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UNCERTIFIED ROUGH DRAFT

CASE NAME: Samsung v. Maxell

DATE: April 29, 2026

REPORTER'S NOTE:

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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 DC.

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 do
24 have some electronic documents with me as
25 well.

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2 Q. That's fine. Dr. Bederson, is
3 there any reason that you can't testify
4 truthfully and accurately today?

5 A. No.

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

10 A. I understand that.

11 Q. And just to confirm this IPR
12 relates to the US patent 8,180,198 correct?

13 A. Yes that's right.

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

17 A. Yes.

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

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

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

24 A. I don't think I can give you an
25 exhaustive list but generally I reviewed my

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2 declaration and several of the documents that
3 are cited in my declaration.

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

6 A. I did.

7 Q. Who did you meet?

8 A. Matt Middleton.

9 Q. Anyone else?

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

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

13 A. I did not.

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

16 A. I don't recall.

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

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

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

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2 (Exhibit 1003 was introduced.)
3 A. Okay.
4 Q. Do you recognize this document?
5 A. I do.
6 Q. What is this document?
7 A. This is the declaration that I
8 provided for this IPR sorry, regarding the
9 '198 patent.
10 Q. And just to clear the record when
11 you said this IPR you mean IPR2025-01314,
12 correct?
13 A. That is right.
14 Q. Now let's turn to page 1 of
15 Exhibit 1003, which is the first page of your
16 expert declaration.
17 A. Okay.
18 Q. Is that your signature on this
19 document?
20 A. It is.
21 Q. And does this document appear to be
22 a true and accurate copy of your declaration?
23 A. It does. I will note I did notice
24 one error that I would like to correct but
25 this is seems to be accurate as I provided it

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2 but there's one error I'd like to correct, as
3 I mentioned.

4 Q. Yeah please correct, what is the
5 error?

6 A. On page 86 that's referring to the
7 page number that I provided in the document
8 so this is the second page of paragraph 180.
9 In the last sentence it looks like I left off
10 a word so that sentence currently starts by
11 reading: Given Watanabe describes a user
12 interface for images. I left off the word
13 filtering. It should say: Given that
14 Watanabe describes a user interface for
15 filtering images.

16 Q. Any other correction?

17 A. No, I think there may be some minor
18 typos not substantive.

19 Q. I'm going to put Exhibit 1001 in
20 the chat. Dr. Bederson, let me know once you
21 have downloaded it?

22 (Exhibit 1001 was introduced.)

23 A. Okay.

24 Q. Do you recognize this document?

25 A. I do.

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2 Q. Is this US patent number 8180198?

3 A. It is.

4 Q. And if I refer to this patent as
5 the '198 patent will you know that what I
6 mean?

7 A. Yes.

8 Q. Dr. Bederson, what is your overall
9 understanding of what the '198 patent is
10 describing?

11 A. In column 1 of the patent starting
12 at around line 11 it describes it he have is
13 by saying the present invention relates to
14 digital recorders capable of recording
15 digital images as in TV broadcasting in an
16 HDD or a DVD and particularly to a digital
17 recorder capable of creating a playlist.

18 Q. And what problem did the '198
19 patent seek to solve?

20 A. Well later in column 1 starting at
21 line 59 the '198 patent describes itself by
22 saying the digital image recording and
23 reproduction apparatus according to the
24 invention can provide enhanced usability.

25 Q. So you agree that the '198 patent

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2 describes a digital recorder that records
3 programs, correct?

4 A. I think that's right.

5 Q. And you agree the '198 patent
6 describes a system where a user selects a
7 design program from a list of programs
8 already recorded on the recording medium,
9 correct?

10 A. I think that's probably right.

11 Q. And the system then retrieves other
12 programs from the recording medium meets
13 certain retrieval conditions.

14 Is that also correct?

15 A. Well Claim 1 describes retrieving
16 other digital images whose related
17 information is the same as the selected
18 digital image so that at least describes
19 retrieving a digital image that has certain
20 characteristics.

21 Q. And the retrieved programs are then
22 displayed as candidate perhaps that can be
23 added to a playlist, correct?

24 A. I see Claim 1 describes something
25 similar at column 6 starting at line 58, it

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2 describes outputting a list identifying the
3 other digital images retrieved based on the
4 related information to select another digital
5 image to add in said playlist.

6 So that is describing a display of
7 some digital images that can be added to a
8 playlist.

9 Q. Dr. Bederson let's go to column 3
10 line 14. You are there?

11 A. Okay.

12 Q. You see the patent describes that
13 quotation quote starting quote the control
14 unit 42 retrieves information associated with
15 the other programs stored in the recording
16 medium, based on associated information on
17 the user-selected program and retrieval
18 conditions, so as to select a program
19 candidate.

20 You see that?

21 A. I do.

22 Q. You agree this passage describes
23 the control unit retrieving programs from the
24 recording medium, correct?

25 A. Well this sentence that you read

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2 describes retrieving information associated
3 with the other programs. I don't see it
4 describing retrieving the programs
5 themselves.

6 Q. So you agree that this passage
7 describes the retrieval based on associated
8 information on the user-selected program and
9 retrieval conditions, correct?

10 A. So this sentence does describe
11 retrieving information associated with the
12 other programs that are based on associated
13 information of the user-selected program.

14 Q. You agree that the programs
15 retrieved are a subset of all the programs
16 stored in the recording medium, correct?

17 A. It doesn't describe retrieving a
18 subset. I think it would depend on the
19 associated information.

20 Q. And you agree that the '198 patent
21 uses the word retrieve and not the word
22 "sort," correct?

23 A. Well I see this sentence uses the
24 term "retrieve." This sentence that we've
25 been talking about does not use the term

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2 "sort."

3 Q. Do you agree that retrieve and sort
4 are different operations?

5 A. I think there could be some overlap
6 between retrieving and sorting generally but
7 I would agree that they are not the same,
8 certainly at least not always the same.

9 Q. And would you agree that a person
10 of ordinary skill in the art would understand
11 retrieve to mean extracting a subset of items
12 from a set of stored items, correct?

13 A. I haven't considered the definition
14 of retrieve or seen a construction, so I
15 don't have an opinion sitting here today
16 about what the definition of retrieve is.

17 Q. So just to confirm in your
18 declaration you did not offer any conception
19 of the term retrieve or retrieval, correct?

20 A. Well my opinion is in my
21 declaration but I don't recall specifically
22 offering a construction of the term retrieve
23 or retrieval.

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

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2 A. Okay.

3 Q. So starting with the preamble which
4 is a digital image recording and reproducing
5 apparatus according to a display module.

6 Do you see that?

7 A. I do.

8 Q. What is a digital image recording
9 and reproducing apparatus, according to the
10 claim?

11 A. I didn't offer a construction of
12 that term so I don't have a construction or
13 definition to give you. What I did was
14 analyze the various prior art I considered
15 and showed how that prior art met the
16 requirements of that claim limitation based
17 on its plain and ordinary meaning.

18 Q. And does the apparatus as disclosed
19 in Claim 1 record and reproduce digital
20 images?

21 A. So the preamble that section that
22 we are talking about says a digital image
23 recording and reproducing apparatus, so I
24 agree that describes an apparatus that
25 records and reproduces digital images.

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2 Q. Let's move to claim element one A
3 which is the next limitation, which is an
4 output module which displays a variety of
5 digital images and plurality of related
6 information concerning said digital images
7 recorded in a recording medium on the display
8 module each digital image corresponding to
9 one of said plurality of related information.

10 Do you see that?

11 A. I do.

12 Q. Dr. Bederson what does related
13 information mean here?

14 A. Well this limitation describes the
15 related information as concerning said
16 digital images so I think a POSITA person of
17 ordinary skill in the art would understand
18 the related information to certain digital
19 images. There are examples in the '198
20 patent of information, including A, program
21 description, its start and stop time and
22 channel. So I think a person reading a
23 POSITA reading this patent would understand
24 those to be examples of related information,
25 I would think a person of skill in the art

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2 would understand those all to be examples of
3 what are commonly described of as a metadata.

4 Q. And you agree the claim requires
5 that each digital image corresponds to one of
6 said plurality of related information,
7 correct?

8 A. This limitation one A describes
9 that each digital image corresponds to one of
10 said plurality of related information.

11 Q. Let's move to claim element 1B and
12 I won't read the whole limitation but it
13 starts as control module which selects a
14 digital image and it ends in image recorded
15 in said recording medium.

16 Do you see that?

17 A. I do.

18 Q. What is the control module
19 according to the '198 patent?

20 A. I don't recall the '198 patent
21 specifically describing a control module but
22 certainly based on this claim limitation it
23 must meet the requirements of this
24 limitation, including selecting a digital
25 image to add in the playlist, along with the

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2 other requirements of this limitation.

3 Q. So just to clarify you agree that
4 this limitation requires the control module
5 to select a digital image, correct?

6 A. Yes, that's right.

7 Q. And as you just mentioned earlier
8 the selection must also be to add in a
9 playlist, correct?

10 A. Well to be clear, this limitation
11 does not require adding to a playlist. This
12 limitation requires selecting a digital image
13 to add in a playlist presumably for future
14 actual adding.

15 Q. So again just to clarify, you agree
16 that selection must be quotation to add in a
17 playlist quote end, correct?

18 A. Well the limitation does say a
19 control module which selects a digital image
20 to add in a playlist.

21 Q. And you agree the selection is
22 based on one of the plurality of information
23 concerning the digital image, correct?

24 A. That's part of the requirement.
25 Just to be clear, the full requirement is

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2 that selection is based on one of the
3 plurality of information concerning the
4 digital image recorded in said recording
5 medium.

6 Q. So the control module not the user
7 is the entity performing the selection in
8 this limitation, correct?

9 A. This limitation does not provide
10 any restrictions on what the control module
11 might respond to or in what situations the
12 control module performs, but I agree that
13 this limitation itself describes the control
14 module performing the selecting of a digital
15 image.

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

18 A. This limitation does not use the
19 word "organizes."

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

22 A. This limitation does not use the
23 word "sorts."

24 Q. And further this limitation does
25 not say a control module which browses,

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2 correct?

3 A. This limitation does not use the
4 word "browses."

5 Q. And just to confirm again, the
6 claim requires or part of the claim requires
7 that the control module which selects a
8 digital image to add in a playlist, correct?

9 A. You read that portion of the
10 limitation correctly.

11 Q. Let's move to claim element 1C.1.
12 Notation of these elements are from -- are
13 based on your declarations. I'm just
14 following how you laid out these claim
15 elements. I think that is actually page 14
16 of your report. So this next limitation it
17 starts with wherein for a selected digital
18 images selected by the user said control
19 module and has further limitations and ends
20 with being candidates for adding in said
21 playlist.

22 Do you see that?

23 A. I do.

24 Q. You agree this select requires a
25 selected digital image selected by the user,

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2 correct?

3 A. This limitation refers to a
4 selected digital image selected by the user.

5 Q. And you agree that after the user
6 selects the digital image the control module
7 retrieves other digital images, correct?

8 A. Well this limitation requires
9 retrieving other digital images whose related
10 information is the same as the selected
11 digital image. So that's the requirement.
12 There is a selected digital image and there's
13 a retrieval of other digital images whose
14 related information is the same as the
15 digital image, but I don't see any ordering
16 requirement here.

17 Q. And are these retrieved images
18 candidates for adding in a said playlist?

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

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

24 A. This limitation 1C1 uses the term
25 retrieves and I don't see it using the term

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2 sorts.

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

5 A. This limitation 1C1 uses the word
6 "retrieves," I don't see it using the term
7 organizes.

8 Q. Let's move to claim element 1C2,
9 this limitation starts with outputs a list
10 identifying that other digital images
11 retrieved based on their related information,
12 and goes on and ends with: Other digital
13 images as the candidates by the user.

14 Do you see that?

15 A. I do.

16 Q. You agree this limitation requires
17 outputting a list identifying the other
18 digital images retrieved, correct?

19 A. That is part of this limitation
20 1C2.

21 Q. And the list must identify digital
22 images that were retrieved, correct?

23 A. It describes identifying the other
24 digital images retrieved based on their
25 related information and it goes on with

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2 additional requirements.

3 Q. And the purpose of the list is to
4 select another digital image to add in said
5 playlist, correct?

6 A. It doesn't use the word "purpose"
7 but it does describe that the list that is
8 output it goes on to describe it as to select
9 other digital image to add in said playlist.

10 Q. And the selection occurs when said
11 another digital image is selected from other
12 digital images as the candidates by the user,
13 correct?

14 A. You read that correctly.

15 Q. So a user is selected again looking
16 at this limitation a user is selecting from
17 the list of retrieved candidate images to add
18 to the playlist, correct?

19 A. The last part of this limitation
20 1C2 does describe that another digital image
21 is selected from other digital images as the
22 candidates by the user.

23 Q. Let's go to the next claim element
24 which is 1C3. It starts with outputs said
25 playlist including a plurality of said

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2 digital images added, all the way to said
3 playlist are outputted in a same display.

4 Do you see that?

5 A. I do.

6 Q. Do you agree this limitation
7 requires four things displayed on the same
8 display, correct?

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

10 Q. And these four things are one, the
11 plurality of digital images, two, the
12 plurality of related information; three, the
13 list identifying the other digital images,
14 and four the playlist, correct?

15 A. I think that's generally right.
16 There are some additional requirements, for
17 example you said the playlist but it refers
18 to said playlist but I agree that there are
19 four items and I think you at least
20 characterized them.

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

23 A. That's right.

24 Q. And moving to the last limitation
25 of this claim element 1C4, you agree that

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2 this limitation requires that in the list of
3 other digital images one image is positioned
4 next to another, correct?

5 A. It does describe outputting one of
6 the other digital images to be positioned
7 next to another one of the other digital
8 images.

9 Q. Dr. Bederson, let's go back to your
10 declaration, which is Exhibit 1003 for Ground
11 1 what reference or references are you
12 relying on?

13 A. I describe this in paragraph 93
14 where I explain that my opinion for regarding
15 Ground 1 is that various claims of the '198
16 patent are obvious by the reference Nagaoka
17 alone or just that one reference.

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

20 A. No what I said I was relying only
21 on a single reference which was Nagaoka my
22 opinion is that it's obvious so my opinion
23 also includes the knowledge of a POSITA,
24 which I described in various places, for
25 example in the technology background and

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2 state-of-the-art section in paragraphs 53
3 through 62 as well as some of the knowledge
4 that a POSITA would have based on the
5 description of my own qualifications in
6 paragraphs 4 through 21.

7 Q. Dr. Bederson, I'm going to put
8 Exhibit 1004 in the chat. Please let me know
9 once you've downloaded it?

10 (Exhibit 1004 was introduced.)

11 A. Okay.

12 Q. Do you recognize this document?

13 A. I do.

14 Q. Could you describe what it is?

15 A. This is US patent 7,822,233 that I
16 describe in my declaration as Nagaoka and
17 he's a prior art that I addressed in Ground 1
18 of my declaration.

19 Q. What does Nagaoka disclose?

20 A. It discloses many things and I
21 describe them in my declaration. I'm not
22 sure how to answer that more that question
23 more specifically without reading all of
24 Nagaoka.

25 Q. You agree that Nagaoka relates to a

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2 method and apparatus for organizing digital
3 media, particularly digital photos, using
4 face recognition, correct and just to clarify
5 I read that from the abstract directly?

6 A. So I do see in the abstract that it
7 does characterize Nagaoka does characterize
8 the present invention as being directed to a
9 method and apparatus for organizing digital
10 media, particularly digital photos using face
11 recognition so certainly includes digital
12 photos and it close digital media which is
13 broader than digital photos, such as video,
14 for example.

15 Q. What problem does Nagaoka seek to
16 solve?

17 A. Well I see that in column 1
18 starting at line 41 it describes itself by
19 saying that despite these existing products
20 and services the inventors of this
21 application have found has the need exists
22 for more advanced techniques and software
23 tools for conveniently and quickly organizing
24 digital photos.

25 Q. And how does Nagaoka go about

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2 describing this problem?

3 A. Well I describe that throughout my
4 declaration and I show how it does it in a
5 way that makes the '198 patent obvious, but I
6 will say that it includes the use of a
7 related information and face recognition for
8 recommending photos that can be added to a
9 playlist, for example and then it does that
10 in a process that allows a continuous
11 interaction with the user. So for example in
12 Figure 4 there's a flowchart where there is
13 the loop between steps S218 and S224 where
14 the face recognition can be applied over and
15 over again until a media organizing is
16 complete. That's step S224.

17 Q. You agree that Nagaoka is about
18 organizing digital photos, correct?

19 A. As I said Nagaoka discloses many
20 things. First of all it's not restricted to
21 digital photos, it is directed to digital
22 media, which includes digital photos as well
23 as other media such as video and one of the
24 things that it supports is organizing digital
25 media. I've also described it in some depth

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2 throughout my declaration.

3 Q. You agree that the primary
4 mechanism in Nagaoka and you just mentioned a
5 few moments ago about Figure 4, is for
6 organizing photos to face recognition,
7 correct?

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

19 Q. Nagaoka does not disclose a digital
20 video recorder, correct?

21 A. I disagree.

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

24 A. As we already discussed the
25 abstract explains that it is directed to

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2 organizing digital media, particularly
3 digital photos, thus it's quite clear that it
4 is not restricted to digital photos but it is
5 directed to the broader set of digital media
6 which includes video. So in figure one, for
7 example, where it describes item 20 imagine
8 input device, a person of skill reading this
9 would understand that it is not restricted to
10 still images but also digital media, which
11 includes video. That's also consistent with
12 the way a person of skill in the art would
13 understand the disclosure of digital cameras,
14 for example at column 1 line 21 since at the
15 time of this patent in about 2003, digital
16 cameras also typically supported digital
17 video.

18 Q. But my question is about whether
19 Nagaoka expressly discloses digital video
20 recording, yes or no?

21 A. My opinion as I already explained
22 is one of obviousness and in my opinion it is
23 obvious to a person of skill reading Nagaoka
24 that it discloses a digital video recorder.

25 Q. Dr. Bederson, I'm not asking about

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2 your obviousness analysis, I'm talking about
3 whether the reference expressly discloses the
4 digital video recorder?

5 MR. MIDDLETON: Objection. Form.

6 A. As I said I believe a person of
7 still in the art reading Nagaoka would
8 understand it to disclose digital video
9 recorder. But I agree it does not use a
10 specific term digital video recorder, at
11 least I don't see that.

12 Q. Does Nagaoka disclose recording
13 television programs?

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

24 Q. But my question is whether Nagaoka
25 expressly discloses recording television

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2 program, yes or no?

3 MR. MIDDLETON: Objection. Form.

4 A. So to be clear, my opinion about
5 Ground 1 is about whether a person of skill
6 would find various claims of the '198 patent
7 obvious in view of Nagaoka, which includes
8 how a person would understand Nagaoka's
9 disclosures as well as the knowledge of a
10 person of skill in the add would bring to
11 that reading for the reasons I've already
12 explained a person of skill in the art
13 reading Nagaoka -- sorry, would understand
14 Nagaoka to include the disclosure of
15 recording a television program for the
16 reasons that I explained. But I would agree
17 that at least sitting here today I don't see
18 it using the specific language recording
19 television program.

20 Q. Nagaoka does not disclose a
21 playlist for recorded television programs,
22 correct?

23 A. I disagree.

24 Q. Does Nagaoka expressly disclose a
25 playlist for recorded television programs in

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2 the spec?

3 MR. MIDDLETON: Objection. Form.

4 A. So again my opinion is not about
5 anticipation my opinion is that various
6 claims of the '198 patent are obvious in view
7 of Nagaoka alone and for reasons I just
8 explained along with the full analysis I
9 described in my report, my declaration, a
10 person of skill reading Nagaoka would
11 understand that it discloses a playlist of
12 television programs.

13 Q. But again and Dr. Bederson my
14 question is regarding the disclosure. Does
15 the Nagaoka disclosure expressly disclose a
16 program, a playlist for recorded television
17 programs?

18 A. So again.

19 MR. MIDDLETON: Objection. Form.

20 A. So again my opinion is about
21 obviousness and how a person of skill in the
22 art would read Nagaoka and for the reasons I
23 explained, a person of skill reading Nagaoka
24 would understand it to disclose a playlist of
25 recorded television programs. Sitting here

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2 today I do not see it specifically used the
3 language recording a playlist of television
4 programs.

5 Q. Nagaoka does not disclose a program
6 list as described in the '198 patent,
7 correct?

8 A. Well I know that the '198 patent
9 uses the term program list in Claim 6 and I
10 analyzed how Claim 6 is obvious in view of
11 Nagaoka in my declaration and so for the
12 reasons that I explained in my declaration
13 and as I described sitting here today a
14 person of skill in the art reading Nagaoka
15 would understand that it does describe the
16 claimed program list of the '198 patent.

17 Q. Does Nagaoka expressly disclose a
18 program list of recorded television programs,
19 yes or no?

20 MR. MIDDLETON: Objection. Form.

21 A. So to be clear the '198 patent does
22 not claim recorded television programs, and
23 so in response to this question about program
24 list there's nothing here that describes a
25 program list as requiring television programs

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2 that also applies to several of my previous
3 answers. I was explaining what Nagaoka
4 discloses but there's nothing in any of the
5 claims that describe or require a television
6 program to be recorded. And for the reasons
7 that I've already explained, a person of
8 skill in the art reading Nagaoka would
9 understand that it does disclose both the
10 claimed program list as well as the recording
11 of television programs, and that those
12 television programs can be stored in a
13 playlist.

14 Q. Does Nagaoka disclose a dubbing
15 list?

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

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2 in my opinion is not required by claim 13. I
3 did go on to explain in this section of my
4 report, which is part of Ground 3 that the
5 combination of Nagaoka and another reference
6 called Nara does disclose the actual dubbing
7 should that be required by this claim. I'll
8 also note I think we've been going for an
9 hour so when you're ready for a break I'd
10 like to take one.

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

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

14 (Off the record from 10:02 a.m. to
15 10:13 a.m.)

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

18 BY MR. JAVED:

19 Q. Dr. Bederson, let's go to paragraph
20 93 of your declaration?

21 A. Okay.

22 Q. The first sentence of this
23 paragraph you state that a POSITA would have
24 been motivated to combine embodiments within
25 Nagaoka. You see that?

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2 A. I do.

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

6 A. So to be clear I ascribed Nagaoka's
7 embodiments because Nagaoka describes itself
8 by using the term embodiments but a person of
9 skill in the art reading Nagaoka would
10 understand that what it describes as
11 embodiments really are characteristics of a
12 single system so when I describe a POSITA
13 would've been motivated to combine
14 embodiments with Nagaoka.

15 I'm describing using the various
16 characteristic of Nagaoka. I don't believe
17 there are any separate systems or as I
18 explained herein compatible components or
19 characteristics. So I am combining all of
20 the disclosures of Nagaoka.

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

25 A. I described media organizing and

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

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

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

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

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

25 Q. And does Nagaoka's media organizing

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2 and processing unit 30 reproduce digital
3 images?

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

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

15 A. So it does and I explained this in
16 this section of my declaration for
17 additionally, for example, at column 3
18 starting at line 45 describing Figure 2 which
19 I cite to for this limitation in paragraph 96
20 Nagaoka says again this is column 3 starting
21 at line 45 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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2 digital images. Sorry recording digital
3 images within the media organizing and
4 processing unit 30. And as I already
5 mentioned image input device 20 also is
6 described as recording digital images.

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

10 MR. MIDDLETON: Objection. Form.

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

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

24 MR. MIDDLETON: Objection. Form.

25 A. So the answer is yes. Looking

1 B. Bederson - Rough Draft
2 closely at the Claim 1 preamble it describes
3 a digital image recording and reproducing
4 apparatus connecting to a display model. So
5 clearly reproducing of the Claim 1 preamble
6 is not itself the display because that was
7 connected to a display and Nagaoka's media
8 organizing and processing unit does reproduce
9 digital images and it is connected to a
10 display module display 60 in just the same
11 way that was claimed in the preamble.

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

16 A. Sure. So for example in column 3
17 starting at line 32 it says a user views
18 graphical user interface GUI display screens
19 and other information including photos output
20 by the media organizing and processing unit
21 30 on a display 60.

22 So that describes the media
23 organizing and processing unit as outputting
24 the photos or reproducing them connected to a
25 display, unit 60, or displaying them as the

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2 claim's display module requires. Furthermore
3 as I said multiple times, my opinion about
4 the Claim 1 preamble is not limited to the
5 media organizing and processing sorry media
6 organizing and processing unit 30. I
7 describe that as an example and in paragraphs
8 96 through 98 I explain my full opinion
9 regarding Figure 2 and a full disclosures in
10 Nagaoka that describe Figure 2.

11 Q. Let's go to paragraph 99.

12 A. Okay.

13 Q. In this paragraph you point to
14 Nagaoka's media organizing scroll unit 38 as
15 the output module, correct?

16 A. While reading paragraphs 99 and 100
17 I clearly point to both the media organizing
18 control unit 38 as well as the display module
19 60 and they work together to output the
20 digital images and display them.

21 Q. You also point to Nagaoka's Figure
22 3 and Figure 6 for the display of digital
23 images and related information, correct?

24 A. Yes, that's right.

25 Q. And in your declaration you

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2 identify related information in Nagaoka as
3 including further names, dates, even places,
4 people and facial recognition data, correct?

5 A. Yes, that's right I describe that
6 for example in paragraphs 101 through 104 and
7 105, and 106.

8 Q. And you also say the similarity
9 mega data, for example, similar to Momoko in
10 Figure 6 constitutes related information
11 correct?

12 A. Yes, I think that's right I
13 describe that in part in paragraph 105.

14 Q. Let's turn to paragraph 109 through
15 111 of your declaration. Here in these
16 paragraphs you offer two examples of why
17 Nagaoka allegedly discloses limitation 1B,
18 correct?

19 A. That's right.

20 Q. In your first example in paragraph
21 109 is that the user may select dates from
22 the category list 102 to organize and/or
23 browse digital photos organized by date?

24 A. That's part of what I said in
25 paragraph 109.

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2 Q. And you quoted that language from
3 Nagaoka, correct?

4 A. That's right.

5 Q. And the language which I just cited
6 includes the user may select, correct?

7 A. That's right and I go on to explain
8 that when the user select the dates item in
9 Nagaoka the Nagaoka has a control module
10 which then displays -- selects and displays
11 digital images to add to a playlist and are
12 displayed in response to that selection. So
13 first the user selects and then there is a
14 control module of Nagaoka which selects
15 digital images to be displayed on the right
16 side of the display.

17 Q. But the language which you quoted
18 from Nagaoka I think it's from column 4 lines
19 3 to 5, it does not say the control module
20 selects, does it?

21 A. Well control module is claim
22 language from the '198 patent. I explained
23 how a person reading Nagaoka would understand
24 its disclosures to disclose a control module
25 and I explained that, which is that the

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2 software of Nagaoka that is it's part of its
3 control module selects digital images to add
4 to a playlist and that occurs in response to
5 a user action which is selecting a date.

6 Q. Again, my question is the
7 disclosures you have put in this paragraph
8 109 from Nagaoka which says that the user may
9 select dates from the category list 102 to
10 organize and/or browse digital photos
11 organized by date. Looking at this
12 disclosure from Nagaoka, is there any word
13 here -- does the phrase the control module
14 selects included in this disclosure from
15 Nagaoka?

16 MR. MIDDLETON: Objection. Form.

17 A. I've already explained that the
18 term control module is a 198 claim term, my
19 analysis is whether Nagaoka discloses that
20 and whether it would be obvious to a person
21 of skill in the art reading Nagaoka whether
22 that control module is disclosed and it is
23 for the reasons that I described. For
24 example, I explain my analysis in the
25 following sentence of paragraph 109 where I

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2 say that Nagaoka thus discloses that the
3 media organizing and control unit 38 selects
4 digital images to add to a playlist based on
5 the date the photo was taken such that the
6 digital images are organized by date.

7 So as an example, Nagaoka's media
8 organizing and control unit 38 meets the
9 control module requirement of 198 limitation
10 1B.

11 Q. But in column 4 line 3 to 5 does
12 not Nagaoka expressly state that the media
13 organizing and control unit select dates from
14 the category list 102 to organize and/or
15 browse digital photos organized by date?

16 MR. MIDDLETON: Objection. Form.

17 A. I've explained my opinion. I think
18 you're saying is part of my opinion that part
19 of Nagaoka includes a user selection of date
20 and the answer to that is yes, is that my
21 entire opinion, no. My entire opinion is in
22 this section of my report in paragraphs 109
23 through 111 and as I explained and
24 furthermore my opinion, as I've said, is one
25 of obviousness and I explain how a person of

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2 skill would understand Nagaoka's disclosure.

3 Q. And in this example a user is
4 selecting a category dates from a category
5 list, correct?

6 A. That's part of Nagaoka's
7 disclosure, which I describe.

8 Q. Category is not same as digital
9 image, correct?

10 A. To be clear, I'm not relying on the
11 user selecting the date to meet a control
12 module which selects a digital image but I
13 would agree that a category list is probably
14 not itself a digital image, it's a category
15 list which can contain digital images, or
16 which is information related to digital
17 images.

18 Q. You will agree that the claim
19 requires the control module to select a
20 digital image to add in a playlist, correct?

21 A. That is part of what limitation 1B
22 says.

23 Q. And selecting a category from a
24 category list is not the same as selecting a
25 digital image to add in a playlist, is it?

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2 A. To be clear, I am not pointing to
3 Nagaoka's disclosure of selecting a date from
4 a category list to meet the claim requirement
5 of selecting a digital image. I am pointing
6 to Nagaoka's selecting of digital images by
7 the media organizing from control unit 38
8 which selects digital images to be displayed
9 and that can be added to a playlist in
10 response to the user selecting a date.

11 Q. And in the same paragraph the last
12 sentence you state that a POSITA would have
13 further found it obvious to organize digital
14 images based on underlying metadata including
15 the date the photo was taken.

16 Do you see that?

17 A. I do.

18 Q. That is an obviousness organize the
19 not a disclosure argument, correct?

20 A. Well first of all, in my opinion
21 Nagaoka does disclose organizing digital
22 images based on underlying metadata such as
23 date. I am further offering an opinion that
24 it would have been obvious to do so and there
25 are multiple reasons for that, including the

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2 fact that I showed multiple disclosures in
3 the background section of my report starting
4 at paragraph 53 where I showed examples of
5 digital photos that are organized by metadata
6 such as date, including in my own work with
7 the Photomesa system that I described in my
8 qualification section starting at paragraph
9 four and in particular in paragraphs 14 and
10 15.

11 Q. I didn't understand that part. So
12 you are pointing to paragraph 53 to show
13 Nagaoka discloses?

14 A. No, we were talking about the
15 sentence where I said a POSITA would have
16 found it obvious to organize digital images
17 based on underlying metadata including the
18 date the photo was taken. And I explained
19 two things first that Nagaoka itself
20 organizes digital images based on underlying
21 metadata including the date the photo was
22 taken, and I explain that in various places
23 in my declaration and it is illustrated, for
24 example, in Figure 3 of Nagaoka which at item
25 102 shows dates that can be inter acted with

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2 to show photos within that date. And I've
3 also explained how Nagaoka organizes digital
4 photos based on other metadata such as
5 events, people, places and face recognition
6 data. When I was referring to the background
7 section starting at paragraph 53 and my
8 qualification section starting at paragraph
9 four, I was explaining that that is knowledge
10 that a POSITA would have that makes it very
11 clear that a POSITA would understand that
12 organizing digital images based on underlying
13 metadata including the date the photo was
14 taken was well known.

15 Q. Do you agree that Nagaoka does not
16 expressly disclose a control module that
17 selects a digital image to add in a playlist
18 based on dates, correct?

19 MR. MIDDLETON: Objection. Form.

20 A. So to be clear, my opinion is not
21 one of anticipation and I did not perform an
22 anticipation analysis. I performed an
23 obviousness analysis and in this case we're
24 talking in Ground 1 about the single
25 reference analysis of how a person of skill

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2 in the art would understand the disclosures
3 of Nagaoka as well as how they would
4 understand Nagaoka in light of their
5 knowledge. And I explained my opinion about
6 that and we've discussed it how my opinion
7 describes that in this section of my
8 declaration. Furthermore, I think that
9 Nagaoka does disclose a control module which
10 selects a digital image to add in a playlist
11 for the reasons that I explained. But I
12 agree it does not use the precise claim
13 language that is part of the '198 claim
14 limitation 1B.

15 Q. Second example in paragraph 110
16 involves Nagaoka's facial recognition
17 software, correct?

18 A. I'm sorry, I didn't understand the
19 question, can you repeat it?

20 Q. Yeah.

21 Your second example in paragraph
22 110 involves Nagaoka's facial recognition
23 software, correct?

24 A. Yes, it does.

25 Q. In the first sentence you say that

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2 additionally a user may select a photo by
3 dragging and dropping it into a personal
4 folder, you see that?

5 A. I do.

6 Q. Let's go to Nagaoka column 5 lines
7 18 through 29. So here in this passage
8 Nagaoka describes the user dragging and
9 dropping faces from the unknown display
10 window portion 406, correct?

11 A. That's right.

12 Q. The user is the one performing the
13 drag and drop action, correct?

14 A. That's right and then Nagaoka
15 responds to that drag and drop interaction by
16 performing the facial recognition function to
17 update the selected list of displayed images
18 in 406. I mentioned that earlier but that is
19 described, correct in Figure 4 that describes
20 step S218 which describes applying face
21 recognition to determine similarity of
22 unknown faces and then to continue down to
23 step S224 which then loops back to S218. So
24 this continues to occur in response to user
25 interaction with the system and that's

1 B. Bederson - Rough Draft
2 further described later on in column 5
3 starting well a full paragraph line 30
4 through column 6 line five but in particular
5 it describes starting at line 52 if after the
6 user has dragged and dropped an unknown face
7 into the model displays window portion 408
8 there are additional unknown faces S224, the
9 face recognition algorithm is repeated S218.

10 So as I said, the user does perform
11 a drag and drop operation and then the system
12 responds by performing facial recognition and
13 updating the list of selected digital images
14 if 406.

15 Q. Let me go back to the same
16 paragraph which we were discussing it says
17 that after the user drags and drops the face
18 recognition unit 36 applies face recognition
19 to determine similarity of unknown faces to
20 the selected model.

21 You see that and this is I think
22 line 28 starting from line 28 ending 29?

23 A. Yes, I see that.

24 Q. So Nagaoka says determine
25 similarity, correct?

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2 A. It does use that phrase here.

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

5 A. If you're asking if Nagaoka uses
6 the 198 claim language, no it does not.
7 Nagaoka describes a process that I explained
8 what it does and how a person of skill would
9 understand it. And a person of skill would
10 understand that it does disclose this
11 required claim limitation 1B where there is a
12 control module which selects a digital image
13 to add in a playlist. The control module is
14 the software of Nagaoka, I explained which
15 components that consists of and in response
16 to a user performing a drag and drop
17 operation, Nagaoka performs facial
18 recognition function which results in
19 selecting digital images that are added to
20 406 which can then be later added to the
21 playlist 408.

22 Q. The media organizing control unit
23 38 sorts the unknown faces by similarity
24 measure most similar to least similar,
25 correct?

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2 A. Sorry, are you reading something
3 from Nagaoka.

4 Q. Yeah. This is again column 5 line
5 43 to 49 says sorts the unknown faces by
6 similarity measure most similar to least
7 similar.

8 You see that?

9 A. Yes, I do see that.

10 Q. So the media organizing control
11 unit here, it sorts it does not select,
12 correct?

13 A. I disagree. You're reading a
14 portion of one sentence. I've explained the
15 overall disclosure of how Nagaoka works. As
16 part of the facial recognition process it
17 does select images and add them to 406 and it
18 adds them in a sorted ordered based on the
19 similarity measure.

20 Q. Can you point me to any passage in
21 Nagaoka where Nagaoka uses the word "select"
22 in connection with the function performed by
23 the media organizing control unit?

24 MR. MIDDLETON: Objection. Form.

25 A. I didn't analyze Nagaoka to see if

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2 it repeat the 198 claim language. I
3 performed an obviousness analysis to show
4 whether a person of skill in the art reading
5 Nagaoka would understand its disclosure to
6 disclose the requirements of the '198 patent
7 and the answer is for all the reasons I
8 explained that it does, but I don't have an
9 opinion sitting here today as to whether it
10 uses the specific word "select" in this
11 analysis, sorry in this section of Nagaoka.

12 Q. But you agree that Nagaoka uses the
13 word "sort" when it discloses the function
14 performed by media organizing control unit
15 38, correct?

16 MR. MIDDLETON: Objection. Form.

17 A. So for all the reasons I explained
18 Nagaoka clearly discloses selecting a digital
19 image to add in a playlist and meeting the
20 requirements of claim limitation 1B but I do
21 agree that there is a portion of a sentence
22 that column 5 line 45 in Nagaoka that uses
23 the word "sorts."

24 Q. And you agree that Nagaoka uses the
25 term select only in association with a user,

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2 correct?

3 MR. MIDDLETON: Objection. Form.

4 A. Again my analysis was not whether
5 Nagaoka uses the same claim language as the
6 '198 patent, which is not required for an
7 obvious analysis, in fact I don't think that
8 would even be required for an anticipation
9 analysis but I did show and explain how a
10 person of skill in the art reading Nagaoka
11 would understand that its disclosure clearly
12 discloses a control module which selects a
13 digital man to add in a playlist.

14 Q. Looking at column 3 line 67 Nagaoka
15 discloses that accordingly the user may
16 select from this category list 102.

17 Do you see that?

18 A. I do.

19 Q. Now looking at column 4 line three
20 Nagaoka for example the user may select dates
21 from the category list 102.

22 Do you see that?

23 A. I do.

24 Q. And now looking at again column 4
25 line eight it says that furthermore in

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2 accordance with principles of present
3 invention, the user may select people to
4 organize digital photos based on the facing
5 appearing therein.

6 Do you see that?

7 A. I do see that. I also see
8 disclosures in Nagaoka that describe all the
9 things that I explained that it describes. I
10 also note sitting here today at column 2
11 starting at line 61 it says that the present
12 invention may be implemented to allow a user
13 to set up folders for different people, find
14 similar faces to a face or faces in these
15 folders and add photographs to the people
16 folders based on detected similarity.

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

22 Q. Is it your opinion the word add and
23 select mean the same thing?

24 A. It is my opinion that a person of
25 skill in the art reading Nagaoka would

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2 understand for all the reasons that I
3 explained, including this disclosure of
4 adding photos that it teaches selecting a
5 control module which selects a digital image
6 to add in a playlist.

7 Q. But again going back to column 2
8 lines I think 61 which you just pointed out,
9 here it says the present invention may be
10 implemented to allow a user to set up folders
11 for different people, find similar faces to a
12 face or faces in these folders and add
13 photographs to the people folders based on
14 detected similarity.

15 I don't see any selection by a
16 control module here?

17 MR. MIDDLETON: Objection. Form
18 counsel is that a question?

19 MR. JAVED: Yes.

20 MR. MIDDLETON: Can you please
21 rephrase that question?

22 Q. So Dr. Bederson, you just pointed
23 to column 2 and looking at column 2 from
24 lines 61 all the way to line 65 I don't see
25 the control module selecting a digital image

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2 as required by claim element 1B; do you
3 agree?

4 A. I don't have an opinion about what
5 you see.

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

12 MR. MIDDLETON: Objection. Form.

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

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2 photo faces displayed in Box 406 of Figure 6
3 and that adding of those photos meets the
4 claim requirement of a control module which
5 selects a digital image to add in a playlist
6 based on one of the plurality of information
7 concerning the digital image recorded in said
8 recording media.

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

15 Do you see that?

16 A. I do.

17 Q. And again same column line 62 it
18 states if a user decides not to detect faces
19 at the time of importing the photos, the user
20 can select a detect faces menu option not
21 shown at any time.

22 Do you see that?

23 A. I do.

24 Q. And then at column 5 line one it
25 says: After face detection and cropping has

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

7 Do you see that?

8 A. I do.

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

13 MR. MIDDLETON: Objection. Form.

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

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

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2 MR. MIDDLETON: Objection. Form.

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

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

11 A. I do.

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

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

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

22 A. Sounds like you're reading from
23 someplace in Nagaoka is that right.

24 Q. Yes, this is column 5 from lines 22
25 onwards?

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2 A. I don't see where it is describing
3 408 in the way that you just was asking
4 about.

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

10 MR. MIDDLETON: Objection. Form.

11 A. I disagree.

12 Q. Could you explain why you disagree?

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

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2 would understand Nagaoka's disclosures.

3 Q. Nagaoka never uses the word
4 playlist anywhere in its specification, does
5 it?

6 A. I don't recall it doing so. I will
7 say that I go on to explain toward the end of
8 paragraph 111 that I also have a specific
9 obviousness argument that it would be obvious
10 to modify Nagaoka's disclosure in Figure 6 of
11 a display window portion 408 to show digital
12 images in a playlist since such playlists
13 were well known in the art if it were found
14 that 408 itself was not a disclosure of a
15 playlist and that is based both on Nagaoka's
16 own disclosure of playlists such as a slide
17 presentation, as well as a background of the
18 technology section that I included starting
19 in paragraph 53 and my own qualifications
20 starting at paragraph four.

21 Q. So a person folder in Nagaoka is
22 used to organize photos by person for face
23 recognition purposes, correct?

24 A. I didn't understand your question,
25 could you repeat it please.

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2 Q. So a person folder in Nagaoka is
3 used to organize photos by person for face
4 recognition purposes, correct?

5 A. Are you reading something specific
6 from Nagaoka or just asking me general
7 understanding of Nagaoka.

8 Q. General understanding of Nagaoka,
9 as you were discussing in Figure 6 and, you
10 know, window portion 408?

11 A. Well your question talked about a
12 folder I think person folders, so that also
13 includes 402 and so my answer to your
14 question is I think that person folders can
15 be used in support of facial recognition but
16 that's not the only purpose and only
17 disclosure of Nagaoka.

18 I also note I think we've been
19 going another hour, so I'd like to take a
20 break when you're at a good stopping point.

21 Q. Just give me one second.

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

23 THE COURT REPORTER: We're off the
24 record.

25 (Off the record from 11:17 a.m. to

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2 11:29 a.m.)

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

5 BY MR. JAVED:

6 Q. Dr. Bederson, let's move to the
7 next limitation 1C1 which is in paragraph I
8 think 112 to 114. So here in paragraph 113
9 you state that the media organizing control
10 unit 38 and/or Nagaoka's facial recognition
11 software (the claimed control module)
12 retrieves other digital images whose related
13 information is the same as a selected digital
14 image.

15 Do you see that?

16 A. I do.

17 Q. You're pointing to Nagaoka's Figure
18 6 and display window portion 406 for this
19 limitation, correct?

20 A. So I describe Figure 6 and the
21 display element 406 as an example of how
22 Nagaoka retrieves other digital images whose
23 related information is the same as the
24 selected digital image. And to be clear,
25 that's for the first example in paragraph 113

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2 and I give another example in paragraph 114.

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

10 Do you see that?

11 A. I have, I do.

12 Q. And do you agree that these unknown
13 faces are detected and cropped from all
14 digital photos, correct?

15 MR. MIDDLETON: Objection. Form.

16 A. Sorry, can you repeat the question
17 please?

18 Q. Yes, one second.

19 So you agree that these unknown
20 faces are detected from all digital photos,
21 correct?

22 MR. MIDDLETON: Objection. Form.

23 Q. Just to clarify let me rephrase the
24 question.

25 These unknown faces detected from

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2 all imported digital photos, correct?

3 MR. MIDDLETON: Objection. Form.

4 A. I disagree.

5 Q. Could you go to column 4 lines 40
6 to 49 and after reading that do you agree
7 that what I just asked that unknown faces are
8 all detected from all imported digital
9 photos?

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

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

21 A. Well we know that's not true from
22 the from Figure 5 and the description that we
23 read earlier at Figure 5 where there is an
24 option for user to control whether imported
25 photos have faces detected or not and events

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2 detected or not. So for example in Figure 5
3 user interface element 306 has a checked box
4 called automatically detect faces that can be
5 turned on or off. And sorry that's further
6 described in column 4 at lines 55 through 66.

7 Q. So once a user selects a person
8 folder and the face recognition algorithm is
9 applied, what happens to the images in
10 display windows portion 406?

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

20 Q. So is it correct to say that the
21 images are sorted by similarity measure from
22 most similar to least similar, is that
23 correct?

24 A. I think generally that's right the
25 selected images in 406 are sorted from most

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2 similar to least similar based on a selected
3 person. So in Figure 6 Box 408 has person
4 Momoko selected by the user with the result
5 being that user 406 shows selected images
6 sorted as they relate to Momoko.

7 Q. But the same set of unknown faces
8 remains in display window portion 406
9 correct. The set does not change correct?

10 A. No, that's not right. It changing
11 for example if you drag a face from 406 onto
12 Momoko then that identifies that person as
13 being associated with Momoko so that so that
14 person would be removed from 406 and thus the
15 selected photos in 406 would be updated and
16 resorted.

17 Q. Dr. Bederson, after the face
18 recognition algorithm is applied and the
19 sorting occurs, are any images added to
20 display window portion 406 that were not
21 already there?

22 A. The selected images would be
23 changed it initially had one set of images
24 and then after the drag and drop it to would
25 have a different set of images for example it

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2 would not include the man that was drag and
3 dropped onto another person's folder, or any
4 person's folder.

5 Q. I'm talking about the same person
6 folder and the sorting algorithm has occurred
7 at that point are any or have any images or
8 new images added to display window portion
9 406?

10 MR. MIDDLETON: Objection. Form.

11 A. I don't think I understand your
12 question. Sometimes images are added and
13 sometimes they are removed. So the selected
14 images in 406 change. Images can be added at
15 least when a person imports new images and
16 images can be removed when a person drag and
17 drops an image from 406 onto a person's
18 folder.

19 Q. Apart from adding and removing, I'm
20 talking about the sorting functionality the
21 sorting algorithm, what happens once the
22 sorting is complete how are images displayed
23 in window portion 406?

24 MR. MIDDLETON: Objection. Form.

25 A. Well as we can see in Figure 6

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2 after a user has selected a the user can do a
3 number of things. The system does a number
4 of things including performing facial
5 recognition, be selecting photos to be
6 displayed, sorting them and then it displays
7 them. While it's being displayed I don't
8 think they're jumping around, there's a point
9 at which they're stable until the next user
10 interaction.

11 Q. And as you mentioned while the user
12 is interacting and sorting these images
13 during the sorting process are any new images
14 added to the window portion photo six?

15 A. They may be. So as I said, I think
16 the -- which images are selected for display
17 in 406 changes, the images can be the number
18 of images can be decreased if for example a
19 person has dragged an image onto a person
20 photo or if an image has been imported there
21 could be added, or if there had been
22 previously -- there had been images that had
23 been imported without recognizing and then an
24 action was performed to request the system to
25 recognize all the images, then the number of

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2 images in 406 would be increased. So there
3 are multiple ways of the number of images in
4 406 can be increased or decreased.

5 Q. Let's try to simplify that. Are
6 any images added from display window portion,
7 well added to window display portion 406 as a
8 result of the sorting function?

9 MR. MIDDLETON: Objection. Form.

10 A. I think I've explained my analysis
11 of how a person of skill in the art would
12 understand Nagaoka, which includes multiple
13 parts of the disclosure of Nagaoka including
14 its response to different user interactions
15 such as a drag and drop, and one of the parts
16 of the Nagaoka system is that it sorts the
17 images in 406 but I am relying on much more
18 than that. I am relying on the full
19 disclosure of Nagaoka but in answer to your
20 question, I don't know that the sorting step
21 itself changes which images are displayed in
22 406 but the system as a whole does and for
23 all the reasons that I've explained.

24 Q. And are any images removed from
25 display window portion 406 as a result of the

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2 sorting function?

3 A. So again I'm looking at how a
4 person of skill would understand the
5 disclosures of Nagaoka. When a person drag
6 and drags and drop a photo from 406 onto a
7 person folder, then there are a number of
8 steps that occur in Nagaoka, including
9 associating that photo that was just dragged
10 with a person performing new facial
11 recognition and resorting the overall result
12 of that would be there would be a change in
13 the number of selected photos in 406.
14 Nagaoka doesn't specifically say which of
15 those steps or which or those of parts of
16 that process result in the number of images
17 being decreased so it could be part of the
18 sorting steps or could be part of one of the
19 other steps.

20 Q. Is it correct to say the sorting
21 sorting of images simply changes the order of
22 images in display windows portion 406 but the
23 images themselves remain the same, correct?

24 A. No that's not what I said and I
25 don't think that's correct. As I said,

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

19 Q. So just to confirm and clarify,
20 Nagaoka does not explicitly state that during
21 sorting step which you just mention images
22 are added or removed, correct?

23 A. As I said, Nagaoka describes quite
24 clearly how the system as a whole works and
25 it describes that there are multiple steps

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2 which include a sorting step, it does not say
3 in detail at exactly which one of those steps
4 an image might be removed from 406 as a
5 result of a drag and drop so it does not say
6 whether it is part of the sorting step or
7 part of another step.

8 Q. Can you point me to any passage in
9 Nagaoka that describes images being added or
10 removed from display window portion 406 as a
11 result of face recognition algorithm?

12 A. Sure. We already talked about how
13 at column 5 line 22 that the user may drag
14 and drop any of the faces from an unknown
15 display window portion 406 i.e. displays
16 digital photos that have not been associated
17 with a particular person folder so that
18 describes 406 not having images not
19 associated with a particular person folder.
20 But then when we go on to looking at
21 Nagaoka's disclosure of the drag and drop
22 feature in more detail, which is at column 5
23 starting at line 49, using this updated
24 display 400 the user is able to drag and drop
25 one or more of the sorted unknown faces from

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2 the unknown display window portion 406 into a
3 model display portion window 408. So that
4 shows that you are then associating a photo
5 with a face image and so it is no longer
6 unknown. So those two disclosures together
7 teach to a person reading Nagaoka that 406
8 would result in no longer displaying that
9 photo that you just dragged and dropped
10 because it is no longer an unknown a photo
11 not associated with a face.

12 And as I said, it doesn't
13 specifically say whether that removal from
14 406 sorry doesn't specifically say which step
15 removes the photo from 406, whether it is
16 removed for example as part of a sorting step
17 or part of one of these other steps.

18 Q. Looking at limitation 1C1 says the
19 control module retrieves other digital images
20 whose related information is the same as the
21 selected digital image.

22 Do you see that?

23 A. I do.

24 Q. You agree that retrieve requires
25 extracting a subset of images from a larger

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2 set, correct?

3 A. No, I disagree. This retrieves
4 only requires digital images whose related
5 information is the same as the selected
6 digital image. If all of the images have
7 related information of the same as the
8 selected digital image then it would retrieve
9 all images. And to be clear that's Nagaoka
10 retrieves digital images based on similarity
11 to the face recognition information of the
12 selected person folder.

13 Q. Does Nagaoka ever use the word
14 retrieve in his specification?

15 A. I don't know, I would have to
16 check.

17 Q. Could you tell me where Nagaoka
18 does this retrieve function as stated in
19 limitation 1C1?

20 A. So we have been talking about this
21 in regarding the facial recognition feature
22 in paragraph 113 and I explain how it
23 retrieves the unknown faces and selects them
24 for display in 406 and sorts them based on a
25 similarity measure, in this example in Figure

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2 6 being similar to Momoko.

3 Q. But Nagaoka does not use the word
4 retrieve anywhere in his disclosure, correct?

5 A. As I said, I don't recall
6 specifically checking to see if Nagaoka ever
7 uses the word retrieve.

8 Q. And as you just mentioned earlier
9 Nagaoka describes the operation of sorting or
10 organizing digital images, correct?

11 MR. MIDDLETON: Objection. Form.

12 A. So as I explained in paragraph 113,
13 Nagaoka meets the requirements of claim
14 limitation 1C1 because it does retrieve
15 images, other digital images whose related is
16 the same as the selected digital image and in
17 particular it retrieves those images for a
18 display based on them being similar to
19 Momoko.

20 If we look at Figure 6 we can see
21 this retrieval step in part through these two
22 buttons on the bottom. There are two
23 options. One to show all photos and the
24 other option is to show other people that in
25 this case are similar to Momoko.

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2 So it very clearly has an option to
3 either display all photos or to only show
4 photos that are similar to Momoko.

5 Q. Looking at paragraph 113 where you
6 have discussed Figure 6 and then you point to
7 Nagaoka's disclosure I think this is column 5
8 lines 25 to 29 and I'm just going to read
9 from Nagaoka's disclosure which you have
10 cited in your report column 5 line 25: Once
11 the user has selected the person folder for
12 matching with unknown faces which serve as
13 comparison model the face recognition unit 36
14 applies face recognition to determine
15 similarity of unknown faces to the selected
16 model.

17 Now based on what you have cited
18 could you tell me how this passage relates to
19 retrieval -- the control module retrieves
20 other digital images whose regular
21 information is the same as a selected digital
22 image as required by the claim element?

23 A. Sure, it does so in multiple ways.
24 I cite to that section I also cite to Figure
25 6 and as I just explained Figure 6 has two

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2 bottoms at the bottom. One button is to show
3 all notes and the other button is to show
4 other people similar to Momoko and that is a
5 disclosure of retrieving images, other
6 digital images whose related information is
7 the same as the selected digital image. So
8 that's at least one example.

9 Additionally, even based on the
10 textual description in column 5 that you just
11 read if it displays all unknown photos it
12 also displays them as being similar to Momoko
13 and so that is a retrieval based on the
14 related information being the same as the
15 selected digital image because they all have
16 some similarity and they are displayed based
17 on that similarity. So there's two
18 disclosures that I pointed to in paragraph
19 113.

20 Q. Let's first look into this
21 disclosure which you pointed in column 5
22 because here first of all I just see the user
23 selecting a folder, I don't see the control
24 module doing any retrieval. Again missing
25 something, can you point to where exactly in

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2 this disclosure from column 5 line 25 to 29
3 which you have cited in your report the
4 control module is doing the retrieval
5 function.

6 A. Well again, I've cited to multiple
7 sections of Nagaoka here and I have explained
8 how let see when we look slightly higher in
9 column 5 just the previous sentence or two
10 that when the user dragged and drops, it
11 displays faces that are unknown in 406. And
12 so that is a disclosure to a person of still
13 reading Nagaoka that it retrieves unknown
14 faces and disc mace it in 406. So that is
15 one disclosure. And as I said the button at
16 the bottom of 406 labeled show other people
17 and similar to Momoko is a second disclosure.

18 Q. Looking at this additional line
19 which you just mentioned couple lines above
20 again in column 5 I think you mentioned this
21 is line 22 probably. Here again it says the
22 user may drag and drop. I don't see any
23 control unit or control module retrieving
24 other digital images, correct?

25 A. I disagree the user may drag and

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2 drop any of the faces from an unknown window
3 display portion 406 i.e. displaying faces
4 from imported digital photos that have not
5 been associated with a particular person
6 folder.

7 A person of skill reading this
8 would unequivocally understand that 406 needs
9 to retrieve the unknown photos to display
10 them in 406 otherwise that could never occur.
11 So again, that is one disclosure.

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

25 Q. So just to be clear your analyze

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2 about this limitation is not what exactly or
3 explicitly disposed in Nagaoka but obvious
4 analysis based on POSITA you can correct?

5 A. So to clarify, I do not have an
6 opinion about anticipation. My opinion is
7 about obviousness and that includes how a
8 person of skill in the art would understand
9 the disclosures of Nagaoka and that's what
10 I've been explaining.

11 Q. When we look at paragraph 115 this
12 is for limitation 1C2, here the claim
13 requires that the list is output to select
14 another digital image to add in said playlist
15 when said another digital image is selected
16 from other digital images as the candidates
17 by the user.

18 You see that?

19 A. I do.

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

23 A. I think at a high level that's
24 right. This requires a list that a user can
25 select from to add to a playlist.

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2 Q. We've been talking earlier about,
3 you know, the display window portion 408 so
4 in Nagaoka when a user drags and drops an
5 unknown face into the model display window
6 portion 408, that is for the purpose of face
7 recognition and not for the purpose of adding
8 images to a playlist, correct?

9 MR. MIDDLETON: Objection. Form.

10 A. I'm not sure what you mean by for
11 the purpose of. I think it can do multiple
12 things. I think it dragging an image into
13 408 does perform facial recognition and it
14 also drags it into a playlist.

15 Q. Does the?

16 A. Sorry just to continue. And as I
17 explained earlier I also have a specific
18 obviousness opinion that a 408 is determined
19 to not be a playlist it would be obvious to
20 modify 408 so it could be a playlist.

21 Q. Dr. Bederson you already answered
22 my follow-up question. So moving to Claim 6
23 you have provided your opinions regarding
24 this claim starting from paragraph 123 all
25 the way through 130.

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2 Do you see that?

3 A. I do.

4 Q. And you agree that a claim of is
5 meta claim whereas claim 1 is an apparatus
6 claim, correct?

7 (Court Reporter clarification.)

8 Q. You agree that Claim 6 is a meta
9 claim whereas Claim 1 is an apparatus claim,
10 correct?

11 A. Yes, that's right.

12 Q. And for each limitation of Claim 6
13 your declaration simply states see limitation
14 for example 1A and C limitation of 1B et
15 cetera, correct?

16 A. I would agree that for my analysis
17 of Claim 6 relies on Claim 1 and I refer to
18 different limitations of Claim 1 for each
19 limitation of Claim 6.

20 Q. So just to be clear you do not
21 provide any separate analysis for the Claim 6
22 limitations, correct?

23 A. I don't provide for Claim 6 I don't
24 provide any analysis above and beyond my
25 analysis of Claim 1 except by showing which

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2 portion of Claim 1 to refer to for Claim 6.

3 Q. You do not address the defenses in
4 claim language between Claim 1 and Claim 6,
5 correct?

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

14 Q. Also another example claim six
15 sites associated information rather than
16 related information, correct?

17 A. I think that's right.

18 Q. Did you analyze whether the claim
19 language differences between Claim 1 and
20 claim six reflect your obviousness analysis?

21 A. In my analysis of Claim 6 I did not
22 specifically address the differences in
23 language between Claim 1 and Claim 6.

24 Q. And just to be clear your entire
25 analysis of Claim 6 represents entirely on

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2 your analysis of Claim 1 without any
3 independent evaluation of Claim 6 language,
4 correct?

5 MR. MIDDLETON: Objection. Form.

6 A. As I said earlier my analysis of
7 Claim 6 relies on my analysis of Claim 1 and
8 I explained how for each limitation of Claim
9 6 where I showed that limitation is met
10 through my reference to a specific limitation
11 of Claim 1.

12 Q. And in your declaration you also
13 provide opinions about independent claims 2,
14 3, 4, 9, 10 and 11, correct?

15 A. Yes, that's right.

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

18 A. That's right. Perhaps indirectly,
19 but yes.

20 Q. And if Nagaoka fails to disclose
21 limitations of Claims 1 or 6, then Nagaoka
22 necessary fails to disclose these dependent
23 claims as well, correct?

24 A. That sounds like a legal question
25 but my general understanding is that's

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2 probably right.

3 Q. So Claim 4 which is your analysis
4 at paragraph 122 you state that Nagaoka
5 discloses a reduced image when pointing to
6 Nagaoka's cropped faces.

7 Do you see that?

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

10 Q. But Claim 4 requires a reduced
11 image is displayed on said display module as
12 the information showing the digital image
13 selected by said control module. That is
14 correct?

15 A. Yes.

16 Q. And do you agree that requires the
17 reduce image to show a digital image selected
18 by said control module, correct?

19 A. That appears to be what Claim 4
20 describes.

21 Q. Also in the same paragraph,
22 paragraph 122, I think it's the second
23 sentence you state that patent owners
24 infringement contentions similarly accuse
25 cropped thumbnails to meet this claim.

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2 Do you see that?

3 A. I do.

4 Q. And in other portions of your
5 declaration you mention patent owners
6 infringement contentions, correct?

7 A. Yes, I do.

8 Q. You understand that patent owners
9 infringement contentions against Samsung
10 products have nothing to do with whether
11 Nagaoka discloses the claimed elements,
12 correct?

13 MR. MIDDLETON: Objection. Form.

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

16 Q. I mean, I'm pointing to what you
17 have said here and you're citing patent
18 owners infringement contentions to prove to
19 provide your opinions.

20 Do you see that?

21 A. I see that.

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

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2 MR. MIDDLETON: Objection. Form.

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

15 Q. But Dr. Bederson, the question
16 before the board here is whether Nagaoka
17 renders the claims obvious. The infringement
18 contentions are directed to Samsung's
19 products not at Nagaoka. Do you agree these
20 are pretty analysis?

21 MR. MIDDLETON: Objection. Form.

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

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2 relationship between them my opinion is that
3 there is a similarity and that patent observe
4 errs thus patent owner's interpretation of
5 mean of these claims seems to be similar to
6 the way that I have understood these claims
7 since they a point today similar things and
8 their infringement contentions as to what I
9 have identified in some of the prior art.

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

14 MR. MIDDLETON: Objection. Form.

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

19 Q. For example, looking at paragraph
20 109 you point to or you state that a POSITA
21 would have further found it obvious to
22 organize digital images based on underlying
23 metadata including the date the photo was
24 taken.

25 Do you cite any evidence for that

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2 statement?

3 A. Yes, I do. I cite throughout my
4 report to the background section of the
5 technology starting in paragraph 53 as well
6 as my qualification section starting at
7 paragraph four. So for example in the legal
8 standards under obviousness in paragraph 26 I
9 explained that obviousness has been explained
10 to me as based on a number of things
11 including the scope and content of the prior
12 art. That's one. Two, the differences
13 between the prior art and the claim. Three,
14 the level of ordinary skill in the art. And
15 that including what a person of ordinary
16 skill in the art would know or did know. And
17 so the background section and my
18 qualifications section give examples of the
19 level of ordinary skill in the art and those
20 are all things that a person of skill in the
21 art would consider in understanding whether
22 the prior art showed that something was
23 obvious. So in this particular case whether
24 digital images are based on underlying
25 metadata such as the date the photo was taken

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2 that is disclosed in multiple places in in my
3 declaration so for example, I refer to,
4 starting in paragraph 53, a number of
5 commercial systems including digital cameras,
6 photo management software such as ACDSee,
7 commercial software such as Canon PowerShot,
8 and a photo finder which is research software
9 created by my colleague Ben Schneider man at
10 the University of Maryland and that
11 describes, for example in Figure 4 in
12 paragraph 58, the date associated with a
13 photo and its metadata, including other
14 metadata such as a description, keyword,
15 location, people in the library, people in
16 the photo, and so on. Similarly, I describe
17 PhotoMesa in paragraphs 14 and 15 which was
18 published and well known, that was software
19 that I wrote myself, and that included
20 metadata such as for example the folder that
21 a photo was in and that is illustrated in
22 Figure 1 of paragraph 14.

23 So there are many disclosures of
24 this concept of that digital images can be
25 based on underlying metadata, including the

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2 date the photo was taken.

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

11 MR. MIDDLETON: Objection. Form.

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

19 MR. MIDDLETON: Counsel, we've
20 been going for about an hour and it's
21 12:30, can we break for lunch soon?

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

24 THE COURT REPORTER: We're off the
25 record.

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2 (Off the record from 12:29 p.m. to
3 1:30 p.m.)

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

6 BY MR. JAVED:

7 Q. Dr. Bederson, after ground two
8 you're relying on the combination of Nagaoka
9 and Benjamin?

10 A. Yes, that's right and since this is
11 an obviousness ground it also includes the
12 knowledge of a person of skill in the art.

13 Q. I have Exhibit 1005 in the chat
14 group. Let me know when you downloaded it?

15 (Exhibit 1005 was introduced.)

16 A. Okay.

17 Q. Do you recognize this document?

18 A. Yes, this is US patent 6721489 that
19 I refer to as Benjamin.

20 Q. Benjamin relates to a playlist
21 manager that can be used create and to update
22 playlists correct?

23 A. Benjamin does include a playlist
24 manager that can be used to create and update
25 playlists.

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2 Q. And Benyamin means disclosing
3 arguments are directly related to audio
4 tracks, correct?

5 A. Well it's quite clear as disclosed
6 in the second sentence of the abstract that
7 the playlists can be used for audio
8 information, visual information or
9 combination of audio and visual information.

10 Q. Benyamin's primary disclosing
11 embodiment involves a music server installed
12 in an automobile, correct?

13 A. Again, Benyamin is quite clear it
14 applies equally to audio information and
15 visual information but I do agree that it
16 describes a does include a description of an
17 audio system in an automobile.

18 Q. Benyamin does not disclose a
19 digital image recording and disclosing
20 apparatus as described in the '198 patent,
21 correct?

22 A. Well, to be clear, Benyamin
23 absolutely does disclose digital images and
24 management of digital images. I explain that
25 in my declaration but for example in column 3

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2 starting at lines 54 it describes that it
3 addresses visual data including video,
4 animation, slideshow, text, still images, et
5 cetera thus the present invention can be used
6 a serve very for video data visual text data
7 speech data or any other type of audio visual
8 data.

9 Q. Benyamin does not disclose face
10 recognition technology, correct?

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

22 Q. But my question again was, does
23 Benyamin explicitly disclose face recognition
24 technology?

25 MR. MIDDLETON: Objection. Form.

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2 A. Well my analysis is one of
3 obviousness and how a person of skill would
4 understand the disclosures of Benyamin and
5 for the reasons I just said a person of skill
6 in the art would understand that Benyamin
7 does disclose automatic categorizations of
8 media including images and video and that
9 could include face recognition. So I did not
10 perform an analysis of participation so I
11 don't have an answer, I did not perform an
12 analysis or have an opinion about what it
13 expressly discloses or rather if it expressly
14 discloses face recognition. I don't recall
15 using that language but for all the reasons
16 I've said, a person of skill would understand
17 that it absolutely would include automatic
18 recognition of content such as face
19 recognition and regardless of that a person
20 of skill in the art would be highly motivated
21 to combine Benyamin with Nagaoka for the
22 reasons that I explained in my declaration in
23 paragraphs 135 through 138.

24 Q. Is there anywhere in Benyamin where
25 face recognition phase is disclosed?

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2 MR. MIDDLETON: Objection. Form.

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

13 Q. Does Benyamin disclose any
14 algorithm for face recognition technology?

15 A. Well it clearly discloses using
16 various criteria to automatically add media
17 such as digital images and video to
18 playlists. I don't recall it specifically
19 describing an algorithm for face recognition
20 technology.

21 Q. You did not explain how a POSITA
22 would integrate Benyamin's audio system into
23 Nagaoka's face recognition system, correct?

24 A. I disagree. I did describe how a
25 person of skill in the art would have --

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2 would have added the telop and selecting many
3 of features of Benyamin to Nagaoka, which are
4 the some of the specific disclosures of
5 Benyamin that I relied on for this
6 combination.

7 Q. Did you in your declaration
8 specifically state how these two references
9 would be indicated?

10 MR. MIDDLETON: Objection. Form.

11 A. Yes, I did. So for example in
12 paragraph 139 addressing Claim 5 and its
13 requirement using a telop I explained how
14 Benyamin's telop would be used with Nagaoka's
15 system to offer a way for user to confirm
16 that a track should be added to the playlist
17 using that telop.

18 Q. Did you provide any specific
19 details what modifications would have to be
20 done to Nagaoka to integrate Benyamin?

21 A. I'm not sure what do you mean by
22 details. If you mean using an extremely well
23 known telop or window to add to one graphical
24 user interface to another graphical user
25 interface, I explained how a POSITA would

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2 have been familiar with the wide range of

3 graphical user interfaces, including telops,

4 not only the ones of Benyamin but I also

5 explained in the background section starting

6 in paragraph 53 as well as my own

7 qualification section starting in paragraph

8 four how telops such as pop-up windows four

9 showing additional information can be added

10 to a GUI. So one example is in paragraph 14

11 where a showed my own work a PhotoMesa that

12 was published and freely software that was

13 widely used there's a picture of the a

14 graphical user interface with a pop-up window

15 which shows a larger thumbnail which is a

16 form of a telop. I explained in my ground

17 two section motivation to combine in

18 paragraphs 135 to 138 how this kind of

19 integration was not only well known but it

20 was using known methods to yield predictable

21 results and it would've required minimal

22 modifications and would not have required

23 undue experimentation and would have resulted

24 in a predictable result.

25 Q. There is no teaching solution on

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2 motivation in either references for the
3 combination, correct?

4 A. I disagree for many of the reasons
5 that I've just explained.

6 Q. Could you point to me in Nagaoka
7 where Nagaoka disclosures teaches such as
8 motivation to modify the system, the Nagaoka
9 system?

10 A. Sure. In my paragraph 139 in the
11 last sentence I explain that using the telop
12 of Benyamin furthers Nagaoka's goal to
13 organize even hundreds of photos in a short
14 time based on the people appearing therein.
15 And for the reasons I just explained, or
16 summarized from the background section of my
17 report as well as my qualifications, a person
18 of skill in the art would have been highly
19 motivated to build a graphical user interface
20 that managed the trade-off between use of
21 screen space speed for user to accomplish a
22 task. And that's just a basic extremely well
23 known trade-off. A user would know that they
24 could choose to put selection menus within a
25 graphical user interface, which might be a

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2 little bit faster but would take up more
3 space and thus could potentially make other
4 things slower, or they could put such a menu
5 in as a Pell on in a pop-up window or a
6 dialogue box which would use less space in the
7 primary window, thus making other things
8 faster but might require one additional step
9 to access the telop window and I reference
10 that idea in paragraph 136 when I said that a
11 POSITA would naturally wish to be able to
12 display a selecting menu or telop in any
13 visual display when selecting options on a
14 display.

15 Q. So looking back at paragraph 139 it
16 is your testimony that Nagaoka's goal to
17 organize even hundreds of photos in a short
18 time based on the people appearing therein is
19 this additional motivation for the
20 combination, is that right?

21 A. That is part of the motivation that
22 I described.

23 Q. And it is your testimony that
24 Nagaoka the system disclosed in Nagaoka is
25 unable to display organize even hundreds of

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2 photos in a short time based on the people
3 appearing therein?

4 MR. MIDDLETON: Objection. Form.

5 A. I disagree. Nagaoka explains that
6 one implementation of the present invention
7 goes on to explain can be used to allow the
8 user to organize hundreds of photos based on
9 people in a few minutes. So that's one of
10 the things that it supports and so a person
11 of skill reading this would understand that
12 they would be motivated to further support
13 that goal by for example including Benjamin's
14 telops.

15 Q. But just to be clear Nagaoka's goal
16 to organize even hundreds of photos in a
17 short time based on people appearing therein
18 is already supported and disclosed in
19 Nagaoka?

20 A. I think Nagaoka does describe that
21 it can support organizing hundreds of photos
22 and it's also a goal to support organizing of
23 large numbers of photos and so a person of
24 skill would understand that if there was a
25 way to further improve that goal then they

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2 would be motivated to modify Nagaoka by using
3 well known technologies such as the telop of
4 Benyamin.

5 Q. Let's move to Ground 3 Dr. Bederson
6 I just added Exhibit 1006 in the chat let me
7 know once you have downloaded it.

8 (Exhibit 1006 was introduced.)

9 A. Okay I have downloaded this
10 exhibit.

11 Q. Do you recognize this document?

12 A. I do.

13 Q. Could you tell me what it is?

14 A. It is US patent 8024757. I refer
15 to this as Nara.

16 Q. And just to clarify for Ground 3
17 what references did you rely on?

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

22 Q. Nara relates to a digital broadcast
23 receiver capable of producing time and labor
24 to back up contents recorded on one recording
25 media to another recording media, is that

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2 correct?

3 A. I see that is part of the
4 description of Nara from the abstract but as
5 I explained in paragraph 142 more generally
6 Nara describes organizing digital images into
7 lists and managing the content using digital
8 recorders similarly to Nagaoka.

9 Q. Nara is about backing up recorded
10 broadcast content from one medium to another,
11 correct?

12 A. I think it is true that Nara
13 includes backing up media from one device to
14 another but as I explained in paragraph 142
15 more generally it describes organizing
16 digital images into lists and managing the
17 content using digital recorders.

18 Q. And Nara's generally directed at
19 different broadcast receivers, correct?

20 A. Again, Nara does disclose digital
21 broadcast receivers but as I explained in
22 paragraph 142 a person of skill in the art
23 would understand Nara more generally to
24 describe organizing digital images into lists
25 and managing the content using digital

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2 recorders.

3 Q. And Nara does not dust close face
4 recognition technology, correct?

5 A. Nara discloses generally
6 automatically extracting and rearranging
7 content according to content attributes that
8 are recorded in recording medium that is
9 described, for example in column 5 lines 34
10 through 36 it does not restrict the kinds of
11 attributes or automatic extraction of those
12 attributes so a person of skill in the art
13 would understand that that could include face
14 recognition of -- from images and video.

15 Q. Nara does not disclose face
16 recognition algorithm anywhere in his
17 disclosure, correct?

18 A. Again, as I just said, Nara
19 discloses generally automatically extracting
20 and rearranging the contents of media
21 according to content attribute, it does not
22 restrict that automatic retraction to any
23 particular kind and so a person of skill in
24 the art reading Nara would understand that
25 that could include face recognition, but

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2 sitting here right now, I don't see it
3 specifically describing an algorithm for face
4 recognition.

5 Q. And just to confirm, Nagaoka does
6 not disclose more than one recording medium,
7 correct?

8 A. I disagree. So if you look at
9 Nagaoka column 3 starting at around Line 17
10 it says that the image input device 20 may be
11 one or more of any number of devices for
12 providing digital image data derived from
13 photographic film or a digital camera e.g., a
14 recording medium (a CDR, floppy disc, et
15 cetera).

16 Q. But Nagaoka has no concept of
17 backing up from one medium to another,
18 correct?

19 A. I disagree. Nagaoka describes an
20 image input device 20 which can be a digital
21 camera and then it also describes copying
22 those images into image memory 32. That
23 copying of those images is a form of backup.

24 Q. Could you provide me where exactly
25 is that disclosed?

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2 A. Well I just finished reading some
3 of the disclosure about image input device 20
4 that can be a digital camera. We discussed
5 earlier image 32 and how images can be
6 retrieved and copied to 32. So a person of
7 skill would understand that when an image is
8 copied from a camera into image memory within
9 the media organizing and processing unit,
10 that is a copy which is a backup. So for
11 example if image input device 20 went away
12 for some reason and the image had been copied
13 to image memory, the system would still have
14 access to the images and image memory even
15 though they no longer had access to the
16 images in I am image input device 20 and thus
17 image would be a form of backup.

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

21 A. I disagree. That is based on how a
22 person of skill in the art would read Nagaoka
23 and how they would understand Nagaoka's
24 disclosures.

25 Q. But that again is POSITA's

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2 understanding Nagaoka does not disclose the
3 concept of backing up from one recording
4 medium to another, correct?

5 MR. MIDDLETON: Objection. Form.

6 A. I disagree for the reasons I said.
7 Since the person of skill in the art reading
8 Nagaoka would understand it in the way I just
9 described, Nagaoka does disclose that.

10 Q. I'm still confused the section you
11 pointed out in Nagaoka, I don't see any
12 disclosure about backup from one medium to
13 another. Could you explain again because I'm
14 looking at, you know, column 3 starting at
15 line 16 I think that's what you were reading
16 earlier?

17 A. Sure. So when a person of skill in
18 the art reads Nagaoka they would see that in
19 column 3 starting at around line 16 it
20 includes an image input device 20 that can be
21 a digital camera. It goes on to explain that
22 at line 25 the media organizing and
23 processing unit 30 receives digital image
24 data from the image input device 20.

25 So that receiving is that receiving

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2 results in the images from the image input
3 device 20 being copied to the image memory 32
4 described in part in column 3 lines 45
5 through 49 so when a person of skill in the
6 art reads these three disclosures from
7 column 3 they would understand that images
8 are retrieved from the digital camera and
9 stored on image memory 32 and that is a form
10 of backup because as I said if the digital
11 camera was no longer available the images
12 would still be available in image memory 32.

13 Q. Again the disclosure you just
14 mentioned, it does not say that all the data
15 from image input device 20 is stored on image
16 memory 32, is that right?

17 A. As I said, in column 3 lines --
18 line 25 it says that the media organizing and
19 processing unit 30 receives digital image
20 data from the imaging input device 20. I
21 don't know if it specifically describes it
22 says receiving all of the images from the
23 digital -- the input sorry the image input
24 device 20 or not, I would have to look at
25 Nagaoka more thoroughly to answer that

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2 question.

3 Q. What is your understanding of the
4 word backup based on your experience and
5 expertise teaching and, you know, work?

6 A. Well that is not a claim term or
7 even a term that I think shows up in the '198
8 patent so I certainly did not offer a
9 construction or a definition of that word so
10 I don't have a construction or a definition
11 to offer to you today.

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

15 A. As I just said, I really don't have
16 definition to offer you. I did explain
17 sitting here today this obviously was not in
18 my declaration but why I think Nagaoka
19 discloses a form of backup at least because
20 it makes a copy of an image that is available
21 if the original image device is no longer
22 available. So that's not a definition but I
23 think that's a disclosure that person of
24 skill in the art reading it would understand
25 is a form of backup.

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2 Q. Can you point me to any passage in
3 your declaration where you explain the
4 specific technical steps a person of ordinary
5 skill in the art would take to modify Nagaoka
6 to incorporate Nara's dubbing capabilities ?

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

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2 of the digital images related information in
3 playlists based on Nara's disclosure of
4 recording on the recording medium the list of
5 programs from the receiver.

6 Q. Is there any teaching suggestion of
7 motivation in either references for the
8 combination which you just pointed out?

9 A. Yes, I addressed this in my
10 paragraph 142 through 145. So for example I
11 explain motivation to combine such as in
12 paragraph 143 I explain that such a
13 combination involves a combination of prior
14 art elements according to known methods to
15 yield predictable results, which would have
16 been one motivation. They also as I explain
17 in paragraph 144 would've had a reasonable
18 expectation of success and that it would've
19 required minimal modifications that would not
20 have required undue experimentation and would
21 have yielded the predictable results.
22 Furthermore a person of skill in the art
23 move' been motivated based on their knowledge
24 which I explain in the background section
25 starting in paragraph 53 as well as in my

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2 qualification section starting in paragraph
3 three or four. I think it's four.

4 Q. You did not provide any suggestion
5 or motivation in Nagaoka's disclosure to
6 combine the dubbing functionality for Nara
7 correct?

8 A. I disagree. I think I just
9 explained it.

10 Q. Could you point to me where, what
11 disclosure you just pointed out in Nagaoka
12 which suggests teachings for the combination?

13 A. Sure. I explained this throughout
14 paragraphs 142 through 145. A person of
15 skill in the art would've been motivated to
16 combine Nagaoka and Nara to improve Nagaoka
17 for any number of reasons such as the ones
18 I've explained as well as just general
19 improving Nagaoka based on the knowledge that
20 they would have some of the specific reasons
21 I've already described, such as providing
22 some of the benefits of Nara, for example to
23 offer dubbing capabilities. I also explained
24 specific motivations based on having a
25 reasonable expectation of success requiring

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2 minimal modifications and not having to
3 require any undue experimentation and having
4 an expectation of a predictable result.

5 Q. Again, my question was, the
6 disclosure from Nagaoka, which suggests or
7 provides motivation for this combination.
8 That I don't see in your declaration. Could
9 you point to me if it is there?

10 A. I think I've already explained that
11 Nagaoka provides a general system including
12 the ability to support digital images into
13 lists and managing the content using digital
14 recorders and a person of skill in the art
15 would be motivated to use that system and
16 improve it according to their knowledge and
17 the reasons that I've described.

18 Q. So your testimony is because
19 Nagaoka has this media recording systems
20 that's why a POSITA would be motivated to
21 combine the dubbing functionality from that,
22 is that correct?

23 A. That's part of the explanation. I
24 think I just finished giving my explanation
25 but that was part of what I said.

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2 Q. So any video recording system is
3 right for improvement and to include dubbing
4 functionality, is that your testimony?

5 A. No. I did not say anything about
6 any recording system. I gave a specific
7 opinion about Nagaoka and Nara.

8 Q. Other than Nagaoka disclosing the
9 video recording or video system, what else is
10 there in Nagaoka which points or suggests or
11 teaches that a dubbing system from Nara
12 should be combined?

13 A. Well, as I explained in paragraph
14 47 additionally to what I've already
15 explained, Nagaoka also describes a creation
16 of a list that can be used for a playlist.
17 It already describes a list that can be used
18 for one thing so a person of skill would be
19 motivated to use that list for other natural
20 purposes that are well within the scope of
21 media management and to the extent that
22 dubbing specifically is required, then adding
23 on Nara's ability to dub the items in the
24 list as well as using that list for a
25 playlist would be something that would be a

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2 POSITA would be motivated to do because in
3 addition to the reasons I just said they have
4 already got a list that can be used for one
5 thing and if they could improve their system
6 to also use that list for dubbing that would
7 be an advantage.

8 Furthermore, Nara provides various
9 benefits that I describe in paragraph 148.
10 The benefits that I describe come from
11 multiple places, from Nagaoka, from Nara,
12 from the background, knowledge of person of
13 skill in the art and their general
14 understanding of what such combination would
15 entail.

16 Q. Let's go to paragraph 147 and I
17 think here you are providing your opinions
18 regarding claim 13?

19 A. Okay.

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

22 A. Claim 13 preamble starts with a
23 dubbing list-creating method.

24 Q. And you state in paragraph 147 that
25 a POSITA would have understood that there is

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2 nothing distinct between a dubbing list and a
3 playlist except for the purpose to which the
4 list is to be used.

5 Correct?

6 A. That's right.

7 Q. But will you agree that the '198
8 patent defines a dubbing list as a list of
9 programs to be recorded on another recording
10 medium, correct?

11 A. I don't think it defines that but
12 it does describe that's what this dubbing
13 list creating method is for is to create the
14 dubbing list which potentially later on could
15 be used for recording onto another recording
16 medium.

17 Q. That was my second question. Did
18 the purpose of dubbing is to copy programs
19 from one recording medium to another,
20 correct?

21 A. I don't think this provide a
22 definition or a purpose, it merely requires
23 describes a requirement is that there is a
24 dubbing list and that dubbing list it
25 explains a potentially could be used in the

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2 future to record onto another recording
3 medium. But the actual requirement is only
4 to create the list, the dubbing list.

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

7 A. I didn't offer an opinion about
8 that. It might.

9 Q. But using Nara's dubbing
10 functionality to compensate Nagaoka's
11 deficiencies, correct?

12 MR. MIDDLETON: Objection. Form.

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

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2 Q. For each limitation of claim 13
3 your declaration simply cross references the
4 analysis of claims 1 and 6, correct? And
5 this is starting from paragraph 149 all the
6 way through paragraph 155 of your report?

7 A. That is true for claim limitations
8 13A through 13G but I did provide specific
9 analysis for 13 preamble in columns 147
10 through 148.

11 Q. And just to be clear you did not
12 provide any separate analysis for the claim
13 13 limitations, 13A through 13G, correct?

14 A. For limitations 13A through 13G I
15 provided my analysis of Nagaoka in view of
16 Nara by referencing various limitations of
17 Claim 1 and 6.

18 Q. And claim 13 is an independent meta
19 claim with different language from claims 1
20 and 6, you agree?

21 A. I think there's a lot of
22 overlapping language but there's certainly
23 some difference in language.

24 Q. So if Nagaoka fails to disclose the
25 limitations of claims 1 and 6 the analysis of

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2 claim 13 also fails, correct?

3 MR. MIDDLETON: Objection. Form.

4 A. That sounds like a legal question
5 so I don't have an opinion about that.

6 Q. Going to put Exhibit 1007 in the
7 chat. Dr. Bederson let me know once you
8 downloaded it?

9 (Exhibit 1007 was introduced.)

10 A. Okay.

11 Q. Do you recognize this document?

12 A. I do.

13 Q. Could you describe it to me?

14 A. This is US patent publication
15 number 2003/0099460 and I refer to this as
16 Imada.

17 Q. And for Ground 4 what references
18 are you relying on?

19 A. For Ground 4 I'm relying on
20 references Nagaoka in view of Nara, Benjamin
21 and Imada and because this is an obviousness
22 analysis it also includes the knowledge of a
23 person of skill in the art.

24 Q. And is it correct to say that Imada
25 reference disclosed is a recording apparatus

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2 for recording a plurality of audio-visual
3 contents stored in a HD to a writable DVD,
4 correct?

5 A. I agree that Imada using that
6 language in the abstract and as I explained
7 in paragraph 157 more generally it describes
8 managing content using a recording digital
9 media.

10 Q. And Imada does not disclose face
11 recognition technology, correct?

12 A. I don't recall Imada disclosing
13 face recognition technology.

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

17 A. I wouldn't say that I'm asking a
18 POSITA to combine them I'm saying a POSITA
19 would be motivated to combine them.

20 Q. And you believe these four
21 references are directed to four different
22 problems, be correct?

23 A. As I said in paragraph 157 I think
24 all four references are in the same general
25 field of managing content using a recording

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2 digital media.

3 Q. But my question was these four
4 references are solving four different
5 problems, correct?

6 MR. MIDDLETON: Objection. Form.

7 A. First of all I don't know that that
8 is relevant to an obviousness analysis but
9 what I do know is that they are each in the
10 same general field they disclose many
11 similarities related to managing recordings
12 of digital immediate and I explain the
13 specific motivations of why a POSITA would be
14 motivated to combine them.

15 Q. But again, the question was did
16 these four references are directed to four
17 different problems, correct?

18 MR. MIDDLETON: Objection. Form.

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

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2 Q. But you didn't answer my question
3 it's a simple question. These four
4 references which we just discussed are
5 directed to four different problems, correct?

6 MR. MIDDLETON: Objection. Form.

7 A. So the answer to that is no, they
8 address similar problems and they also have
9 differences.

10 Q. So you're saying this four
11 references Nagaoka, Nara, Benyamin and Imada,
12 they were all addressing the same problem?

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

22 Q. Apart from what you said about the
23 similarities my question is about the
24 problems the problems inventors of these four
25 references, they are different problems,

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2 correct?

3 MR. MIDDLETON: Objection. Form.

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

11 Q. Just to be clear, Nagaoka organized
12 photos by face recognize, Nara backs up
13 broadcast content. Benjamin manages audio
14 playlist in a car Imada copies content from
15 an HD to a DVD. Those are four different
16 systems solving four different problems,
17 correct?

18 MR. MIDDLETON: Objection. Form.

19 A. I disagree. You characterized four
20 lengthy documents with one sentence each and
21 so there may be parts of those disclosures
22 which are consistent with with your
23 descriptions but those are not a fully
24 characterizing those four documents. All
25 four documents as I explained are in the same

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2 general field of managing content using a
3 recording digital media. As a simple example
4 Nagaoka includes face recognition but it is
5 not limited to face recognition for all of
6 the reasons I've explained it discloses many
7 other things, including organizing media
8 related to metadata as do the other kinds of
9 prior art as well.

10 Q. Can you point to any single
11 reference that suggests combining all four of
12 these references together?

13 MR. MIDDLETON: Objection. Form.

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

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2 motivations in describing the combination
3 that I have, including the fact that all four
4 are in the same general field of managing
5 content using a recording digital media.

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

10 A. To be clear my understanding of the
11 analysis of obviousness is that there are
12 many factors that can be considered in
13 motivating a person of skill in the art to
14 combine having a single problem that all the
15 pieces of prior art solve is not on the list
16 of criteria that was provided to me here so
17 I'm not sure I fully understand your
18 question. But I will say that all four
19 references do address issues of improving
20 managing content using a recording digital
21 media.

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

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2 MR. MIDDLETON: Objection form.

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

9 Q. Should we take a break?

10 A. Okay.

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

13 (Off the record from 2:34 p.m. to
14 2:46 p.m.)

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

17 BY MR. JAVED:

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

22 (Exhibit 1008 was introduced.)

23 (Exhibit 1009 was introduced.)

24 (Exhibit 1016 was introduced.)

25 (Exhibit 1022 was introduced.)

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2 A. Okay.

3 Q. Have you seen these documents
4 before?

5 A. Yes, I have.

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

8 A. Exhibit 1008 is US patent
9 publication number 2001/0026287, which is a
10 reference I refer to as Watanabe.
11 Exhibit 1009 is US patent number 6,953,886
12 that is reference I refer to as Looney.
13 Exhibit Number 1016 is US patent publication
14 number 2001/0056434 as a reference I refer to
15 as Kaplan. And Exhibit 1022 is US patent
16 number 6987221 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 two 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 subject matter
8 organizing digital images into lists and
9 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 and
17 while I agree it does disclose management of
18 copyrighted material and cop management, more
19 generally it organizing digital images into
20 lists and managing the content.

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

24 A. Well first of all Watanabe is quite
25 explicit that it's describes the application

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2 to various digital contents including images
3 so for example at paragraph 47 it says that
4 the contents assisted management system one
5 is able to process various digital contents
6 such as music data and image data and then in
7 paragraph 167 it goes on to explain that
8 image data of movies or the like (moving
9 images) can be recorded and reproduced. As
10 far as disclosures of digital images in the
11 figures, one example is in Figure 13 where in
12 Box 87 there are music notes which are
13 digital images.

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

17 A. So in Figure 13 there's a box in
18 roughly the Middlesex of the figure that is
19 labeled 87 and 87 consists of multiple
20 columns and in the left column it is the
21 first row says song title and the next four
22 rows each have two visual music notes and
23 those music notes are digital images. And as
24 I said earlier, Watanabe is quite clear that
25 its disclosure generally applies equally to

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2 digital images and audio, so while the rest
3 of figure some other elements of Figure 13
4 describe audio content, a person of skill
5 reading Watanabe would understand that also
6 discloses digital images and that the audio
7 content in Figure 13 is merely an example.

8 Q. So just to clarify and for my
9 understanding, you're pointing to the musical
10 note signs as digital images?

11 A. That is one example of the digital
12 images that I pointed to in my analysis of
13 Watanabe.

14 Q. And is it disclosed in the
15 specification that those musical notes are
16 image -- digital images?

17 A. Yes, they are. In paragraph 119 it
18 describes them as icons. So the second half
19 of paragraph 119 says quote the display
20 Section 87 displays music data read from the
21 music data storage Section 14 for an icon the
22 contents transferrable number of times and it
23 goes on from there.

24 Q. So you're saying because 119 talks
25 about icons and these icons are digital

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2 images, that's what you're saying?

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

10 Q. And could you point to me any
11 disclosure in Watanabe that shows thumbnails
12 of digital images?

13 A. Well to be clear the '198 patent
14 does not claim thumbnails. But as far as
15 Watanabe it describes, for example in Figure
16 13 these lists of media which it explains can
17 be digital images. Person of skill in the
18 art reading Watanabe would understand that
19 when a graphical user interface in a
20 relatively small area like this that displays
21 a list of images, it would display them using
22 thumbnails and that is consistent with the
23 background description that I provided in my
24 declaration starting at paragraph 53, for
25 example the display of thumbnail images to

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2 display lists of images has been available at
3 least since Microsoft Windows 95 as I showed
4 in paragraph 54 I showed a number of other
5 systems that described thumbnails and I use
6 thumbnails myself in the PhotoMesa system in
7 the papers built and wrote papers about in
8 paragraphs 14 and 15 so that is all well
9 known knowledge that a person of skill in the
10 art would have that they would apply when
11 they read Watanabe's disclosure that its
12 interface can use and apply to digital
13 images.

14 Q. And just again in paragraph 119
15 when you mention icons, watt does not call
16 them digital images, you're relying on the
17 knowledge of POSITA for that purposes,
18 correct?

19 A. I was relying on Watanabe's
20 disclosure that it applies generally to image
21 data as well as a person of skill in the
22 art's knowledge that icons at least typically
23 consistent of digital images and as far as
24 the particular icons that are depicted in
25 Figure 13 a person of skill in the art

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2 looking at Figure 13 would understand that to
3 be a deliver of a digital image.

4 Q. So you use the word typically
5 consistent of can icons be something other
6 than a digital image?

7 A. I didn't offer a definition or
8 construction of icon so I don't have a
9 specific definition to give you which is why
10 I use the word typically but at the very
11 least a person of skill in the art would see
12 these and see that they certainly look like
13 digital images and this at very least a
14 disclosure of a digital image.

15 Q. Based on your background and
16 experience what can icons be, like can then
17 other than a digital image?

18 A. Again, I don't have a construction
19 or definition to give you so I cannot provide
20 the full scope and bounds of the term. What
21 I can say is that when a person of skill in
22 the art reading Watanabe in particular
23 looking at Figure 13 in the context of its
24 specification would understand those notes to
25 be a disclosure of a digital image.

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2 Q. Can you point me to any passage in
3 Watanabe, Watanabe specification that
4 describe recording, reproducing, selecting or
5 retrieving digital images?

6 MR. MIDDLETON: Objection. Form.

7 A. I think I've already provided that
8 in that Watanabe describes recording and
9 reproducing and displaying media throughout
10 Watanabe and I explained it in detail
11 throughout this section of my declaration
12 starting well in Ground 6 starting at
13 paragraph 166 and because Watanabe is no
14 explicit that its disclosure applies to
15 digital images as well -- well through its
16 disclosure of image data and also image data
17 of movies that is clear that all of its
18 disclosure applies to digital images.

19 Q. So when you said all the disclosure
20 applies are you saying that Watanabe does not
21 explicitly disclose recording, reproducing,
22 selecting, retrieving digital images?

23 A. No that's not what I said. It does
24 describe recording, reproducing, retrieving,
25 of digital media and in paragraph 47 it

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2 explains that its contents assisted
3 management system is able to process various
4 digital contents such as music data and image
5 data so when a person of skill reads Watanabe
6 they would understand that all of its
7 disclosures of the contents assisted
8 management system is also a disclosure of
9 digital images of how it processes digital
10 images.

11 Q. So the only basis for your
12 assertion that Watanabe discloses digital
13 images is a general statement in paragraph 47
14 and also what you're referring to in
15 paragraph 119, is that correct?

16 A. There's additional disclosure in
17 167 that I've also already mentioned. An
18 additional reason is the knowledge of a
19 person of skill in the art that would
20 understand that digital images are a form of
21 media that would be well suited towards
22 managing with the kind of system disclosed in
23 Watanabe, especially given its clear
24 disclosures that it includes digital images.

25 Q. No further questions.

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2 MR. MIDDLETON: Can we take a
3 ten-minute break into sure.

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

6 (Off the record from 3:09 p.m. to
7 3:18 p.m.)

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

10 MR. MIDDLETON: I have no
11 questions, thank you Dr. Bederson.

12 MR. JAVED: Thank you,
13 Dr. Bederson.

14 THE COURT REPORTER: We're going
15 off the record. Mr. Middleton, are
16 you ordering a rough draft?

17 MR. MIDDLETON: Yes, I'd like the
18 rough draft please but I don't need to
19 order the final.

20 THE COURT REPORTER: It's an
21 automatic with the rough draft and the
22 realtime. It's up to you if you still
23 want the rough.

24 MR. MIDDLETON: Okay, that's fine.

25 *** ROUGH DRAFT ***