an
4 option for user to control whether imported
5 photos have faces detected or not and events
6 detected or not.

7 So for example, in Figure 5 user
8 interface element 306 has a checked box
9 called Automatically Detect Faces that can be
10 turned on or off. And -- sorry, that's
11 further described in column 4 at lines 55
12 through 66.

13 Q. So once a user selects a person
14 folder and the face recognition algorithm is
15 applied, what happens to the images in
16 display windows portion 406?

17 A. As I've explained earlier, the
18 algorithm described in Figure 4 applies the
19 facial recognition algorithm on a repeating
20 process so that the selected images in 406
21 are updated based on, for example, how a user
22 interacts with a system by, for example,
23 dragging and dropping and identifying
24 individual photos as belonging to a
25 particular person.

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2 Q. So is it correct to say that the
3 images are sorted by similarity measure from
4 most similar to least similar; is that
5 correct?

6 A. I think generally that's right the
7 selected images in 406 are sorted from most
8 similar to least similar based on a selected
9 person.

10 So in Figure 6 Box 408 has person
11 Momoko selected by the user with the result
12 being that 406 shows selected images sorted
13 as they relate to Momoko.

14 Q. But the same set of unknown faces
15 remains in display window portion 406,
16 correct? The set does not change, correct?

17 A. No, that's not right. It
18 changes -- for example, if you drag a face
19 from 406 onto Momoko then that identifies
20 that person as being associated with Momoko
21 so that -- so that person would be removed
22 from 406 and thus the selected photos in 406
23 would be updated and resorted.

24 Q. Dr. Bederson, after the face
25 recognition algorithm is applied and the

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2 sorting occurs, are any images added to
3 display window portion 406 that were not
4 already there?

5 A. The selected images would be
6 changed. It initially had one set of images
7 and then after the drag and drop, it would
8 have a different set of images. For example,
9 at least it would not include the image that
10 was drag and dropped onto another person's
11 folder, or any person's folder.

12 Q. I'm talking about the same person
13 folder and the sorting algorithm has
14 occurred. At that point, are any or have any
15 images or new images added to display window
16 portion 406?

17 MR. MIDDLETON: Objection. Form.

18 A. I don't think I understand your
19 question. Sometimes images are added and
20 sometimes they are removed. So the selected
21 images in 406 change. Images can be added at
22 least when a person imports new images and
23 images can be removed when a person drag and
24 drops an image from 406 onto a person's
25 folder.

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2 Q. Apart from adding and removing, I'm
3 talking about the sorting functionality, the
4 sorting algorithm, what happens once the
5 sorting is complete; how are images displayed
6 in window portion 406?

7 MR. MIDDLETON: Objection. Form.

8 A. Well, as we can see in Figure 6,
9 after a user has selected a -- the user can
10 do a number of things. The system does a
11 number of things including performing facial
12 recognition, selecting photos to be
13 displayed, sorting them and then it displays
14 them. While it's being displayed, I don't
15 think they're jumping around, there's a point
16 at which they're stable until the next user
17 interaction.

18 Q. And as you mentioned, while the
19 user is interacting and sorting these images
20 during the sorting process, are any new
21 images added to the window portion 406?

22 A. They may be. So as I said, I think
23 the -- which images are selected for display
24 in 406 changes, the images can be -- the
25 number of images can be decreased if, for

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2 example, a person has dragged an image onto a
3 person photo or if an image has been
4 imported, it could be added, or if there had
5 been previously -- there had been images that
6 had been imported without recognizing and
7 then an action was performed to request the
8 system to recognize all the images, then
9 the number of images in 406 would be
10 increased. So there are multiple ways of the
11 number of images in 406 can be increased or
12 decreased.

13 Q. Let's try to simplify that.

14 Are any images added from display
15 window portion -- well, added to window
16 display portion 406 as a result of the
17 sorting function?

18 MR. MIDDLETON: Objection. Form.

19 A. I think I've explained my analysis
20 of how a person of skill in the art would
21 understand Nagaoka, which includes multiple
22 parts of the disclosure of Nagaoka including
23 its response to different user interactions,
24 such as a drag and drop, and one of the parts
25 of the Nagaoka system is that it sorts the

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2 images in 406, but I am relying on much more
3 than that, I am relying on the full
4 disclosure of Nagaoka.

5 But in answer to your question,
6 I don't know that the sorting step itself
7 changes which images are displayed in 406,
8 but the system as a whole does and for all
9 the reasons that I've explained.

10 Q. And are any images removed from
11 display window portion 406 as a result of the
12 sorting function?

13 A. So again, I'm looking at how a
14 person of skill would understand the
15 disclosures of Nagaoka. When a person drag
16 and drops -- drags and drop a photo from 406
17 onto a person folder, then there are a number
18 of steps that occur in Nagaoka, including
19 associating that photo that was just dragged
20 with a person performing new facial
21 recognition and resorting, the overall result
22 of that is that there would be a change in
23 the number of selected photos in 406.
24 Nagaoka doesn't specifically say which of
25 those steps or which or those of parts of

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2 that process result in the number of images
3 being decreased, so it could be part of the
4 sorting step or could be part of one of the
5 other steps.

6 Q. Is it correct to say the sorting,
7 the sorting of images simply changes the
8 order of the images in display window portion
9 406, but the images themselves remain the
10 same, correct?

11 A. No, that's not what I said and I
12 don't think that's correct.

13 As I said, Nagaoka displays a
14 number of components to its algorithm and
15 processes that work together. It doesn't say
16 specifically which parts of these steps
17 result in a dragged and dropped photo being
18 removed from 406, but a person of skill in
19 the art would understand that it could work
20 in different ways. So for example, if the
21 sorting step -- the sorting step might remove
22 a photo from 406 when it recognizes that a
23 photo has been identified with a name and so
24 it chooses no longer to display it as part of
25 the sorting step, or maybe it happened in the
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2 step before as a direct result of the drag
3 and drop. Nagaoka doesn't specifically say
4 that, so a person of skill would understand
5 that could easily operate in each of those
6 ways.

7 Q. So just to confirm and clarify,
8 Nagaoka does not explicitly state that during
9 sorting step, which you just mention, images
10 are added or removed, correct?

11 A. As I said, Nagaoka describes quite
12 clearly how the system as a whole works and
13 it describes that there are multiple steps,
14 which include a sorting step. It does not
15 say in detail at exactly which one of those
16 steps an image might be removed from 406 as a
17 result of a drag and drop. So it does not
18 say whether it is part of the sorting step or
19 part of another step.

20 Q. Can you point me to any passage in
21 Nagaoka that describes images being added or
22 removed from display window portion 406 as a
23 result of face recognition algorithm?

24 A. Sure. We already talked about how
25 at column 5, line 22 that the user may drag

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2 and drop any of the faces from an unknown
3 display window portion 406, i.e., displays
4 digital photos that have not been associated
5 with a particular person folder. So that
6 describes 406 as having images not associated
7 with a particular person folder.

8 But then when we go on to looking
9 at Nagaoka's disclosure of the drag and drop
10 feature in more detail, which is at column 5
11 starting at line 49, using this updated
12 display 400, the user is able to drag and
13 drop one or more of the sorted unknown faces
14 from the unknown display window portion 406
15 into a model display portion window 408. So
16 that shows that you are then associating a
17 photo with a face image and so it is no
18 longer unknown.

19 So those two disclosures together
20 teach to a person reading Nagaoka that 406
21 would result in no longer displaying that
22 photo that you just dragged and dropped
23 because it is no longer an unknown photo not
24 associated with a face.

25 And as I said, it doesn't

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2 specifically say whether that removal from
3 406 -- sorry, doesn't specifically say which
4 step removes the photo from 406, whether it
5 is removed, for example, as part of a sorting
6 step or part of one of these other steps.

7 Q. Looking at limitation 1C.1 says:

8 The control module retrieves other
9 digital images whose related information is
10 the same as the selected digital image.

11 Do you see that?

12 A. I do.

13 Q. You agree that retrieve requires
14 extracting a subset of images from a larger
15 set, correct?

16 A. No, I disagree. This retrieves
17 only requires digital images whose related
18 information is the same as the selected
19 digital image. If all of the images have
20 related information of the same as the
21 selected digital image, then it would
22 retrieve all images.

23 And to be clear, that's Nagaoka
24 retrieves digital images based on similarity
25 to the face recognition information of the

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2 selected person folder.

3 Q. Does Nagaoka ever use the word
4 "retrieve" in his specification?

5 A. I don't know, I would have to
6 check.

7 Q. Could you tell me where Nagaoka
8 does this retrieve function as stated in
9 limitation 1C.1?

10 A. So we have been talking about this
11 in regarding the facial recognition feature
12 in paragraph 113 and I explain how it
13 retrieves the unknown faces and selects them
14 for display in 406 and sorts them based on a
15 similarity measure, in this example in
16 Figure 6 being similar to Momoko.

17 Q. But Nagaoka does not use the word
18 "retrieve" anywhere in his disclosure,
19 correct?

20 A. As I said, I don't recall
21 specifically checking to see if Nagaoka ever
22 uses the word "retrieve."

23 Q. And as you just mentioned earlier,
24 Nagaoka describes the operation of sorting or
25 organizing digital images, correct?

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2 MR. MIDDLETON: Objection. Form.

3 A. So as I explained in paragraph 113,
4 Nagaoka meets the requirements of claim
5 limitation 1C.1 because it does retrieve
6 images, other digital images whose related
7 information is the same as the selected
8 digital image. And in particular it
9 retrieves those images for a display based on
10 them being similar to Momoko.

11 If we look at Figure 6, we can see
12 this retrieval step in part through these two
13 buttons on the bottom. There are two
14 options, one is to show all photos and the
15 other option is to show other people that in
16 this case are similar to Momoko.

17 So it very clearly has an option to
18 either display all photos or to only show
19 photos that are similar to Momoko.

20 Q. Looking at paragraph 113 where you
21 have discussed Figure 6 and then you point to
22 Nagaoka's disclosure, I think this is
23 column 5, lines 25 to 29, and I'm just going
24 to read from Nagaoka's disclosure, which you
25 have cited in your report column 5, line 25,

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2 is says:

3 Once the user has selected the
4 person folder for matching with unknown faces
5 which serve as comparison model, the face
6 recognition unit 36 applies face recognition
7 to determine similarity of unknown faces to
8 the selected model.

9 Now, based on what you have cited,
10 could you tell me how this passage relates to
11 retrieval -- the control module retrieves
12 other digital images whose regular
13 information is the same as a selected digital
14 image as required by the claim element?

15 A. Sure. It does so in multiple ways.
16 I cite to that section, I also cite to
17 Figure 6. And as I just explained, Figure 6
18 has two buttons at the bottom. One button is
19 to show all notes and the other button is to
20 show other people similar to Momoko and that
21 is a disclosure of retrieving images, other
22 digital images whose related information is
23 the same as the selected digital image. So
24 that's at least one example.

25 Additionally, even based on the
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2 textual description in column 5 that you just
3 read, if it displays all unknown photos. It
4 also displays them as being similar to Momoko
5 and so that is a retrieval based on the
6 related information being the same as the
7 selected digital image because they all have
8 some similarity and they are displayed based
9 on that similarity. So there's two
10 disclosures that I pointed to in
11 paragraph 113.

12 Q. Let's first look into this
13 disclosure which you pointed in column 5
14 because here, first of all, I just see the
15 user selecting a folder, I don't see the
16 control module doing any retrieval. Again,
17 missing something, could you point to where
18 exactly in this disclosure from column 5,
19 line 25 to 29 which you have cited in your
20 report the control module is doing the
21 retrieval function?

22 A. Well, again, I've cited to multiple
23 sections of Nagaoka here and I have explained
24 how -- let's see. When we look slightly
25 higher in column 5, just the previous

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2 sentence or two, that when the user dragged
3 and drops, it displays faces that are unknown
4 in 406. And so that is a disclosure to a
5 person of skill reading Nagaoka that it
6 retrieves unknown faces and displays it in
7 406. So that is one disclosure.

8 And as I said, the button at the
9 bottom of 406 labeled "show other people" and
10 similar to Momoko is a second disclosure.

11 Q. Looking at this additional line
12 which you just mentioned couple lines above
13 again in column 5, I think you mentioned --
14 this is line 22 probably, here again it says:

15 The user may drag and drop.

16 I don't see any control unit or
17 control module retrieving other digital
18 images, correct?

19 A. I disagree. It says:

20 The user may drag and drop any of
21 the faces from an unknown window display
22 portion 406, i.e., displaying faces from
23 imported digital photos that have not been
24 associated with a particular person folder.

25 A person of skill reading this

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2 would unequivocally understand that 406 needs
3 to retrieve the unknown photos to display
4 them in 406, otherwise that could never
5 occur. So again, that is one disclosure.

6 Another disclosure is that the user
7 can press the "show other people" button
8 which would do an additional retrieval to
9 only show photos that would determine to be
10 similar to Momoko and that would be -- that
11 would again display those photos in 406 that
12 are similar to Momoko. And a person of skill
13 would understand that that works by
14 retrieving those photos so that they can be
15 selected for the purpose of -- sorry. They
16 would be selected so that as part of the
17 retrieval process for the purpose of
18 displaying in about 406.

19 Q. So just to be clear, your analysis
20 about this limitation is not what exactly or
21 explicitly disclosed in Nagaoka, but obvious
22 analysis based on POSITA, correct?

23 A. So to clarify, I do not have an
24 opinion about anticipation. My opinion is
25 about obviousness and that includes how a

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2 person of skill in the art would understand
3 the disclosures of Nagaoka and that's what
4 I've been explaining.

5 Q. When we look at paragraph 115 this
6 is for limitation 1C.2, here the claim
7 requires that the list is output to select
8 another digital image to add in said playlist
9 when said another digital image is selected
10 from other digital images as the candidates
11 by the user.

12 You see that?

13 A. I do.

14 Q. So do you agree that the user must
15 be able to select from this list to add
16 images to a playlist, correct?

17 A. I think at a high level that's
18 right. This requires a list that a user can
19 select from to add to a playlist.

20 Q. We've been talking earlier about,
21 you know, the display window portion 408. So
22 in Nagaoka, when a user drags and drops an
23 unknown face into the model display window
24 portion 408, that is for the purpose of face
25 recognition and not for the purpose of adding

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2 images to a playlist, correct?

3 MR. MIDDLETON: Objection. Form.

4 A. I'm not sure what you mean by "for
5 the purpose of." I think it can do multiple
6 things. I think it -- dragging an image into
7 408 does perform facial recognition and it
8 also drags it into a playlist.

9 Q. Does the --

10 A. Sorry, just to continue.

11 And as I explained earlier, I also
12 have a specific obviousness opinion that a
13 408 is determined to not be a playlist, it
14 would be obvious to modify 408 so it also
15 could be a playlist.

16 Q. Dr. Bederson, you already answered
17 my follow-up question.

18 So moving to Claim 6, you have
19 provided your opinions regarding this claim
20 starting from paragraph 123 all the way
21 through 130.

22 Do you see that?

23 A. I do.

24 Q. And you agree that a Claim 6 is a
25 meta claim whereas Claim 1 is an apparatus

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2 claim, correct?

3 (Court Reporter clarification.)

4 Q. You agree that Claim 6 is a meta
5 claim whereas Claim 1 is an apparatus claim,
6 correct?

7 A. Yes, that's right.

8 Q. And for each limitation of Claim 6,
9 your declaration simply states, see
10 limitation for example 1a and see limitation
11 of 1b, et cetera, correct?

12 A. I would agree that for my analysis
13 of Claim 6 relies on Claim 1 and I refer to
14 different limitations of Claim 1 for each
15 limitation of Claim 6.

16 Q. So just to be clear, you do not
17 provide any separate analysis for the Claim 6
18 limitations, correct?

19 A. I don't provide -- for Claim 6,
20 I don't provide any analysis above and beyond
21 my analysis of Claim 1, except by showing
22 which portion of Claim 1 to refer to for
23 Claim 6.

24 Q. You do not address the defenses in
25 claim language between Claim 1 and Claim 6,

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2 correct?

3 A. That's right. I do not, in this
4 section, and that is in part because, for
5 example, as we discussed earlier Claim 6
6 introduces the concept of a program list, but
7 as I already explained, Nagaoka discloses
8 program list for reasons that we already
9 discussed today, and I describe that in my
10 analysis of Claim 1.

11 Q. Also another example is Claim 6
12 sites associated information rather than
13 related information, correct?

14 A. I think that's right.

15 Q. Did you analyze whether the claim
16 language differences between Claim 1 and
17 Claim 6 affects your obviousness analysis?

18 A. In my analysis of Claim 6, I did
19 not specifically address the differences in
20 language between Claim 1 and Claim 6.

21 Q. And just to be clear, your entire
22 analysis of Claim 6 represents entirely on
23 your analysis of Claim 1 without any
24 independent evaluation of Claim 6 language,
25 correct?

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2 MR. MIDDLETON: Objection. Form.

3 A. As I said earlier, my analysis of
4 Claim 6 relies on my analysis of Claim 1.
5 And I explained how for each limitation of
6 Claim 6 where I showed that limitation is met
7 through my reference to a specific limitation
8 of Claim 1.

9 Q. And in your declaration you also
10 provide opinions about the dependent
11 Claims 2, 3, 4, 9, 10, and 11, correct?

12 A. Yes, that's right.

13 Q. And each of these claims depends on
14 either Claim 1 or Claim 6, correct?

15 A. That's right. Perhaps indirectly,
16 but yes.

17 Q. And if Nagaoka fails to disclose
18 limitations of Claims 1 or 6, then Nagaoka
19 necessarily fails to disclose these dependent
20 claims as well, correct?

21 A. That sounds like a legal question,
22 but my general understanding is that's
23 probably right.

24 Q. So Claim 4 which is your analysis
25 at paragraph 122 you state that:

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2 Nagaoka discloses a reduced image
3 when pointing to Nagaoka's cropped faces.

4 Do you see that?

5 A. That's one of the things that I
6 point to regarding Claim 4.

7 Q. But Claim 4 requires a reduced
8 image is displayed on said display module as
9 the information showing the digital image
10 selected by said control module.

11 That is correct?

12 A. Yes.

13 Q. And do you agree that this requires
14 the reduced image to show a digital image
15 selected by said control module, correct?

16 A. That appears to be what Claim 4
17 describes.

18 Q. Also in the same paragraph,
19 paragraph 122, I think it's the second
20 sentence you state that:

21 Patent Owner's Infringement
22 Contentions similarly accuse cropped
23 thumbnails to meet this claim.

24 Do you see that?

25 A. I do.

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2 Q. And in other portions of your
3 declaration you mention Patent Owner's
4 Infringement Contentions, correct?

5 A. Yes, I do.

6 Q. You understand that Patent Owner's
7 Infringement Contentions against Samsung
8 products have nothing to do with whether
9 Nagaoka discloses the claimed elements,
10 correct?

11 MR. MIDDLETON: Objection. Form.

12 A. That sounds like a legal question
13 for which I don't have an opinion.

14 Q. I mean, I'm pointing to what you
15 have said here and you're citing Patent
16 Owner's Infringement Contentions to prove --
17 to provide your opinions.

18 Do you see that?

19 A. I see that.

20 Q. So whether Samsung's products
21 infringe the '198 patent is a separate
22 question from whether Nagaoka renders the
23 '198 patent claims obvious, correct?

24 MR. MIDDLETON: Objection. Form.

25 A. Again, that sounds like a legal

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2 question for which I don't have an opinion.
3 My opinion here is that there is a
4 similarity, I don't have an opinion about
5 what the legal impact of that similarity is,
6 but it does seem -- based on this, it does
7 seem to me that the patent owner seems to
8 understand this claim and many of these
9 claims in a similar way to the way that I've
10 analyzed it. But again, I'd leave it to
11 others to decide what the legal impact of
12 what that similarity is.

13 Q. But, Dr. Bederson, the question
14 before the board here is whether Nagaoka
15 renders the claims obvious. The infringement
16 contentions are directed to Samsung's
17 products, not at Nagaoka.

18 Do you agree these are separate
19 analysis?

20 MR. MIDDLETON: Objection. Form.

21 A. Again, that sounds like a legal
22 question for which I don't have an opinion
23 whether or not they are completely separate
24 analysis or whether there can be a
25 relationship between them. My opinion is

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2 that there is a similarity and that patent
3 owner's -- thus patent owner's interpretation
4 of many of these claims seems to be similar
5 to the way that I have understood these
6 claims since they appointed to similar things
7 and their infringement contentions as to what
8 I have identified in some of the prior art.

9 Q. So in your declaration, several
10 places you have pointed out that a POSITA
11 would have found it obvious without providing
12 specific supporting evidence, correct?

13 MR. MIDDLETON: Objection. Form.

14 A. I generally disagree, but if you
15 want to point me to a specific example, I'll
16 be happy to show you what evidence I have for
17 any particular opinion.

18 Q. For example, looking at paragraph
19 109 you point to or you state that:

20 A POSITA would have further found
21 it obvious to organize digital images based
22 on underlying metadata, including the date
23 the photo was taken.

24 Do you cite any evidence for that
25 statement?

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2 A. Yes, I do. I cite throughout my
3 report to the background section of the
4 technology starting in paragraph 53, as well
5 as my qualification section starting at
6 paragraph 4.

7 So for example, in the legal
8 standards under obviousness in paragraph 26,
9 I explained that obviousness has been
10 explained to me as based on a number of
11 things, including the scope and content of
12 the prior art. That's one.

13 Two, the differences between the
14 prior art and the claim.

15 Three, the level of ordinary skill
16 in the art. And that includes what a person
17 of ordinary skill in the art would know or
18 did know. And so the background section and
19 my qualifications section give examples of
20 the level of ordinary skill in the art and
21 those are all things that a person of skill
22 in the art would consider in understanding
23 whether the prior art showed that something
24 was obvious.

25 So in this particular case whether
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2 digital images are based on underlying
3 metadata, such as the date the photo was
4 taken, that is disclosed in multiple places
5 in -- in my declaration.

6 So for example, I refer to,
7 starting in paragraph 53, a number of
8 commercial systems including digital cameras,
9 photo management software such as ACDSee,
10 commercial software such as Canon PowerShot,
11 and a photo finder which is research software
12 created by my colleague Ben Shneiderman at
13 the University of Maryland. And that
14 describes, for example, in Figure 4 in
15 paragraph 58, the date associated with a
16 photo and its metadata, including other
17 metadata such as a description, keyword,
18 location, people in the library, people in
19 the photo, and so on.

20 Similarly, I describe PhotoMesa in
21 paragraphs 14 and 15 which was published and
22 well known, that was software that I wrote
23 myself, and that included metadata such as
24 for example the folder that a photo was in
25 and that is illustrated in Figure 1 of

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2 paragraph 14.

3 So there are many disclosures of
4 this concept of that digital images can be
5 based on underlying metadata, including the
6 date the photo was taken.

7 Q. But my question was, where in this
8 paragraph 109 when you state that a POSITA
9 would have further found it obvious to
10 organize digital images based on underlying
11 metadata. In this paragraph, after you
12 finish this sentence you don't point to any
13 specific reference, publication or document
14 to support this statement, correct?

15 MR. MIDDLETON: Objection. Form.

16 A. So I did and I did not need to cite
17 to the background section in paragraph 109
18 because the background section as well as my
19 qualifications, apply to everything that a
20 POSITA would have known when they are reading
21 the disclosures of the prior art, such as
22 Nagaoka.

23 MR. MIDDLETON: Counsel, we've
24 been going for about an hour and it's
25 12:30, can we break for lunch soon?

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2 MR. JAVED: Yeah, I think this is
3 a good time to take a break.

4 THE COURT REPORTER: We're off the
5 record.

6 (Off the record.)

7 THE COURT REPORTER: We're back on
8 the record.

9 BY MR. JAVED:

10 Q. Dr. Bederson, for Ground 2, you're
11 relying on the combination of Nagaoka and
12 Benyamin, correct?

13 A. Yes, that's right. And since this
14 is an obviousness ground, it also includes
15 the knowledge of a person of skill in the
16 art.

17 Q. I have Exhibit 1005 in the chat
18 group. Let me know when you downloaded it.

19 (Exhibit 1005 was introduced.)

20 A. Okay.

21 Q. Do you recognize this document?

22 A. Yes, this is U.S. Patent 6,721,489
23 that I refer to as Benyamin.

24 Q. Benyamin relates to a playlist
25 manager that can be used to create and to

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2 update playlists, correct?

3 A. Benyamin does include a playlist
4 manager that can be used to create and update
5 playlists.

6 Q. And Benyamin means disclosing
7 arguments are directly related to audio
8 tracks, correct?

9 A. Well, it's quite clear as disclosed
10 in the second sentence of the abstract that
11 the playlists can be used for audio
12 information, visual information or
13 combination of audio and visual information.

14 Q. Benyamin's primary disclosing
15 embodiment involves a music server installed
16 in an automobile, correct?

17 A. Again, Benyamin is quite clear it
18 applies equally to audio information and
19 visual information, but I do agree that it
20 describes a -- does include a description of
21 an audio system in an automobile.

22 Q. Benyamin does not disclose a
23 digital image recording and reproducing
24 apparatus as described in the '198 patent,
25 correct?

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2 A. Well, to be clear, Benyamin
3 absolutely does disclose digital images and
4 management of digital images, I explain that
5 in my declaration. But for example, in
6 column 3 starting at lines 54, it describes
7 that it addresses visual data including
8 video, animation, slideshow, text, still
9 images, et cetera. Thus, the present
10 invention can be used as a server for video
11 data, visual text data, speech data or any
12 other type of audio visual data.

13 Q. Benyamin does not disclose face
14 recognition technology, correct?

15 A. Well, Benyamin quite clearly
16 automatically categorizes media based on
17 satisfying criteria and it clearly, as I've
18 described, it also describes that the media
19 that it automatically categorizes includes
20 images and video, and it doesn't limit the
21 criteria. So I think a person of skill in
22 the art would understand that it does
23 automatically categorize images based on any
24 criteria and that can include face
25 recognition.

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2 Q. But my question again was, does
3 Benyamin explicitly disclose face recognition
4 technology?

5 MR. MIDDLETON: Objection. Form.

6 A. Well, my analysis is one of
7 obviousness and how a person of skill would
8 understand the disclosures of Benyamin. And
9 for the reasons I just said, a person of
10 skill in the art would understand that
11 Benyamin does disclose automatic
12 categorizations of media, including images
13 and video, and that could include face
14 recognition.

15 So I did not perform an analysis of
16 anticipation, so I don't have an answer --
17 I did not perform an analysis or have an
18 opinion about what it expressly discloses or
19 rather if it expressly discloses face
20 recognition. I don't recall using that
21 language, but for all the reasons I've said,
22 a person of skill would understand that it
23 absolutely would include automatic
24 recognition of content such as face
25 recognition. And regardless of that, a

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2 person of skill in the art would be highly
3 motivated to combine Benyamin with Nagaoka
4 for the reasons that I explained in my
5 declaration in paragraphs 135 through 138.

6 Q. Is there anywhere in Benyamin where
7 face recognition phase is disclosed?

8 MR. MIDDLETON: Objection. Form.

9 A. Again, my analysis is based on
10 whether a person of skill in the art would've
11 been motivated to combine Benyamin with
12 Nagaoka and they would for the reasons that I
13 just finished describing. And a person of
14 skill in the art would understand Benyamin to
15 disclose automatic recognition of media,
16 including digital images and video on a range
17 of criteria that could include face
18 recognition.

19 Q. Does Benyamin disclose any
20 algorithm for face recognition technology?

21 A. Well, it clearly discloses using
22 various criteria to automatically add media,
23 such as digital images and video to
24 playlists. I don't recall it specifically
25 describing an algorithm for face recognition

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2 technology.

3 Q. You did not explain how a POSITA
4 would integrate Benjamin's audio system into
5 Nagaoka's face recognition system, correct?

6 A. I disagree. I did describe how a
7 person of skill in the art would have --
8 would have added the telop and selecting many
9 of features of Benjamin to Nagaoka, which are
10 the -- some of the specific disclosures of
11 Benjamin that I relied on for this
12 combination.

13 Q. Did you, in your declaration,
14 specifically state how these two references
15 would be indicated?

16 MR. MIDDLETON: Objection. Form.

17 A. Yes, I did. So for example, in
18 paragraph 139 addressing Claim 5 and its
19 requirement about using a telop, I explained
20 how Benjamin's telop would be used with
21 Nagaoka's system to offer a way for a user to
22 confirm that a track should be added to the
23 playlist using that telop.

24 Q. Did you provide any specific
25 details what modifications would have to be

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2 done to Nagaoka to integrate Benyamin?

3 A. I'm not sure what do you mean by
4 "details." If you mean using an extremely
5 well known telop or window to add to one
6 graphical user interface to add to another
7 graphical user interface, I explained how a
8 POSITA would have been familiar with the wide
9 range of graphical user interfaces, including
10 telops, not only the ones of Benyamin, but I
11 also explained in the background section
12 starting in paragraph 53 as well as my own
13 qualification section starting in paragraph 4
14 how telops such as pop-up windows for showing
15 additional information can be added to a GUI.

16 So one example is in paragraph 14
17 where I showed my own work of PhotoMesa that
18 was published and freely available software
19 that was widely used, there is a picture of a
20 graphical user interface with a pop-up window
21 which shows a larger thumbnail which is a
22 form of a telop.

23 I explained in my Ground 2 section
24 in the motivation to combine in paragraphs
25 135 to 138 how this kind of integration was

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2 not only well known, but it was using known
3 methods to yield predictable results and it
4 would've required minimal modifications and
5 would not have required undue experimentation
6 and would have resulted in a predictable
7 result.

8 Q. There is no teaching solution on
9 motivation in either references for the
10 combination, correct?

11 A. I disagree for many of the reasons
12 that I've just explained.

13 Q. Could you point to me in Nagaoka
14 where Nagaoka disclosures teaches such as
15 motivation to modify the system, the Nagaoka
16 system?

17 A. Sure. In my paragraph 139 in the
18 last sentence, I explain that using the telop
19 of Benyamin furthers Nagaoka's goal to
20 organize even hundreds of photos in a short
21 time based on the people appearing therein.
22 And for the reasons I just explained or
23 summarized from the background section of my
24 report as well as my qualifications, a person
25 of skill in the art would have been highly

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22 Q. So looking back at paragraph 139,
23 it is your testimony that Nagaoka's goal to
24 organize even hundreds of photos in a short
25 time based on the people appearing therein,

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2 is this additional motivation for the
3 combination; is that right?

4 A. That is part of the motivation that
5 I described.

6 Q. And it is your testimony that
7 Nagaoka -- the system disclosed in Nagaoka is
8 unable to display or organize even hundreds
9 of photos in a short time based on the people
10 appearing therein?

11 MR. MIDDLETON: Objection. Form.

12 A. I disagree. Nagaoka explains that
13 one implementation of the present invention
14 goes on to explain can be used to allow the
15 user to organize hundreds of photos based on
16 people in a few minutes. So that's one of
17 the things that it supports and so a person
18 of skill reading this would understand that
19 they would be motivated to further support
20 that goal by, for example, including
21 Benyamin's telops.

22 Q. But just to be clear, Nagaoka's
23 goal to organize even hundreds of photos in a
24 short time based on people appearing therein
25 is already supported and disclosed in

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2 Nagaoka?

3 A. I think Nagaoka does describe that
4 it can support organizing hundreds of photos
5 and it's also a goal to support organizing of
6 large numbers of photos and so a person of
7 skill would understand that if there was a
8 way to further improve that goal, then they
9 would be motivated to modify Nagaoka by using
10 well known technologies such as the telop of
11 Benyamin.

12 Q. Let's move to Ground 3.

13 Dr. Bederson, I just added
14 Exhibit 1006 in the chat. Let me know once
15 you have downloaded it.

16 (Exhibit 1006 was introduced.)

17 A. Okay. I have downloaded this
18 exhibit.

19 Q. Do you recognize this document?

20 A. I do.

21 Q. Could you tell me what it is?

22 A. It is U.S. Patent 8,024,757.

23 I refer to this as Nara.

24 Q. And just to clarify, for Ground 3,
25 what references did you rely on?

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2 A. For Ground 3, I relied on the
3 references Nagaoka and Nara and since this is
4 an obviousness ground, I also included the
5 knowledge of a person of skill in the art.

6 Q. Nara relates to a digital broadcast
7 receiver capable of reducing time and labor
8 to backup contents recorded on one recording
9 medium to another recording medium.

10 Is that correct?

11 A. I see that is part of the
12 description of Nara from the abstract. But
13 as I explained in paragraph 142, more
14 generally Nara describes organizing digital
15 images into lists and managing the content
16 using digital recorders similarly to Nagaoka.

17 Q. Nara is about backing up recorded
18 broadcast content from one medium to another,
19 correct?

20 A. I think it is true that Nara
21 includes backing up media from one device to
22 another, but as I explained in paragraph 142
23 more generally it describes organizing
24 digital images into lists and managing the
25 content using digital recorders.

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2 Q. And Nara's generally directed at
3 digital broadcast receivers, correct?

4 A. Again, Nara does disclose digital
5 broadcast receivers. But as I explained in
6 paragraph 142, a person of skill in the art
7 would understand Nara more generally to
8 describe organizing digital images into lists
9 and managing the content using digital
10 recorders.

11 Q. And Nara does not disclose face
12 recognition technology, correct?

13 A. Nara discloses generally
14 automatically extracting and rearranging
15 content according to content attributes that
16 are recorded in recording medium that is
17 described, for example, in column 5 lines 34
18 through 36. It does not restrict the kinds
19 of attributes or automatic extraction of
20 those attributes, so a person of skill in the
21 art would understand that that could include
22 face recognition of -- from images and video.

23 Q. Nara does not disclose face
24 recognition algorithm anywhere in his
25 disclosure, correct?

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2 A. Again, as I just said, Nara
3 discloses generally automatically extracting
4 and rearranging the contents of media
5 according to content attribute, it does not
6 restrict that automatic extraction to any
7 particular kind and so a person of skill in
8 the art reading Nara would understand that
9 that could include face recognition. But
10 sitting here right now, I don't see it
11 specifically describing an algorithm for face
12 recognition.

13 Q. And just to confirm, Nagaoka does
14 not disclose more than one recording medium,
15 correct?

16 A. I disagree. So if you look at
17 Nagaoka column 3 starting at around Line 17
18 it says that:

19 The image input device 20 may be
20 one or more of any number of devices for
21 providing digital image data derived from
22 photographic film or a digital camera, e.g.,
23 a recording medium (a CD-R, floppy disk,
24 et cetera).

25 Q. But Nagaoka has no concept of

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2 backing up from one medium to another,
3 correct?

4 A. I disagree. Nagaoka describes an
5 image input device 20 which can be a digital
6 camera. And then it also describes copying
7 those images into image memory 32. That
8 copying of those images is a form of backup.

9 Q. Could you provide me where exactly
10 is that disclosed?

11 A. Well, I just finished reading some
12 of the disclosure about image input device 20
13 that can be a digital camera. We discussed
14 earlier image 32 and how images can be
15 retrieved and copied to 32. So a person of
16 skill would understand that when an image is
17 copied from a camera into image memory within
18 the media organizing and processing unit,
19 that is a copy which is a backup.

20 So for example, if image input
21 device 20 went away for some reason and the
22 images had been copied to image memory, the
23 system would still have access to the images
24 and image memory even though they no longer
25 had access to the images in the image input

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2 device 20 and thus image memory would be a
3 form of backup.

4 Q. So what you just said is based on
5 the knowledge of POSITA, but not an explicit
6 disclosure in Nagaoka, correct?

7 A. I disagree. That is based on how a
8 person of skill in the art would read Nagaoka
9 and how they would understand Nagaoka's
10 disclosures.

11 Q. But that, again, is POSITA's
12 understanding Nagaoka does not disclose the
13 concept of backing up from one recording
14 medium to another, correct?

15 MR. MIDDLETON: Objection. Form.

16 A. I disagree for the reasons I said.
17 Since the person of skill in the art reading
18 Nagaoka would understand it in the way that I
19 just described, Nagaoka does disclose that.

20 Q. I'm still confused. The section
21 you pointed out in Nagaoka, I don't see any
22 disclosure about backup from one medium to
23 another. Could you explain again because I'm
24 looking at, you know, column 3 starting at
25 line 16, I think that's what you were reading
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2 earlier?

3 A. Sure. So when a person of skill in
4 the art reads Nagaoka, they would see that in
5 column 3 starting at around line 16, it
6 includes an image input device 20 that can be
7 a digital camera. It goes on to explain that
8 at line 25, the media organizing and
9 processing unit 30 receives digital image
10 data from the image input device 20.

11 So that receiving is -- that
12 receiving results in the images from the
13 image input device 20 being copied to the
14 image memory 32 described in part in
15 column 3, lines 45 through 49. So when a
16 person of skill in the art reads these three
17 disclosures from column 3, they would
18 understand that images are retrieved from the
19 digital camera and stored on image memory 32
20 and that is a form of backup. Because as I
21 said, if the digital camera was no longer
22 available, the images would still be
23 available in image memory 32.

24 Q. Again, the disclosure you just
25 mentioned, it does not say that all the data

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2 from image input device 20 is stored on image
3 memory 32; is that right?

4 A. As I said, in column 3, lines --
5 line 25 it says that the media organizing and
6 processing unit 30 receives digital image
7 data from the imaging input device 20.
8 I don't know if it specifically describes --
9 it says, receiving all of the images from the
10 digital -- the input -- sorry, the image
11 input device 20 or not. I would have to look
12 at Nagaoka more thoroughly to answer that
13 question.

14 Q. What is your understanding of the
15 word "backup" based on your experience and
16 expertise teaching and, you know, work?

17 A. Well, that is not a claim term or
18 even a term that I think shows up in the
19 '198 patent, so I certainly did not offer a
20 construction or a definition of that word.
21 So I don't have a construction or a
22 definition to offer to you today.

23 Q. But based on your experience when
24 we say backup the data from one medium to
25 another, what does that mean?

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2 A. As I just said, I really don't have
3 definition to offer you. I did explain
4 sitting here today this obviously was not in
5 my declaration but why I think Nagaoka
6 discloses a form of backup at least because
7 it makes a copy of an image that is available
8 if the original image device is no longer
9 available. So that's not a definition, but I
10 think that's a disclosure that a person of
11 skill in the art reading it would understand
12 is a form of backup.

13 Q. Can you point me to any passage in
14 your declaration where you explain the
15 specific technical steps a person of ordinary
16 skill in the art would take to modify Nagaoka
17 to incorporate Nara's dubbing capabilities?

18 A. First of all, as I explained in
19 paragraph 147, I don't believe that actual
20 dubbing is required by the '198 patent, it
21 only requires creating a list that later can
22 be used for dubbing. I then go on to explain
23 in paragraph 148 how should the board kind
24 that dubbing is a requirement of the claim
25 that Nara discloses this and how a person of
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2 skill would've been motivated to combine
3 Nagaoka with Nara to use Nara's dubbing and
4 what that would look like. I did not -- my
5 understanding is -- well, that a combination
6 does not require engineering work to actually
7 build a system that combines two pieces of
8 art, but I did show in sufficient detail how
9 a person of skill in the art would have
10 modified Nagaoka to use Nara's dubbing.

11 So for example, I explained that
12 they could combine Nagaoka with Nara to
13 create backups of the digital images related
14 information in playlists based on Nara's
15 disclosure of recording on the recording
16 medium the list of programs from the
17 receiver.

18 Q. Is there any teaching suggestion of
19 motivation in either references for the
20 combination which you just pointed out?

21 A. Yes, I addressed this in my
22 paragraph 142 through 145. So for example,
23 I explain motivation to combine such as in
24 paragraph 143 I explain that such a
25 combination involves a combination of prior

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2 art elements according to known methods to
3 yield predictable results, which would have
4 been, one, motivation. They also, as I
5 explain in paragraph 144, would've had a
6 reasonable expectation of success in that it
7 would've required minimal modifications that
8 would not have required undue experimentation
9 and would have yielded the predictable
10 results.

11 Furthermore, a person of skill in
12 the art would've been motivated based on
13 their knowledge, which I explain in the
14 background section starting in paragraph 53
15 as well as in my qualification section
16 starting in paragraph 3 or 4. I think it's
17 4.

18 Q. You did not provide any suggestion
19 or motivation in Nagaoka's disclosure to
20 combine the dubbing functionality for Nara,
21 correct?

22 A. I disagree. I think I just
23 explained it.

24 Q. Could you point to me where -- what
25 disclosure you just pointed out in Nagaoka

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2 which suggests teachings for the combination?

3 A. Sure. I explained this throughout
4 paragraphs 142 through 145. A person of
5 skill in the art would've been motivated to
6 combine Nagaoka and Nara to improve Nagaoka
7 for any number of reasons, such as the ones
8 I've explained as well as just general
9 improving Nagaoka based on the knowledge that
10 they would have, as well as some of the
11 specific reasons I've already described, such
12 as providing some of the benefits of Nara,
13 for example to offer dubbing capabilities.

14 I also explained specific
15 motivations based on having a reasonable
16 expectation of success requiring minimal
17 modifications and not having to require any
18 undue experimentation and having an
19 expectation of a predictable result.

20 Q. Again, my question was, the
21 disclosure from Nagaoka, which suggests or
22 provides motivation for this combination.
23 That I don't see in your declaration. Could
24 you point to me if it is there?

25 A. I think I've already explained that
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2 Nagaoka provides a general system including
3 the ability to support digital images into
4 lists and managing the content using digital
5 recorders and a person of skill in the art
6 would be motivated to use that system and
7 improve it according to their knowledge and
8 the reasons that I've described.

9 Q. So your testimony is because
10 Nagaoka has this media recording systems,
11 that's why a POSITA would be motivated to
12 combine the dubbing functionality from that;
13 is that correct?

14 A. That's part of the explanation.
15 I think I just finished giving my
16 explanation, but that was part of what I
17 said.

18 Q. So any video recording system is
19 right for improvement and to include dubbing
20 functionality; is that your testimony?

21 A. No. I did not say anything about
22 any recording system. I gave a specific
23 opinion about Nagaoka and Nara.

24 Q. Other than Nagaoka disclosing the
25 video recording or video system, what else is

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2 there in Nagaoka which points or suggests or
3 teaches that a dubbing system from Nara
4 should be combined?

5 A. Well, as I explained in paragraph
6 47 additionally to what I've already
7 explained, Nagaoka also describes a creation
8 of a list that can be used for a playlist.
9 It already describes a list that can be used
10 for one thing so a person of skill would be
11 motivated to use that list for other natural
12 purposes that are well within the scope of
13 media management. And to the extent that
14 dubbing specifically is required, then adding
15 on Nara's ability to dub the items in the
16 list as well as using that list for a
17 playlist would be something that would be --
18 a POSITA would be motivated to do because in
19 addition to the reasons I just said, they
20 have already got a list that can be used for
21 one thing and if they could improve their
22 system to also use that list for dubbing that
23 would be an advantage.

24 Furthermore, Nara provides various
25 benefits that I describe in paragraph 148.

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2 The benefits that I describe come from
3 multiple places, from Nagaoka, from Nara,
4 from the background, knowledge of person of
5 skill in the art and their general
6 understanding of what such combination would
7 entail.

8 Q. Let's go to paragraph 147 and I
9 think here you are providing your opinions
10 regarding claim 13.

11 A. Okay.

12 Q. Claim 13 is directed to dubbing
13 list-creating method; is that correct?

14 A. Claim 13 preamble starts with a
15 dubbing list-creating method.

16 Q. And you state in paragraph 147
17 that:

18 A POSITA would have understood that
19 there is nothing distinct between a dubbing
20 list and a playlist except for the purpose to
21 which the list is to be used.

22 Correct?

23 A. That's right.

24 Q. But will you agree that the
25 '198 patent defines a dubbing list as a list

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2 of programs to be recorded on another
3 recording medium, correct?

4 A. I don't think it defines that, but
5 it does describe that's what this dubbing
6 list creating method is for is to create the
7 dubbing list, which potentially later on
8 could be used for recording onto another
9 recording medium.

10 Q. That was my second question.

11 Did the purpose of dubbing is to
12 copy programs from one recording medium to
13 another, correct?

14 A. I don't think this provides a
15 definition or a purpose, it merely
16 requires -- describes a requirement is that
17 there is a dubbing list and that dubbing list
18 it explains a potentially could be used in
19 the future to record onto another recording
20 medium. But the actual requirement is only
21 to create the list, the dubbing list.

22 Q. And just to be clear, Nagaoka does
23 not disclose any concept of dubbing, correct?

24 A. I didn't offer an opinion about
25 that. It might.

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2 Q. But using Nara's dubbing
3 functionality to compensate Nagaoka's
4 deficiencies, correct?

5 MR. MIDDLETON: Objection. Form.

6 A. As I explained in paragraph 147, I
7 don't think that Claim 13 requires any actual
8 dubbing, so I don't think that Nagaoka
9 necessarily has any deficiencies, but to the
10 extent that dubbing is required, then Nara's
11 disclosure of dubbing is something that I
12 showed how a POSITA would combine with
13 Nagaoka. And in any case, even Nara's
14 disclosure of dubbing is also sufficient as I
15 explained in paragraph 147 to show how
16 Nagaoka's lists can also be used as a dubbing
17 list, but I did not identify any deficiency
18 in Nagaoka.

19 Q. For each limitation of Claim 13,
20 your declaration simply cross references the
21 analysis of Claims 1 and 6, correct? And
22 this is starting from paragraph 149 all the
23 way through paragraph 155 of your report.

24 A. That is true for claim limitations
25 13A through 13G, but I did provide specific

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2 analysis for 13 preamble in columns 147
3 through 148.

4 Q. And just to be clear, you did not
5 provide any separate analysis for the
6 Claim 13 limitations, 13A through 13G,
7 correct?

8 A. For limitations 13A through 13G,
9 I provided my analysis of Nagaoka in view of
10 Nara by referencing various limitations of
11 Claim 1 and 6.

12 Q. And Claim 13 is an independent meta
13 claim with different language from Claims 1
14 and 6, you agree?

15 A. I think there's a lot of
16 overlapping language, but there's certainly
17 some difference in language.

18 Q. So if Nagaoka fails to disclose the
19 limitations of Claims 1 and 6 the analysis of
20 Claim 13 also fails, correct?

21 MR. MIDDLETON: Objection. Form.

22 A. That sounds like a legal question,
23 so I don't have an opinion about that.

24 Q. Going to put Exhibit 1007 in the
25 chat.

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2 Dr. Bederson, let me know once you
3 downloaded it.

4 (Exhibit 1007 was introduced.)

5 A. Okay.

6 Q. Do you recognize this document?

7 A. I do.

8 Q. Could you describe it to me?

9 A. This is U.S. Patent Publication
10 No. 2003/0099460 and I refer to this as
11 Imada.

12 Q. And for Ground 4, what references
13 are you relying on?

14 A. For Ground 4, I'm relying on
15 references Nagaoka, in view of Nara, Benyamin
16 and Imada. And because this is an
17 obviousness analysis, it also includes the
18 knowledge of a person of skill in the art.

19 Q. And is it correct to say that Imada
20 relates to a recording apparatus for
21 recording a plurality of audio-visual
22 contents stored in an HD to a writable DVD,
23 correct?

24 A. I agree that Imada uses that
25 language in the abstract and as I explained
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2 in paragraph 157 more generally it describes
3 managing content using a recording digital
4 media.

5 Q. And Imada does not disclose face
6 recognition technology, correct?

7 A. I don't recall Imada disclosing
8 face recognition technology.

9 Q. Dr. Bederson, for Ground 4, you're
10 asking a POSITA to combine four references,
11 Nagaoka, Nara, Benyamin, and Imada, correct?

12 A. I wouldn't say that I'm asking a
13 POSITA to combine them. I'm saying a POSITA
14 would be motivated to combine them.

15 Q. And you believe these four
16 references are directed to four different
17 problems, correct?

18 A. As I said in paragraph 157, I think
19 all four references are in the same general
20 field of managing content using a recording
21 digital media.

22 Q. But my question was, these four
23 references are solving four different
24 problems, correct?

25 MR. MIDDLETON: Objection. Form.

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2 A. First of all, I don't know that
3 that is relevant to an obviousness analysis.
4 But what I do know is that they are each in
5 the same general field, they disclose many
6 similarities related to managing recordings
7 of digital media and I explain the specific
8 motivations of why a POSITA would be
9 motivated to combine them.

10 Q. But again, the question was that
11 these four references are directed to four
12 different problems, correct?

13 MR. MIDDLETON: Objection. Form.

14 A. I think that these references
15 certainly have different characteristics and
16 there are many differences in their systems
17 that they describe, but they also have many
18 similarities, including all being directed to
19 managing content using a recording digital
20 media and improvements to that management.

21 Q. But you didn't answer my question.
22 It's a simple question: These four
23 references, which we just discussed, are
24 directed to four different problems, correct?

25 MR. MIDDLETON: Objection. Form.

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2 A. So the answer to that is no, they
3 address similar problems and they also have
4 differences.

5 Q. So you're saying these four
6 references, Nagaoka, Nara, Benyamin, and
7 Imada, they were all addressing the same
8 problem?

9 A. I gave my answer, which is that
10 they do address similar problems, they are in
11 the same general field and they also have
12 differences. They're not identical
13 documents, they are different documents.
14 They describe different things and those
15 different things have many similarities,
16 including all addressing managing content
17 using a recording digital media.

18 Q. Apart from what you said about the
19 similarities, my question is about the
20 problems, the problems the inventors of these
21 four references, they are different problems,
22 correct?

23 MR. MIDDLETON: Objection. Form.

24 A. I gave you the answer I did because
25 that's not a yes or no question. These four
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2 references do address some of the same
3 issues, the same problems and they also have
4 differences and also address different
5 problems. So there are similarities and
6 differences.

7 Q. Just to be clear, Nagaoka organizes
8 photos by face recognition. Nara backs up
9 broadcast content. Benyamin manages audio
10 playlist in a car. Imada copies content from
11 an HD to a DVD. Those are four different
12 systems solving four different problems,
13 correct?

14 MR. MIDDLETON: Objection. Form.

15 A. I disagree. You characterized four
16 lengthy documents with one sentence each and
17 so there may be parts of those disclosures
18 which are consistent with your descriptions,
19 but those are not a -- fully characterizing
20 those four documents. All four documents as
21 I explained are in the same general field of
22 managing content using a recording digital
23 media.

24 As a simple example, Nagaoka
25 includes face recognition, but it is not

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2 limited to face recognition. For all of the
3 reasons I've explained, it discloses many
4 other things, including organizing media
5 related to metadata as do the other kinds of
6 prior art as well.

7 Q. Can you point to any single
8 reference that suggests combining all four of
9 these references together?

10 MR. MIDDLETON: Objection. Form.

11 A. Well, first of all, looking at the
12 legal standard section of obviousness in my
13 declaration on page 12, starting at
14 paragraph 26, I do not see any requirement
15 that says that any one piece of prior art
16 must provide a motivation specifically to
17 include any other or all other pieces of
18 prior art to be a valid obviousness
19 combination. Rather, what it explains is
20 there are many factors that could be
21 considered in such a motivation. So for
22 example, in paragraph 27, I list a number of
23 those motivations and I've applied those
24 motivations in describing the combination
25 that I have, including the fact that all four

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2 are in the same general field of managing
3 content using a recording digital media.

4 Q. Could you explain what problem a
5 POSITA would have been trying to solve that
6 would lead them to combine all four of these
7 references?

8 A. To be clear, my understanding of
9 the analysis of obviousness is that there are
10 many factors that can be considered in
11 motivating a person of skill in the art to
12 combine having a single problem that all the
13 pieces of prior art solve is not on the list
14 of criteria that was provided to me here.

15 So I'm not sure I fully understand
16 your question. But I will say that all four
17 references do address issues of improving
18 managing content using a recording digital
19 media.

20 Q. So the only reason to combine all
21 four which is hindsight which is looking at
22 the claims of the '198 patent and working
23 backward. Would you agree with me?

24 MR. MIDDLETON: Objection. Form.

25 A. I disagree and that has nothing to
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2 do with my previous answers. I've explained
3 my motivation to combine these four
4 references in paragraphs 157 through 159 and
5 I did not mention the claims of the
6 '198 patent in that answer, so the answer is
7 no.

8 Q. Should we take a break?

9 A. Okay.

10 THE COURT REPORTER: We're off the
11 record.

12 (Off the record.)

13 THE COURT REPORTER: We're back on
14 the record.

15 BY MR. JAVED:

16 Q. Dr. Bederson, let's move to
17 Ground 6 and I'm going to put four references
18 in the chat group. Let me know once you
19 downloaded them.

20 (Exhibit 1008 was introduced.)

21 (Exhibit 1009 was introduced.)

22 (Exhibit 1016 was introduced.)

23 (Exhibit 1022 was introduced.)

24 A. Okay.

25 Q. Have you seen these documents

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2 before?

3 A. Yes, I have.

4 Q. Could you go through them one by
5 one and describe to me what they are?

6 A. Exhibit 1008 is U.S. Patent
7 Publication No. 2001/0026287, which is a
8 reference I referred to as Watanabe.

9 Exhibit 1009 is U.S. Patent
10 No. 6,953,886, that is a reference I refer to
11 as Looney.

12 Exhibit Number 1016 is U.S. Patent
13 Publication No. 2001/0056434 as a reference I
14 refer to as Kaplan.

15 And Exhibit 1022 is U.S. Patent
16 No. 6,987,221, that's a reference I refer to
17 Platt.

18 Q. So these four references, these are
19 the references you rely on for your opinions
20 for Ground 6?

21 A. That is correct.

22 Q. Watanabe relates to an apparatus
23 and contents management method in a computer
24 having a function of managing the number of
25 duplicated content of music, movies of the

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2 like, correct?

3 A. Watanabe does describe itself with
4 those words in paragraph 2. And as I
5 explained in paragraph 167 of my declaration,
6 more generally it, like Looney, Platt, and
7 Kaplan, all relate to the same general
8 subject matter, organizing digital images
9 into lists and managing the content.

10 Q. And would you agree, again looking
11 at paragraph 2 through 6 of Watanabe, that it
12 is primarily about managing duplication of
13 digital content or specifically managing copy
14 protection, would you agree with that?

15 A. I'm not sure what you mean
16 primarily. Watanabe discloses many things.
17 And while I agree it does disclose management
18 of copyrighted material and copy management,
19 more generally it describes organizing
20 digital images into lists and managing the
21 content.

22 Q. Can you point me to any figure in
23 Watanabe that shows digital images being
24 displayed?

25 A. Well, first of all, Watanabe is
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2 quite explicit that it describes the
3 application to various digital contents,
4 including images. So for example, at
5 paragraph 47, it says that the contents
6 assisted management system one is able to
7 process various digital contents such as
8 music data and image data. And then in
9 paragraph 167 it goes on to explain that
10 image data of movies or the like (moving
11 images) can be recorded and reproduced.

12 As far as disclosures of digital
13 images in the figures, one example is in
14 Figure 13 where in Box 87 there are music
15 notes which are digital images.

16 Q. Could you describe to me again
17 Figure 13 what you're pointing to as digital
18 images?

19 A. So in Figure 13 there's a box in
20 roughly the middle section of the figure that
21 is labeled 87 and 87 consists of multiple
22 columns. And in the left column it is the
23 first row says, Song title. And the next
24 four rows each have two visual music notes
25 and those music notes are digital images.

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2 And as I said earlier, Watanabe is
3 quite clear that its disclosure generally
4 applies equally to digital images and audio.
5 So while the rest of figure -- some other
6 elements of Figure 13 describe audio content,
7 a person of skill reading Watanabe would
8 understand that also discloses digital images
9 and that the audio content in Figure 13 is
10 merely an example.

11 Q. So just to clarify, and for my
12 understanding, you're pointing to the musical
13 note signs as digital images?

14 A. That is one example of the digital
15 images that I pointed to in my analysis of
16 Watanabe.

17 Q. And is it disclosed in the
18 specification that those musical notes are
19 image -- digital images?

20 A. Yes, they are. In paragraph 119,
21 it describes them as icons. So the second
22 half of paragraph 119 says, quote:

23 The display Section 87 displays
24 music data read from the music data storage
25 Section 14 for an icon the contents

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2 transferrable number of times.

3 And it goes on from there.

4 Q. So you're saying because 119 talks
5 about icons and these icons are digital
6 images, that's what you're saying?

7 A. Yes, that's right. Icons I think
8 generally are digital images and the ones in
9 Figure 13 that are depicted as music notes
10 specifically a person of skill in the art
11 reading Watanabe and looking at Figure 13
12 would understand that those are digital
13 images.

14 Q. And could you point to me any
15 disclosure in Watanabe that shows thumbnails
16 of digital images?

17 A. Well, to be clear the '198 patent
18 does not claim thumbnails. But as far as
19 Watanabe, it describes -- for example, in
20 Figure 13, these lists of media which it
21 explains can be digital images. Person of
22 skill in the art reading Watanabe would
23 understand that when a graphical user
24 interface in a relatively small area like
25 this that displays a list of images, it would

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2 display them using thumbnails and that is
3 consistent with the background description
4 that I provided in my declaration starting at
5 paragraph 53. For example, the display of
6 thumbnail images to display lists of images
7 has been available at least since Microsoft
8 Windows 95, as I showed in paragraph 54.

9 I showed a number of other systems that
10 described thumbnails. And I use thumbnails
11 myself in the PhotoMesa system in the papers
12 built and wrote papers about in paragraphs 14
13 and 15.

14 So that is all well-known knowledge
15 that a person of skill in the art would have
16 that they would apply when they read
17 Watanabe's disclosure that its interface can
18 use and apply to digital images.

19 Q. And just again, in paragraph 119
20 when you mention icons, Watanabe does not
21 call them digital images, you're relying on
22 the knowledge of POSITA for that purposes,
23 correct?

24 A. I was relying on Watanabe's
25 disclosure that it applies generally to image
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2 data as well as a person of skill in the
3 art's knowledge that icons at least typically
4 consist of digital images. And as far as the
5 particular icons that are depicted in
6 Figure 13, a person of skill in the art
7 looking at Figure 13 would understand that to
8 be a disclosure of a digital image.

9 Q. So you use the word "typically
10 consist of," can icons be something other
11 than a digital image?

12 A. I didn't offer a definition or
13 construction of icon, so I don't have a
14 specific definition to give you, which is why
15 I use the word "typically." But at the very
16 least a person of skill in the art would see
17 these and see that they certainly look like
18 digital images and this is at very least a
19 disclosure of a digital image.

20 Q. Based on your background and
21 experience what can icons be, like, can they
22 be other than a digital image?

23 A. Again, I don't have a construction
24 or definition to give you, so I cannot
25 provide the full scope and bounds of the

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1 B. Bederson
2 term. What I can say is that when a person
3 of skill in the art reading Watanabe in
4 particular looking at Figure 13 in the
5 context of its specification would understand
6 those notes to be a disclosure of a digital
7 image.

8 Q. Can you point me to any passage in
9 Watanabe, Watanabe specification that
10 describes recording, reproducing, selecting
11 or retrieving digital images?

12 MR. MIDDLETON: Objection. Form.

13 A. I think I've already provided that
14 in that Watanabe describes recording and
15 reproducing and displaying media throughout
16 Watanabe and I explained it in detail
17 throughout this section of my declaration
18 starting -- well, in Ground 6 starting at
19 paragraph 166.

20 And because Watanabe is so explicit
21 that its disclosure applies to digital images
22 as well -- well, through its disclosure of
23 image data and also image data of movies,
24 that is clear that all of its disclosure
25 applies to digital images.

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2 Q. So when you said all the disclosure
3 applies, are you saying that Watanabe does
4 not explicitly disclose recording,
5 reproducing, selecting, retrieving digital
6 images?

7 A. No, that's not what I said. It
8 does describe recording, reproducing,
9 retrieving of digital media. And in
10 paragraph 47, it explains that its contents
11 assisted management system is able to process
12 various digital contents, such as music data
13 and image data. So when a person of skill
14 reads Watanabe they would understand that all
15 of its disclosures of the contents assisted
16 management system is also a disclosure of
17 digital images, of how it processes digital
18 images.

19 Q. So the only basis for your
20 assertion that Watanabe discloses digital
21 images is a general statement in paragraph 47
22 and also what you're referring to in
23 paragraph 119; is that correct?

24 A. There's additional disclosure in
25 167 that I've also already mentioned. An
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2 additional reason is the knowledge of a
3 person of skill in the art that would
4 understand that digital images are a form
5 of media that would be well suited towards
6 managing with the kind of system disclosed in
7 Watanabe, especially given its clear
8 disclosures that it includes digital images.

9 Q. No further questions.

10 MR. MIDDLETON: Can we take a
11 ten-minute break?

12 MR. JAVED: Sure.

13 THE COURT REPORTER: We're off the
14 record.

15 (Off the record.)

16 THE COURT REPORTER: We're back on
17 the record.

18 MR. MIDDLETON: I have no
19 questions. Thank you, Dr. Bederson.

20 MR. JAVED: Thank you,
21 Dr. Bederson.

22 THE COURT REPORTER:
23 Mr. Middleton, are you ordering a
24 rough draft?

25 MR. MIDDLETON: Yes, I'd like the
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1 B. Bederson

2 rough draft, please, but I don't need
3 to order the final.

4 THE COURT REPORTER: It's an
5 automatic with the rough draft and the
6 realtime. It's up to you if you still
7 want the rough.

8 MR. MIDDLETON: Sounds good. Okay,
9 that's fine.

10 MR. JAVED: Candida, if I can get
11 it today or tomorrow, that's fine.

12 THE COURT REPORTER: You'll have
13 the rough draft in a little while.

14 MR. JAVED: Oh, that's perfect.

15

16 (Concluded at 3:19 p.m. Eastern Time)

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B. Bederson

J U R A T

I, BENJAMIN BEDERSON, do hereby
certify under penalty of perjury that
I have read the foregoing transcript
of my deposition taken on the 29th of
April, 2026; that I have made such
corrections as appear noted herein in
ink, initialed by me; that my
testimony as contained herein, as
corrected, is true and correct.

BENJAMIN BEDERSON

Subscribed and sworn to before me
This _____ day of _____, 20__.

NOTARY PUBLIC

Maxell, Ltd.

1	B. Bederson	
2	-----I N D E X-----	
3	WITNESS: BENJAMIN BEDERSON	
4	EXAMINATION BY:	PAGE
5	MR. JAVED	4
6		
7	-----E X H I B I T S-----	
8		
9	PREVIOUSLY MARKED EXHIBITS NUMBER	
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B. Bederson

C E R T I F I C A T E

STATE OF NEW YORK)
 : SS.:
COUNTY OF RICHMOND)

I, Candida Borriello, a Stenographic
Court Reporter and Notary Public for and
within the State of New York, do hereby
certify:

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

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

IN WITNESS WHEREOF, I have hereunto
set my hand this 29th day of April, 2026.


CANDIDA BORRIELLO

Maxell, Ltd.

1 B. Bederson

2 ERRATA SHEET FOR THE TRANSCRIPT OF:

3 Case Name: Samsung v. Maxell

4 Dep. Date: April 29, 2026

4 Deponent: Benjamin Bederson

5 Pg. Ln. Now Reads Should Read Reason

6 _____

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20 _____
BENJAMIN BEDERSON

21 SUBSCRIBED AND SWORN BEFORE ME,

22 This____ day of_____, 20__.

23 _____
24 Notary Public

25 My Commission Expires:_____

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Ex. 2020

1			
1	101	144:23	143
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