

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

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

Petitioners,

v.

MAXELL, LTD.,
Patent Owner

Case: IPR2025-01314

U.S. Patent No. 8,180,198

**PATENT OWNER RESPONSE
TO PETITION FOR *INTER PARTES* REVIEW
OF U.S. PATENT NO. 8,180,198**

Mail Stop **Patent Board**
Patent Trial and Appeal Board
U.S. Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

TABLE OF CONTENTS

I.	INTRODUCTION	1
II.	BACKGROUND AND SCOPE OF THE PROCEEDING	1
A.	U.S. Patent No. 8,180,198.....	1
B.	The '198 Prosecution History	4
C.	Person Of Ordinary Skill In The Art.....	8
D.	Cited References	8
E.	The Prior Art	9
a.	Nagaoka	9
b.	Benyamin	9
c.	Nara.....	9
d.	Imada.....	10
e.	Watanabe.....	10
f.	Looney	10
g.	Platt	11
h.	Kaplan	11
F.	Instituted Grounds.....	11
III.	CLAIM CONSTRUCTION.....	12
a.	“retrieve”/“retrieval”	12
1.	Intrinsic Evidence Supports Patent Owner’s Construction.....	12
2.	Extrinsic Evidence Supports Patent Owner’s Construction.....	13
3.	Patent Owner’s Construction Is Necessary In Light of Petitioners’ Inconsistent Interpretation Of The Claims	15
IV.	GROUND 1: PETITIONERS HAVE FAILED TO ESTABLISH THAT CLAIMS 1-4, 6, AND 9-11 ARE RENDERED OBVIOUS BY NAGAOKA	19
A.	Nagaoka Fails To Render Obvious Limitation [6pre]	19
B.	Nagaoka Fails To Render Obvious Limitations [1b] and [6b]	22
C.	Nagaoka Fails To Render Obvious Limitations [1c.i], [6c], and [6d] .	30
D.	Nagaoka Fails To Render Obvious Limitations [1c.ii] and [6e].....	35
E.	Nagaoka Fails To Render Obvious Limitations [1c.iii], [1c.iv], [6f], and [6g]	36
F.	Nagaoka Fails To Render Obvious Claims 2-4 and 10-11	38

Patent No. 8,180,198
Patent Owner Response

V.	GROUND 2: PETITIONERS HAVE FAILED TO ESTABLISH THAT CLAIMS 5 AND 12 ARE RENDERED OBVIOUS BY THE COMBINATION OF NAGAOKA AND BENYAMIN.....	39
VI.	GROUND 3: PETITIONERS HAVE FAILED TO ESTABLISH THAT CLAIMS 7 AND 13 ARE RENDERED OBVIOUS BY THE COMBINATION OF NAGAOKA AND NARA.....	40
A.	Petitioners fail to establish that a POSITA would be motivated to combine Nagaoka and Nara	40
B.	The Combination Of Nagaoka and Nara Fails To Render Obvious Claim 13.....	42
VII.	GROUND 4: PETITIONERS HAVE FAILED TO ESTABLISH THAT CLAIMS 14-15 ARE RENDERED OBVIOUS BY NAGAOKA IN VIEW OF NARA, BENYAMIN, AND IMADA	44
VIII.	GROUND 5: PETITIONERS HAVE FAILED TO ESTABLISH THAT CLAIMS 8 AND 16 ARE RENDERED OBVIOUS BY NAGAOKA IN VIEW OF NARA AND BENYAMIN	46
IX.	GROUND 6: PETITIONERS HAVE FAILED TO ESTABLISH THAT CLAIMS 1-16 ARE RENDERED OBVIOUS OVER WATANABE IN VIEW OF LOONEY, PLATT, AND KAPLAN.....	48
A.	The Combination of Watanabe and Looney Fails To Render Obvious Limitations [1pre], [1a], [1b], [6pre], [6a], and [13a].....	49
B.	The Combination of Watanabe, Looney, and Platt Fails To Render Obvious Limitations [1c.i], [6c], [6d], [13b], [13c], and [13d]	53
C.	The Combination of Watanabe and Looney Fails To Render Obvious Limitations [1c.ii], [1c.iii], [1c.iv], [6e], [6f], [6g], [13e], [13f], and [13g].....	58
D.	The Combination of Watanabe, Looney, and Platt Fails To Render Obvious Claims 2-3 and 10-12	60
E.	The Combination of Watanabe, Looney, Platt, and Kaplan Fails To Render Obvious Claim 4.....	62
F.	The Combination of Watanabe, Looney, and Platt Fails To Render Obvious Claims 7-9	64
G.	The Combination of Watanabe, Looney, and Platt Fails to Render Obvious Claims 5 and 16.....	65
H.	The Combination of Watanabe, Looney, and Platt Fails to Render Obvious Claim 14	67
I.	The Combination of Watanabe, Looney, and Platt Fails to Render Obvious Claim 15	68
X.	CONCLUSION.....	69

PATENT OWNER’S EXHIBIT LIST

Description	Exhibit #
Notice Letter to Samsung (July 7, 2021)	2001
Follow-up Notice Letter to Samsung (December 29, 2021)	2002
Docket Navigator Time to Trial Statistics for the Eastern District of Texas	2003
Docket Control Order, Maxell, Ltd. v. Samsung Elecs. Co., Ltd., No. 5:25-cv-00052-RWS (E.D. Tex.)	2004
Jury Trial Transcript, Vol. 4, Maxell, Ltd. v. Samsung Elecs. Co., Ltd., No. 5:23-cv-00092-RWS (E.D. Tex.)	2005
Complaint, Maxell, Ltd. v. Samsung Elecs. Co., Ltd., No. 5:25-cv00052-RWS (E.D. Tex.)	2006
Follow-up Notice Letter to Samsung (April 21, 2025)	2007
Law360 Article, “Maxell Settles Patent Suit Against Apple Over Mobile Tech”	2008
Law360 Article, “Maxell Scores \$43M EDTX Jury Win In ZTE Patent Trial”	2009
Law360 Article, “Maxell, Huawei Reach Terms To End Smartphone Patent Suit”	2010
Hudson Institute Article, “Google’s Loss to Sonos Settles It, Big Tech Has an IP Piracy Problem”	2011
PatentRenewal.com Article, “which-companies-hold-the-mostpatents-in-the-world”	2012
Motion for Partial Summary Judgment of Validity Based on Sotera Stipulations, Maxell, Ltd. v. Samsung Elecs. Co., Ltd., No. 5:23-cv00092-RWS (E.D. Tex.)	2013
Follow-up Notice Letter to Samsung (November 28, 2024)	2014
Petitioner’s Invalidity Contentions (October 28, 2025)	2015
Declaration of Tariq Javed in Support of Patent Owner’s Motion for Pro Hac Vice Admission Pursuant to 37 C.F.R. § 42.10(c)	2016
Declaration of Ravin Balakrishnan, Ph.D.	2017
<i>retrieve</i>, Microsoft Computer Dictionary (5th ed. 2002).	2018

Patent No. 8,180,198
Patent Owner Response

<i>Retrieval, retrieve</i>, Bloomsbury Dictionary of Computing (5th ed. 2004).	2019
Deposition Transcript of Benjamin B. Bederson, Ph.D (April 29, 2026)	2020
Curriculum Vitae of Ravin Balakrishnan, Ph.D.	2021

I. INTRODUCTION

Patent Owner Maxell, Ltd. ("Patent Owner") respectfully requests that the Board confirm the patentability of claims 1-16 ("challenged claims") of U.S. Patent No. 8,180,198 ("the '198 Patent") (EX1001). Petitioners failed to show by a preponderance of the evidence that the challenged claims are unpatentable.

First, the scope of the claims of the '198 Patent include inventive and novel features glaringly absent from Petitioners' combination of the prior art. For example, Petitioners argue that reference Nagaoka discloses Claim 1 of the '198 Patent even though Nagaoka fails to disclose the retrieval function central to the '198 Patent's independent claims. Recognizing this deficiency, Petitioners resort to hindsight to overcome the separation between the prior art and the challenged claims. But Petitioners failed to carry their burden and cannot demonstrate that any claim is obvious in view of the asserted prior art. Thus, patentability of the challenged claims in the '198 Patent should be confirmed.

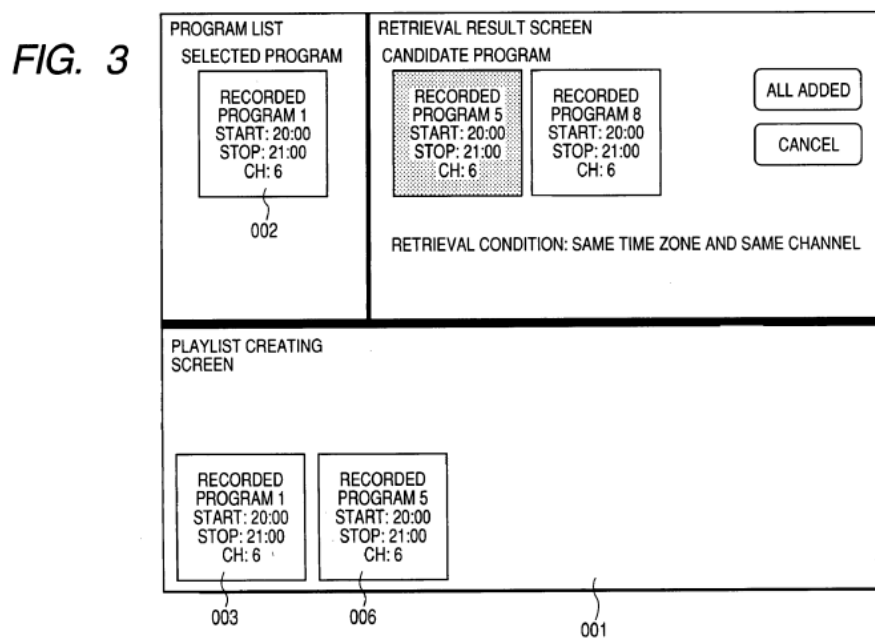
II. BACKGROUND AND SCOPE OF THE PROCEEDING

A. U.S. Patent No. 8,180,198

The '198 Patent, entitled "Playlist Creating Apparatus and Method, and Dubbing List Creating Apparatus and Method," is generally directed to a digital image recording and reproducing apparatus that includes an output module and control module to provide a playlist creating apparatus that "allows a user to select desired digital images from a plurality of programs and use the digital images to create a simple playlist or to select digital images to be dubbed to

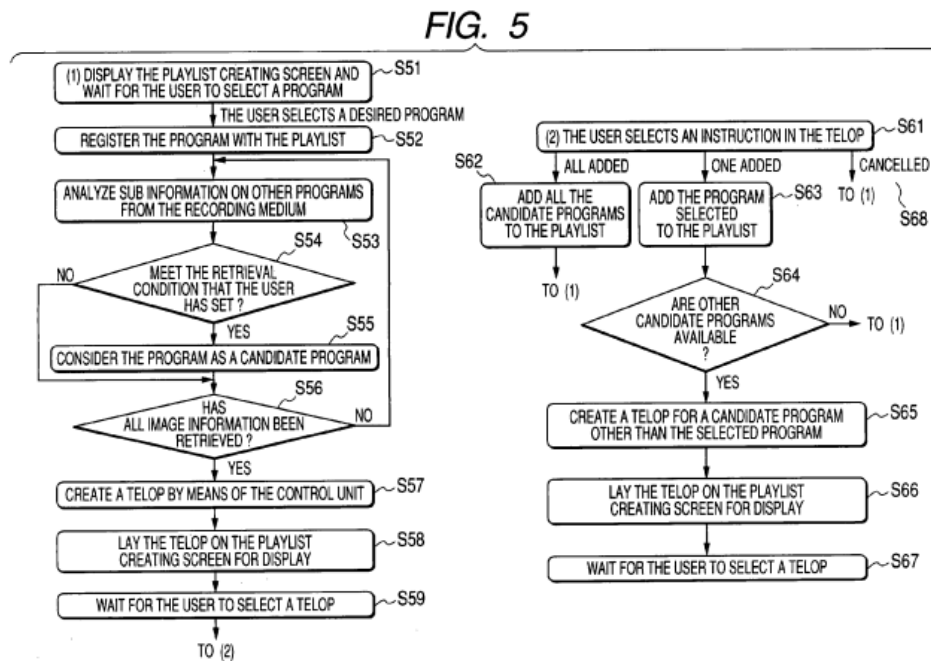
another recording medium.” EX1001, 1:42-46. U.S. Patent Application No. 11/054,775, which would ultimately issue as the ’198 Patent, claims priority to Japanese application published on July 21, 2004. EX2017 ¶46.

The ’198 Patent discloses a digital image recording and reproducing apparatus comprising methods such as a control module that retrieves a plurality of digital images. Based on one of a plurality of related information concerning a selected digital image chosen by the user, an output module displays the plurality of digital images and plurality of related information on a display module. EX1001, 2:28-4:42; EX2017, ¶47. For example, the plurality of related information can include channels, dates, and times that the digital images were recorded by the recording apparatus. EX1001, 2:63-6:06; EX2017, ¶47. In such cases, the control module will retrieve a plurality of digital images as candidates for a playlist based on a retrieval condition (*i.e.* same time zone and same channel) for display on the display module, as shown below in FIG. 3 of the ’198 Patent:



EX1001, FIG3; EX2017, ¶47.

Further, the '198 Patent discloses that the digital image recording and reproducing apparatus and methods also include techniques to provide dubbing functionality as part of playlist generation. EX1001, 4:46-6:30; EX2017, ¶47. An exemplary configuration is shown below in Figure 5 of the '198 Patent:



EX1001, FIG5; EX2017, ¶47.

B. The '198 Prosecution History

U.S. Patent Application No. 11/054,775, which would ultimately issue as the '198 Patent, claims priority to Japanese application published on July 21, 2004. During prosecution of the '198 Patent, the Examiner issued five office actions (three non-final office actions and two final office actions). EX1002, at 17, 37, 57, 74, 92; EX2017, ¶48. Throughout the course of prosecution, the claims were substantially amended, with challenged claim 1 included as illustrative:

1. (currently amended) A digital image recording and reproducing apparatus connectable to a display module, said apparatus comprising:

an output module which displays a plurality of digital image images and a plurality of related information concerning said digital images recorded in a recording medium on the display module, each digital image corresponding to one of said plurality of related information; and

a control module which selects a digital image, based on one of the plurality of information concerning the digital image recorded in said recording medium;

wherein ~~for a selected digital image selected by the user, said control module; said control module selects a digital image that corresponds to information concerning a digital image specified by a user, from digital images recorded in said recording medium, and adds information showing the selected digital image to said display module through said output module for display~~

retrieves other digital images whose related information is the same as the selected digital image,

outputs a list identifying the other digital images retrieved based on their related information, and

outputs a telop to select a plurality of the other digital images at one time when the telop is selected.

EX1002, 85 (September 19, 2008 amendments to claim 1).

1. (Currently Amended) A digital image recording and reproducing apparatus connectable to a display module, said apparatus comprising:

an output module which displays a plurality of digital images and a plurality of related information concerning said digital images recorded in a recording medium on the display module, each digital image corresponding to one of said plurality of related information; and

a control module which selects a digital image to add in a playlist, based on one of the plurality of information concerning the digital image recorded in said recording medium;

wherein for a selected digital image selected by the user, said control module:

retrieves other digital images whose related information is the same as the selected digital image,

outputs a list identifying the other digital images retrieved based on their related information to select another digital image to add in said playlist when said another digital image is selected by the user, and

~~outputs a telop to select a plurality of the other digital images at one time when the telop is selected~~

outputs said playlist including a plurality of said digital images added, wherein said plurality of digital images, said plurality of related information, said list identifying the other digital images, and said playlist are outputted in a same display.

Id. at 69 (June 26, 2009 amendments to claim 1).

1. (Currently Amended) A digital image recording and reproducing apparatus connectable to a display module, said apparatus comprising:

an output module which displays a plurality of digital images and a plurality of related information concerning said digital images recorded in a recording medium on the display module, each digital image corresponding to one of said plurality of related information; and

a control module which selects a digital image to add in a playlist, based on one of the plurality of information concerning the digital image recorded in said recording medium;

wherein for a selected digital image selected by the user, said control module:

retrieves other digital images whose related information is the same as the selected digital image,

outputs a list identifying the other digital images retrieved based on their related information to select another digital image to add in said playlist when said another digital image is selected by the user, [[and]]

outputs said playlist including a plurality of said digital images added, wherein said plurality of digital images, said plurality of related information, said list identifying the other digital images, and said playlist are outputted in a same display, and

outputs one of the other digital images to be positioned next to another one of the other digital images in said list identifying the other digital images.

Id. at 48 (February 16, 2010 amendments to claim 1).

1. (Currently Amended) A digital image recording and reproducing apparatus connectable to a display module, said apparatus comprising:

an output module which displays a plurality of digital images and a plurality of related information concerning said digital images recorded in a recording medium on the display module, each digital image corresponding to one of said plurality of related information; and

a control module which selects a digital image to add in a playlist, based on one of the plurality of information concerning the digital image recorded in said recording medium;

wherein for a selected digital image selected by the user, said control module:

retrieves other digital images whose related information is the same as the selected digital image, the other digital images being candidates for adding in said playlist,

outputs a list identifying the other digital images retrieved based on their related information to select another digital image to add in said playlist when said another digital image is selected from other digital images as the candidates by the user,

outputs said playlist including a plurality of said digital images added, wherein said plurality of digital images, said plurality of related information, said list identifying the other digital images, and said playlist are outputted in a same display, and

outputs one of the other digital images to be positioned next to another one of the other digital images in said list identifying the other digital images.

Id. at 48 (September 30, 2011 amendments to claim 1).

The prosecution history therefore demonstrates that the USPTO recognized that the interplay between the output module, control module including the digital image retrieval, and digital image output and arrangement of the '198 Patent as patentably distinct over the relevant art. EX1002, 48, 69, 85; EX2017, ¶49; Pet., 18-22. As shown below, Petitioner's cited references fail to disclose at least the same limitations as were discussed at length during prosecution, leading to the Notice of Allowance. EX1002, 48, 69, 85; EX2017, ¶49.

C. Person Of Ordinary Skill In The Art

A POSITA would have at least a Bachelor's degree in Electrical Engineering, Computer science, or a related field, with at least two years of experience in the field of digital image recording and processing, user interfaces, and content management. EX2017, ¶42.

D. Cited References

The Petition raises six grounds of alleged obviousness based on the following eight references:

1. U.S. Patent No. 7,822,233 ("Nagaoka") (EX1004),
2. U.S. Patent No. 6,721,489 ("Benyamin") (EX1005),
3. U.S. Patent No. 8,024,757 ("Nara") (EX1006),
4. U.S. Patent App. Pub. No. 2003/0099460 ("Imada") (EX1007),
5. U.S. Patent App. Pub. No. 2001/0026287 ("Watanabe") (EX1008),
6. U.S. Patent No. 6,953,886 ("Looney") (EX1009),

7. U.S. Patent No. 6,987,221 (“Platt”) (EX1022), and
8. U.S. Patent App. Pub. No. 2001/0056434 (“Kaplan”) (EX1016).

E. The Prior Art

a. Nagaoka

Nagaoka is directed to “a computer-based method and system for organizing media, and more particularly to a computer-based system and method for organizing digital photos in accordance with objects detected and recognized in the digital photos.” EX1004, 2:46-49, Figs. 1-2.

b. Benjamin

Benjamin “provides for a play list manager than can be used to create and update play lists. The play lists can be used for audio information, visual information or a combination of audio and visual information. In one embodiment, a play list stores the names of tracks to be played. The user of the play list manager creates a play list and specifies certain criteria for automatically adding tracks to the play list. When a new track is added to the environment, the system tests whether the track’s properties satisfy the criteria for the play list. If so, the new track is automatically added to the play list.” EX1005, 1:62-2:05.

c. Nara

Nara relates to “a digital broadcast receiver capable of reducing time and labor to back-up contents recorded on one recording medium to another recording medium.” EX1006, Abstract. Nara describes “a digital broadcast receiver characterized by comprising: extracting means for automatically extracting a

plurality of contents recorded, out of order, on a recording medium by a first attribute of the contents; and arranging means for automatically rearranging contents extracted by the extracting means according to a second attribute of extracted contents, for recording onto a second recording medium.” EX1006, 1:44-51.

d. Imada

Imada “relates to an improvement in a technique for making a backup copy of a content recorded in one recording medium in another recording medium.” EX1007, [0002].

e. Watanabe

Watanabe “relates to a contents management apparatus and contents management method in a computer having a function of managing the number of duplicated contents of music, movies or the like, which can be stored in a storage medium” (*id.* at [0002]), where “an object of the present invention to provide a contents management apparatus and contents management method in a computer, which allows contents to be easily written to a storage medium and read therefrom and managements the number of duplicate contents to be recorded on the storage medium to limit the duplication of contents and thus protect the contents by copyright.” *Id.* at [0007].

f. Looney

Looney “relates to media/data (music, books, movies, etc.) organization, playback and recording systems, and more particularly to a system that enables

organization, storage, playback and recording of a wide range of individual music selections/songs according to user-defined or pre-programmed list of categories.”

EX1009, 1:31-36.

g. Platt

Platt is directed to a method “for a library or collection of media items via selecting a plurality of seed items, at least one of which is an undesirable seed item.” EX1022, Abstract. Platt “relates generally to systems and methodologies that facilitate generation of playlists. The invention can also facilitate organization and access to media items by identifying items similar to desirable characteristics and dissimilar to undesirable characteristics by analyzing user selectable seed items. The present invention facilitates playlist generation for a library or collection of media items by permitting a user to select a plurality of seed items.” EX1022, 2:10-18.

h. Kaplan

Kaplan relates to “a multimedia management system for storing, manipulating, and displaying multimedia content The system provides users with a simple and intuitive method and computer program for reviewing multimedia content, which can include digital video, digital audio and text, still images, animation, and MIDI.” EX1016, [0004].

F. Instituted Grounds

The Board instituted Review on six grounds:

Ground	'198 Patent Claim(s)	Type of Challenge	Primary Reference
1	1-4, 6, 9-11	§ 103	Nagaoka
2	5 and 12	§ 103	Nagaoka in view of Benjamin
3	7 and 13	§ 103	Nagaoka in view of Nara
4	14-15	§ 103	Nagaoka in view of Nara, Benjamin, and Imada
5	8, 16	§ 103	Nagaoka in view of Nara and Benjamin
6	1-16	§ 103	Watanabe, Looney, Platt, and Kaplan

III. CLAIM CONSTRUCTION

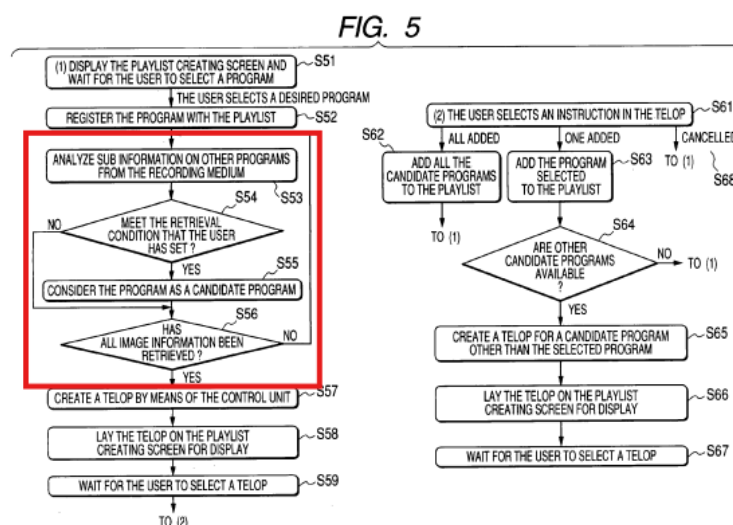
a. “retrieve”/“retrieval”

In light of the Petitioners’ inconsistent and incorrect understanding of certain claim terms (as detailed below), Patent Owner submits that the term “retrieve”/“retrieval” as appearing in the claims would be understood by a POSITA as “to extract a subset of items from a set of stored items.” EX2017, ¶¶52, 59.

1. Intrinsic Evidence Supports Patent Owner’s Construction

The specification of the ’198 Patent supports a construction of “retrieve”/“retrieval” as “to extract a subset of items (*i.e.*, candidate programs) from a set of stored items (*i.e.*, other programs stored in the recording medium).” EX2017, ¶59. For example, the ’198 Patent discloses that the user may “retrieve among the recorded programs” (a set of stored items) specific programs (a subset of items)

that meet the retrieval condition (i.e. “a program having a title name with the same first few letters as those of the program selected” or “a program having the same series information as that of the recorded program selected by the user”). EX1001, 4:15-19, 4:23-27, 5:56-61, 5:66-6:03; EX2017, ¶58. FIG5 of the '198 Patent includes a flow diagram showing that, when analyzing “information on other programs” (a set of stored items) considered in Step S53, only the subset of programs that “meet the retrieval condition that the user has set” (Yes at Step S54) are extracted and considered “as a candidate program” (S55):



Id. at FIG5; EX2017, ¶58.

2. Extrinsic Evidence Supports Patent Owner's Construction

Extrinsic evidence further demonstrates that a POSITA would understand that the plain and ordinary meaning of a “retrieval” function is “to extract a subset of items meeting a specific condition from a set of stored items” as evidenced by the technical dictionary definition of “retrieve” and “retrieval:”

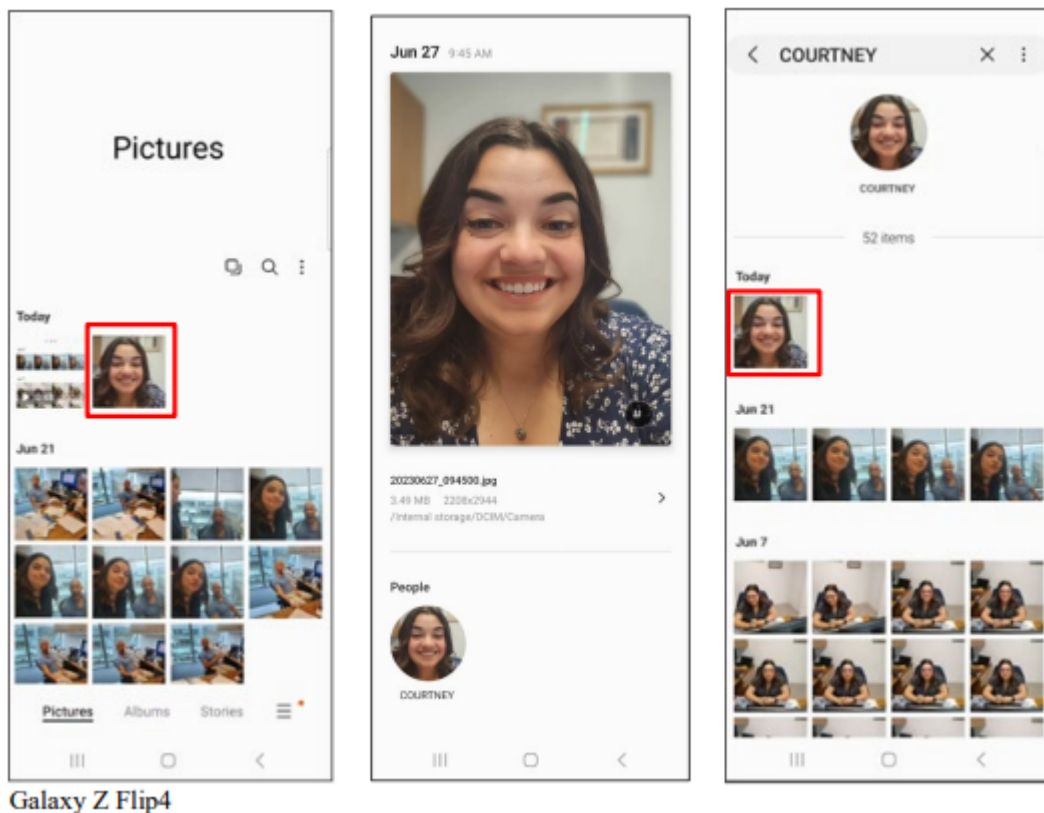
retrieve *vb.* To obtain a specific requested item or set of data by locating it and returning it to a program or to the user. Computers can retrieve information from any source of storage—disks, tapes, or memory.

Microsoft Computer Dictionary (5th ed. 2002); EX2017, ¶60.

retrieval /rɪˈtri:v(ə)/ *noun* the process of searching, locating and recovering information from a file or storage device
retrieve /rɪˈtri:v/ *verb* to extract information from a file or storage device ○
These are the records retrieved in that search.

Bloomsbury Dictionary of Computing (5th ed. 2004); EX2017, ¶60.

Further, this definition is also consistent with Maxell's Infringement Contentions, where the infringement theories specifically identifies retrieval operations, *i.e.* "after a user selects a specific recognized person . . . the control module (the Gallery's software) . . . retrieves other digital images from the device's storage." EX2017 ¶61; EX1023, 118-121 (excerpted below):



Galaxy Z Flip4
EX1023, 121; EX2017, ¶61.

3. Patent Owner's Construction Is Necessary In Light of Petitioners' Inconsistent Interpretation Of The Claims

Furthermore, the proposed construction is necessary in light of Petitioners' inconsistent reading of the claim terms. EX2017, ¶57.

Petitioners allege that “Nagaoka’s facial recognition software (the claimed control module) retrieves other digital images whose related information is the same as the selected digital image.” EX1003, ¶113; Pet., 56-57. Specifically, Petitioners allege that Nagaoka’s “Figure 6 shows the retrieval of digital images based on the similarity measure data (e.g., “similar to Momoko”) being the same:”

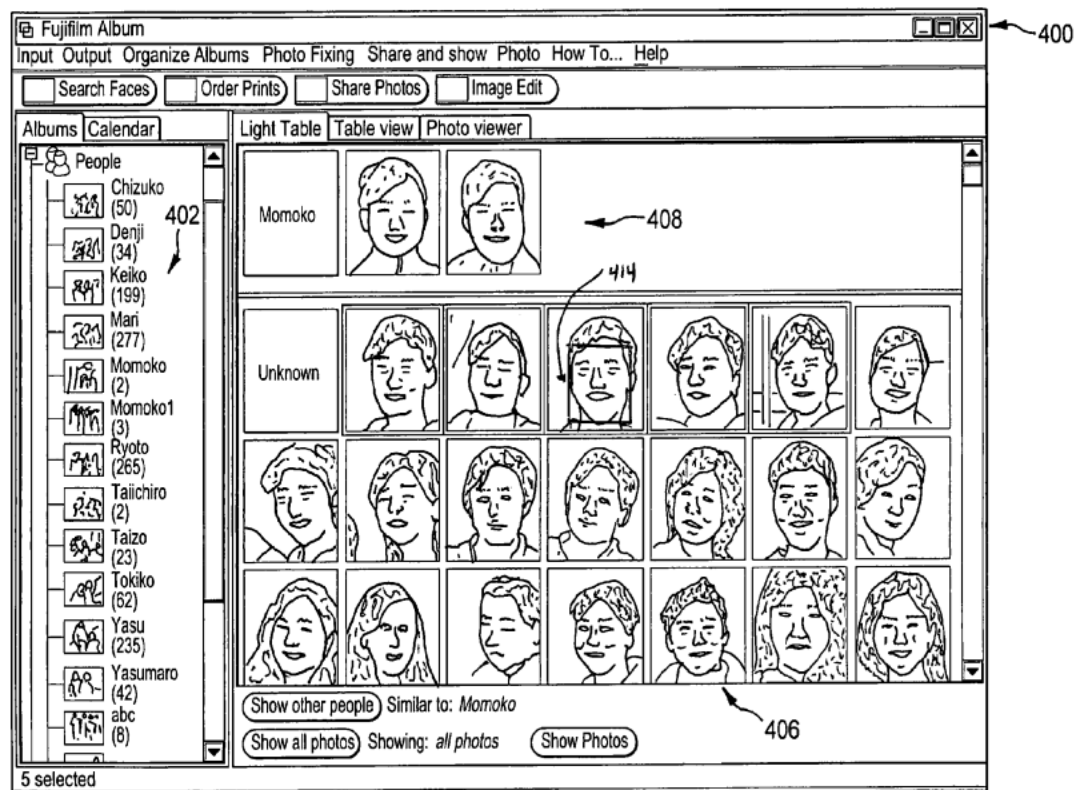


FIG.6

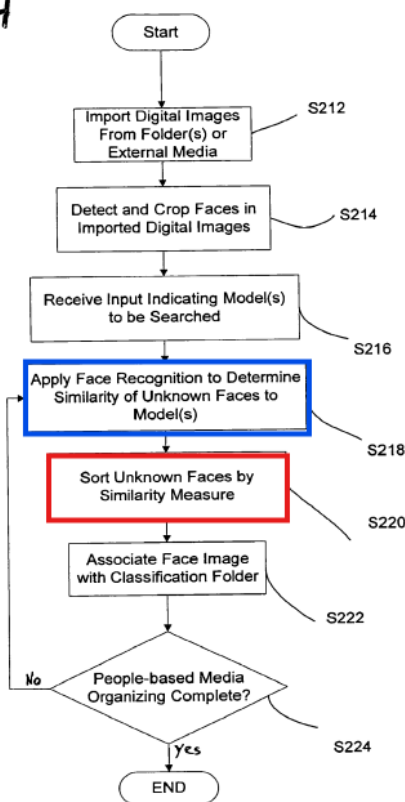
Nagaoka, FIG6; EX1003, ¶113.

Petitioners allege that Nagaoka's function of sorting a pre-identified set of digital images (unknown faces in the "unknown" display window portion 406) based on a "similarity measure" in order of "most similar to least similar" to reference images (images in the model display window portion 408) constitutes a "retrieval." Nagaoka, 5:22-25, 5:43-49; EX2017, ¶54; EX1003, ¶113. But Nagaoka is completely silent as to any "retrieve" or "retrieval" operation. EX2017, ¶55; EX1004. Petitioners' expert, Dr. Bederson, confirmed at deposition that he does not know whether Nagaoka ever uses the word "retrieve" in its specification. EX2020, 77:13-16 ("I don't know, I would have to check.");

id. at 78:5-7 (“I don’t recall specifically checking to see if Nagaoka ever uses the word retrieve.”); EX2017, ¶55.

Petitioners misconstrue the term “retrieve”/“retrieval” here, as Nagaoka makes no disclosure that its similarity measurement function includes any type of retrieval based on same related information that is “recorded in a recording medium” in a correspondence with the digital images. EX2017, ¶56. Rather, Nagaoka merely **sorts** a pre-identified set of images classified as “unknown faces” **based on similarity measure**. Nagaoka, 5:8-11 (“FIG. 6 is an exemplary graphical user interface display screen associated with displaying face images **sorted by similarity to model face images**”) (emphasis added), 5:43-48 (“the media organizing control unit 38 **sorts the unknown faces by similarity measure** (most similar to least similar) and outputs an updated ‘unknown’ display window portion 406 (FIG. 6.) showing the unknown faces in **sorted** order (S220)”) (emphasis added). Specifically, FIG. 4 of Nagaoka shows that **after** all unknown faces have been detected (Step S214) and the face recognition-based organization function determines the similarity measure of the pre-detected unknown faces (Step S214, highlighted in blue below), the unknown faces are **sorted based on similarity measure** (Step S220, highlighted in red below):

FIG. 4



Nagaoka, FIG4.; EX2017, ¶56.

Sorting a pre-determined and compiled set of images does not equate to retrieval based on **same** related information that is recorded in **said** recorded medium along with the digital images. EX2017, ¶57. Such an interpretation is completely inconsistent with the claimed requirements. *Id.* As explained above, the specification makes clear that the plain and ordinary meaning of retrieve/retrieval is to **extract** a subset of items (*i.e.*, candidate programs meeting a specific condition) from a set of stored items (*i.e.*, all programs stored in the recording medium). EX2017, ¶59. This definition is also supported by the extrinsic record. EX2017, ¶60. **A POSITA would not understand this meaning to include a sorting function which merely organizes preselected items that**

are previously compiled and displayed. EX2017, ¶59. Notably, Dr. Bederson agreed at deposition that claim limitation [1c.i] “uses the term retrieves and I don’t see it using the term sorts,” and likewise confirmed that [1c.i] “uses the word ‘retrieves,’ I don’t see it using the term organizes.” EX2020,19:22-20:7; EX2017, ¶59. Dr. Bederson further agreed that sorting and selecting are “not the same word.” EX2020, 60:23-61:7; EX2017, ¶59.

Thus, expressly construing the terms “retrieve”/“retrieval” as proposed by Patent Owner in this proceeding is consistent with the terms usage in the claims of the ’198 Patent and specification, as well as opinions expressed by Patent Owner’s expert, Dr. Balakrishnan. EX2017, ¶¶52-61.

IV. GROUND 1: PETITIONERS HAVE FAILED TO ESTABLISH THAT CLAIMS 1-4, 6, AND 9-11 ARE RENDERED OBVIOUS BY NAGAOKA

For Ground 1, Petitioners fail to demonstrate that each and every element of Claims 1-4, 6, and 9-11 are obvious based on Nagaoka. EX2017, ¶96. Specifically, the various embodiments of Nagaoka do not teach independent claim elements [1b], [1c.i], [1c.ii], [1c.iii], and [1c.iv] (and comparable elements of claim 6: [6b], [6c], [6d], [6e], [6f], and [6g]), as required for each of these claims. *Id.* Additionally, because dependent claims 2-4 and 9-11 depend from claims 1 and 6, which Petitioners have not shown to be unpatentable, Petitioners have also failed to show that claims 2-4 and 9-11 are unpatentable by Nagaoka.

A. Nagaoka Fails To Render Obvious Limitation [6pre]

Petitioners fail to show that Nagaoka renders obvious claim element [6pre]:

“A method for creating a playlist designating a reproduction order for image data reproduced from a recording medium having a plurality of image data and associated information concerning said image data that are recorded thereon.” Specifically, Petitioners merely repeat [1pre]’s arguments for [6pre] without citing to any additional arguments, evidence, or addressing differences in claim language, namely [6pre]’s disclosure of “a method” where [1pre] is directed to an “apparatus.” Pet., 64-65.

PTAB case law and statutory requirements establish that petitioners should address differences in claim language when reusing arguments across independent claims to meet their burden of proof, specifically across device and method claims. Under 35 U.S.C. § 316, the Petitioners bear the burden of proving unpatentability by a preponderance of the evidence during inter partes review. This burden includes addressing how the challenged claim is to be construed and how the claim is unpatentable, specifically identifying where “each element of the claim is found in the prior art[.]” 37 C.F.R. § 42.104(b)(3)-(4). Failure to address differences in claim language or limitations undermines the petitioner’s ability to meet this evidentiary standard. See § 42.104(b)(5) (“The Board may exclude or give no weight to the evidence where a party has failed to state its relevance or to identify specific portions of the evidence that support the challenge.”); *Cook Group Inc. v. Boston Scientific Scimed, Inc.*, Case No. IPR2017-00131, Paper 13, 14–15 (P.T.A.B. May 15, 2017) (denying institution

where Petitioners merely recited arguments across independent claims where claim language was not identical (*e.g.*, device vs. method) and Petitioners offered “no accompanying explanation”) (citing 37 C.F.R. § 42.104(b)).

For example, in *Cook Group Inc. v. Boston Scientific Scimed, Inc.*, the PTAB denied institution because the Petitioners reused arguments from one independent **device** claim to challenge another independent **method** claim without addressing slight differences in claim language or statutory category. *See* Case No. IPR2017-00131, Paper 13, 14–15 (“Claim 29 is a distinct method claim . . . and citation to an obviousness analysis for the medical device limitations in this case does not establish persuasively that [the prior art] discloses [the method]”). The PTAB emphasized that such omissions could lead to denial of institution, as the Petitioners failed to meet its burden of proof by not addressing the specific limitations of each claim. *Id.* at 15 (“A string citation purporting to incorporate arguments and evidence by reference is not a sufficient substitute for an explanation of the relevance of the asserted evidence.”).

Thus, because Petitioners merely cite to their [1pre] arguments (particularly where claim 1 is a device claim) for [6pre] (a method claim) without addressing differences in claim language between [1pre] and [6pre], Petitioners have not properly demonstrated that [6pre] is rendered obvious by Nagaoka by a preponderance of the evidence. Because Petitioners rely on this analysis of elements [1pre] and [6pre] for all of Ground 1 as well as Grounds 2-5, Petitioners

fail to establish unpatentability by a preponderance of the evidence for any claim challenged in Grounds 1-5.

B. Nagaoka Fails To Render Obvious Limitations [1b] and [6b]

Petitioners fail to show that that Nagaoka renders obvious claim elements [1b]: “a control module which selects a digital image to add in a playlist, based on one of the plurality of information concerning the digital image recorded in said recording medium” as well as [6b]: “receiving, from a user, selection of a desired image data to be registered with a playlist from said program list.” EX2017 ¶97.

Specifically, Petitioners point to no evidence that the “control module” (which Petitioners define as the “media organizing control unit 38”) “selects a digital image” based on one of **the** plurality of information concerning a digital image as required by [1b]. EX2017, ¶98; EX1003, ¶¶109-111; Pet., 52-55. Rather, Nagaoka’s “media organizing control unit 38” merely “**organize[s] and/or browse[s] digital photos**” based on **selections made by the user**. EX2017, ¶98; EX1003, ¶109 (quoting Nagaoka, 4:3-5). Organizing based on user selection is not the same as a control module selecting based on plurality of information that is stored in said recording medium along with the digital images, as required by the claim.

As a first example, Petitioners’ expert Dr. Bederson and Petitioners point to Nagaoka’s media and control organizing unit’s capability to “**organize and/or**

browse digital photos organized by date,” in which “the **user may select** dates.” EX1003, ¶¶109-111 (quoting Nagaoka, 4:3-5); Pet., 52-53. In describing this function, Nagaoka’s specification explains that “the **user may select from this category list** to organize digital photos,” in which categories may include “dates, events, places, and people.” Nagaoka, 3:61-67. Thus, it is clear that the **user**, not the control module (*i.e.*, the “media organizing control unit”) carries out the selection function. EX2017, ¶99.

Moreover, in this example the user merely **selects a category** from “a category list” rather than “a digital image” as required by [1b]. EX2017, ¶100. Dr. Bederson himself conceded at deposition that “a category list is probably not itself a digital image, it’s a category list which can contain digital images, or which is information related to digital images.” EX2020, 45:8-17; EX2017, ¶100. Recognizing the weakness of its argument, Dr. Bederson claims that a “POSITA would have further found it obvious to organize digital images based on underlying metadata, including the date the photo was taken.” *See id.*; EX1003, ¶109; Pet., 53. But that assertion does not satisfy the “control module which selects a digital image to add in a playlist” element. EX2017, ¶100. Thus, Petitioners fail to demonstrate Nagaoka’s disclosure of “a control module which selects a digital image to add in a playlist” in this first example. *Id.*

As a second example, Dr. Bederson and Petitioners claim that Nagaoka’s facial recognition software (acting as the “control module”) “selects digital

images to add in a playlist based on the related information (facial recognition).” EX1003, ¶110 (citing Nagaoka, 5:22-29); Pet., 53 (citing Nagaoka, 5:22-29). However, Petitioners once again mischaracterize Nagaoka here and thus fails to show that Nagaoka discloses “a control module which selects a digital image to add in a playlist” as required by [1b]. EX2017, ¶101.

Nagaoka’s face recognition-based organization function, which Petitioners rely on in this second example, is carried out by the “facial recognition unit 36,” which “**obtains a similarity measure** for each unknown face,” the unknown faces being pre-identified “faces from imported digital photos that have not been associated with a particular person folder,” which the “media organizing control unit 38 **sorts** (most similar to least similar) and outputs an updated ‘unknown’ display window portion 406 (FIG. 6.), showing the unknown faces in **sorted** order.” Nagaoka, 5:05-16, 5:22-25, 5:43-49 (emphasis added).

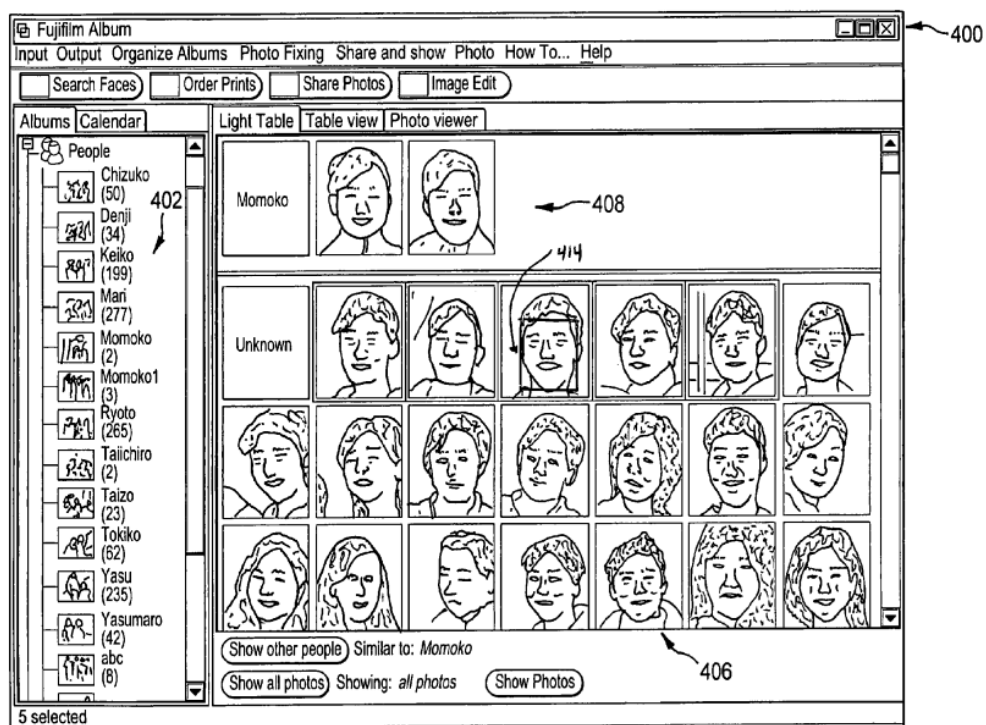


FIG.6

Nagaoka, FIG6.

Specifically, claim 1 requires that an image is selected by a control module to add into a playlist. EX2017, ¶103. This is different than what the claimed steps require from Nagaoka that is sorting based on a “similarity measure.” *Id.* Nagaoka confirms that sorting by similarity measure does not correspond to a selection function “because the media organizing control unit 38 sorts the unknown faces by similarity measure (*most similar to least similar*).” Nagaoka, 5:43-49 (emphasis added). This is an index of types, not a selection function. EX2017, ¶103. That is why even after Nagaoka completes “sorting” it:

outputs an updated unknown display window portion 406 (FIG. 6) showing the unknown faces in sorted order (S220). Using this updated display 400, the user is able to drag and drop one or more of the Sorted unknown

faces from the “unknown display window portion 406 into a model display window portion 408 (step S222). If, after the user has dragged and dropped an unknown face into the model display window portion 408, there are additional unknown faces the face recognition algorithm is repeated (S218).

Nagaoka, 5:47-56.

If Nagaoka already had “selected” images, it would not require the user to then “drag and drop” after the fact and the system to run face recognition again in Step S218. *See id.*; EX2017, ¶103. **Thus, the entire flow of Nagaoka is different.** First, the system provides a preliminary similarity information (Step S218), then it uses this to sort unknown faces, then it presents these to a user who then selects them, and then in the end additional face recognition is provided again. Nagaoka, 5:46-56. **At no point is an image selected by a control module.** *See generally id.* In fact, Nagaoka only uses the term “select” in association with user functions. *See, e.g.,* Nagaoka, 3:67 (“the user may select”), 4:03 (“the user may select”), 4:09 (“the user may select”), 4:21-31, 4:43-46 (“allows the user to select folders or individual images”), 4:62-63 (“the user can select”), 5:3-4 (“the user may select”), 5:18 (“the user may select”), 5:25-26 (“Once the user has selected”). Dr. Bederson confirmed this at deposition, testifying that sorting and selecting are “not the same word.” EX2020, 60:23-61:7.

Moreover, Petitioners do not set forth any analysis here as to how a POSITA would find it obvious to alter Nagaoka’s functionality to render obvious this limitation, and thus do not meet their burden of proof. Pet., 52-53. The output

and purpose of Nagaoka's step S220 is fundamentally different from the selection function contemplated by the '198 patent. EX2017, ¶104. Nagaoka's step S220 sorts all unknown faces and displays them in a ranked order for user review — no faces are excluded or selected as specific candidates. Nagaoka, 5:43-49 (describing Step S220). Any attempt to modify Nagaoka's step S220 to arrive at the “select[ion] of a digital image” limitation of claim 1 would not be a simple substitution or minor adjustment. EX2017, ¶104.

It would require a fundamental restructuring of Nagaoka's entire operational flow, for several independent reasons. *Id.* Nagaoka's workflow is specifically and purposefully designed around the iterative refinement of a similarity gradient. *Id.* After the user drags and drops one or more sorted unknown faces from the “unknown” display window portion into the model display window portion at step S222, “there are additional unknown faces (S224), the face recognition algorithm is repeated (S218).” Nagaoka, 5:52-55. This iterative loop — applying face recognition, sorting by similarity, receiving user input of a selection, and repeating — is the core of Nagaoka's system. EX2017, ¶104. Replacing the similarity-based sorting with a selection of a single digital image would require a complete redesign of the this iterative refinement loop entirely.

Further, Nagaoka's system requires continuous user judgment to classify faces precisely because the similarity measure does not, and cannot, definitively establish identity. The user must visually inspect sorted faces and manually drag

and drop those that the user believes belong to a given person. Nagaoka, 5:46-56. Replacing Nagaoka's similarity-dependent user judgment workflow with a selection function based on same related information would require eliminating the user's role in selecting items and fundamentally changing the nature of the system's output from a sorted display to a filtered selection result. EX2017, ¶105. Claim 1, by contrast, involves a control module that selects specific digital images and presents them “as candidates for adding in said playlist,” excluding non-matching images from the candidate set. EX1001, Claim 1. Converting Nagaoka's inclusive, ranked display into an exclusive, filtered candidate selection would alter the fundamental character of Nagaoka's output. EX2017, ¶105.

Furthermore, Petitioner's characterization of Nagaoka's model display window portion 408 as a “playlist” is unsupported. Nagaoka never uses the word “playlist” anywhere in its specification—a fact Dr. Bederson confirmed at deposition, testifying “I don't recall it doing so.” EX2020, at 63:3-6; EX2017, ¶106. Rather, display window portion 408 functions as a comparison model for the face recognition algorithm: the user drags and drops unknown faces into 408 so that the facial recognition unit 36 can “determine similarity of unknown faces to the selected model.” Nagaoka, 5:25-29. Dr. Bederson acknowledged that dragging images into 408 “does perform facial recognition” and only offered an alternative “obviousness opinion” that “if 408 is determined to not be a playlist it would be obvious to modify 408 so it could be a playlist.” EX2020, 84:2-20;

EX2017, ¶106. This concession reveals that Petitioner's own expert recognizes 408 is not actually disclosed as a playlist in Nagaoka, but rather requires an additional modification—one for which Petitioners provide no supporting motivation or rationale. EX2017, ¶106. Thus, Petitioner's reliance on 408 as the claimed "playlist" in limitation [1b] fails.

With regards to [6b] in view of Nagaoka, Petitioners merely cite to [1b]'s arguments without citing to any additional arguments, evidence, or addressing differences in claim language, namely [6b]'s disclosure of "associated information" or "a program list." Pet., 65. As explained above in Section IV.A, PTAB case law and statutory requirements establish that petitioners should address differences in claim language when reusing arguments across independent claims to meet their burden of proof.

Thus, because Petitioners merely cite to their [1b] arguments (particularly where claim 1 is a device claim) for [6b] (a method claim) without addressing differences in claim language between [1b] and [6b], and in addition to the reasons explained above as to why [1b] is not rendered obvious by Nagaoka, Petitioners have not properly demonstrated that [6b] is rendered obvious by Nagaoka by a preponderance of the evidence. EX2017, ¶107.

As such, Petitioners have not shown by a preponderance of the evidence that Nagaoka renders obvious elements [1b] and [6b] of the '198 Patent for all of Grounds 1-5, failing to establish unpatentability by a preponderance of the

evidence for any claim challenged in Grounds 1-5.

C. Nagaoka Fails To Render Obvious Limitations [1c.i], [6c], and [6d]

Petitioners fail to show that that Nagaoka renders obvious claim elements [1c.i]: “wherein for a selected digital image selected by the user, said control module; retrieves other digital images whose related information is the same as the selected digital image” as well as [6c]: “retrieving an image data associated with associated information selected, from associated information concerning said selected image data,” and [6d]: “retrieving other image data whose related information is the same as the desired image data selected by the user, the other digital images being candidates for adding in said playlist. EX2017, ¶109.

Specifically, Petitioners fail to show that Nagaoka’s “control module” (which they define as the “media organizing control unit 38 and/or Nagaoka’s facial recognition software”) “retrieves other digital images whose related information is the **same** as the selected digital image” recorded in **said** recorded medium, as required by [1c.i]. EX2017, ¶110; EX1003, ¶¶112-114; Pet., 55-57. Rather, Nagaoka’s “media organizing control unit 38 and/or facial recognition software” merely “sorts the unknown faces by **similarity measure**.” Nagaoka, 5:05-11, 5:25-29, 5:43-49 (emphasis added). As explained above in Section III.a and below, **sorting** image data is not the same as **retrieving** image data as the term “retrieve” would be understood by a POSITA and “similarity measure” is by definition different from “same” related information. EX2017, ¶111. Further,

the Petition provides no disclosure in Nagaoka of the similarity measure being recorded in said recording medium with a correspondence to stored images, as the claim requires recording “a plurality of digital images **and** a plurality of related information concerning said digital images recorded in a recording medium.” Moreover, Petitioners fail to demonstrate how a POSITA would find it obvious to modify Nagaoka to disclose such a retrieval function under the proper construction. *Id.*

Specifically, the '198 Patent's claim requires that retrieval needs to occur for other digital images whose related information is the **same**. Nagaoka confirms that similarity measure does not correspond to the same related information “because the media organizing control unit 38 sorts the unknown faces by similarity measure (*most similar to least similar*).” *Id.*; Nagaoka, 5:43-49 (emphasis added). This is an index of types, not retrieval of media containing the “same” information. EX2017, ¶112. That is why **even** after Nagaoka completes “sorting” it:

outputs an updated unknown display window portion 406 (FIG. 6) showing **the unknown faces in sorted order** (S220). Using this updated display 400, **the user is able to drag and drop** one or more of the Sorted **unknown faces** from the “unknown display window portion 406 into a model display window portion 408 (step S222). If, **after the user** has dragged and dropped an unknown face into the model display window portion 408, there are additional unknown faces the face recognition algorithm is repeated (S218).

Nagaoka, 5:46-56 (emphasis added).

If Nagaoka already had “retrieved” images based on the **same** related information, these images won’t be “unknown” and it would not require the user to then “drag and drop” after the fact and the system to run face recognition **again** in Step S218. *Id.* The entire flow of Nagaoka is different. EX2017, ¶113. First, the system provides a preliminary similarity information (Step S218), then it uses this to sort unknown faces, then it presents these to a user who then selects them, and then in the end additional face recognition is provided again. Nagaoka, 5:46-56. At no point is the **same related information** used to retrieve anything from memory. EX2017, ¶113.

Moreover, the output and purpose of Nagaoka's step S220 is fundamentally different from the retrieval contemplated by the '198 Patent. *Id.* Nagaoka's step S220 sorts all unknown faces and displays them in a ranked order for user review — no faces are excluded or retrieved as specific candidates. Nagaoka, 5:43-49 (describing Step S220). Any attempt to modify Nagaoka's step S220 to arrive at the “retrieves other digital images whose related information is the same” limitation of claim 1 of the '198 Patent would not be a simple substitution or minor adjustment. EX2017, ¶114. It would require a fundamental restructuring of Nagaoka's entire operational flow, for several independent reasons. *Id.* Nagaoka's workflow is specifically and purposefully designed around the iterative refinement of a similarity gradient. *Id.* After the user drags and drops one or more sorted unknown faces from the “unknown” display window portion into the

model display window portion at step S222, “there are additional unknown faces (S224), the face recognition algorithm is repeated (S218).” Nagaoka, 5:52-55. This iterative loop — applying face recognition, sorting by similarity, receiving user input, and repeating — is the core of Nagaoka's system.

As noted above with respect to the “control module” claim element and incorporated herein by reference, replacing the similarity-based sorting with a retrieval of images with the “same related information” would require a complete redesign of this iterative refinement loop entirely. EX2017 ¶114. Replacing Nagaoka's similarity-dependent user judgment workflow with a retrieval based on same related information would require eliminating the user's role in classifying items and fundamentally changing the nature of the system's output from a sorted display to a filtered retrieval result. EX2017 ¶115. *See supra* IV.B. The '198 patent's claim element, by contrast, involves a retrieval that selects only those digital images meeting the “same” criterion and presents them “as candidates for adding in said playlist,” excluding non-matching images from the candidate set. *See* '198 Patent at Claim 1. This is not rendered obvious by Nagaoka's disclosure. *See supra* IV.B.

Thus, Nagaoka's sorting functionality does not “retriev[e] digital images based on the similarity measure data” as Petitioners and Dr. Bederson argues without ever explaining how a similarity index can correspond to same information that is recorded. *See* Section III.a. EX2017, ¶116.

Thus, the face recognition-based organization function that Petitioners and Dr. Bederson rely on for this limitation does not disclose [1c.i] “wherein for a selected digital image selected by the user, said control module; retrieves other digital images whose related information is the same as the selected digital image.” EX2017, ¶117.

With regards to [6c] and [6d] in view of Nagaoka, Petitioners merely cite to [1c.i]’s arguments without citing to any additional arguments, evidence, or addressing differences in claim language, namely [6c] and [6d]’s disclosure of “associated information.” EX1003, ¶¶126-127; Pet., 65. As explained above in Section IV.A, PTAB case law and statutory requirements establish that petitioners should address differences in claim language when reusing arguments across independent claims to meet their burden of proof.

Thus, because Petitioners merely cite to their [1c.i] arguments for elements [6c] and [6d] without addressing differences in claim language between these limitations, and in addition to the reasons stated above with respect to Nagaoka’s lack of disclosure of a retrieval function, Petitioners have not properly demonstrated that [6c] and [6d] are rendered obvious by Nagaoka by a preponderance of the evidence. EX2017, ¶119.

As such, Petitioners have not shown by a preponderance of the evidence that Nagaoka renders obvious element elements [1c.i], [6c], and [6d] of the ’198 Patent. EX2017, ¶120. Because Petitioners rely on this analysis of elements [1c.i],

[6c], and [6d] for Grounds 1-5, Petitioners fail to establish unpatentability by a preponderance of the evidence for any claim challenged in Grounds 1-5. *Id.*

D. Nagaoka Fails To Render Obvious Limitations [1c.ii] and [6e]

Petitioners fail to show that that Nagaoka renders obvious claim elements [1c.ii]: “outputs a list identifying the other digital images retrieved based on their related information to select another digital image to add in said playlist when said another digital image is selected from other digital images as the candidates by the user” as well as [6e]: “listing information identifying said other image data to select another digital image to add in said playlist when said another digital image is selected from other digital images as the candidates by the user.” EX2017, ¶121.

As set forth above in Section IV.C, Nagaoka does not disclose “retriev[ing] other digital images whose related information is the same as the selected digital image.” In fact, Nagaoka itself confirms that, even when another digital image is selected by the user, merely “**the arrangement of unknown faces** in display window portion 406 is **updated** as the user drags and drops unknown faces into the model display window portion 408.” *Id.*; Nagaoka, 5:62-67. Thus, the Petition’s deficiency in regard to elements [1c.i], [6c], and [6d] renders limitation [1c.ii] undisclosed by Nagaoka, as Nagaoka does not disclose “the other digital images retrieved based on their related information.” EX2017, ¶122.

With regards to [6e] in view of Nagaoka, Petitioners merely repeat [1c.ii]’s

arguments without citing to any additional arguments, evidence, or addressing differences in claim language. EX1003, ¶128; Pet. 65. As explained above in Section IV.A, PTAB case law and statutory requirements establish that petitioners should address differences in claim language when reusing arguments across independent claims to meet their burden of proof.

Thus, because Petitioners merely cite to their [1c.ii] arguments for elements [6e] without addressing differences in claim language between these limitations, and in addition to the reasons stated above with respect to Nagaoka's failure to disclose "retrieving" of "said other image data" as required by [6d], Petitioners have not properly demonstrated that [6e] is rendered obvious by Nagaoka by a preponderance of the evidence. EX2017, ¶123.

As such, Petitioners have not shown by a preponderance of the evidence that Nagaoka renders obvious element elements [1c.ii] and [6e] of the '198 Patent. EX2017, ¶121. Because Petitioners rely on this analysis of elements [1c.ii] and [6e] for Grounds 1-5, Petitioners fail to establish unpatentability by a preponderance of the evidence for any claim challenged in Grounds 1-5. EX2017, ¶124.

E. Nagaoka Fails To Render Obvious Limitations [1c.iii], [1c.iv], [6f], and [6g]

Petitioners fail to show that that Nagaoka renders obvious claim elements [1c.iii] and [1c.iv], specifically output of a "said list identifying the other digital images," as well as claim elements [6f] and [6g], specifically "said list identifying

the other digital image data.” EX2017, ¶125.

As set forth above in Section IV.C, Nagaoka does not disclose “retriev[ing] other digital images whose related information is the same as the selected digital image.” EX2017, ¶126; *see supra* Section IV.C. Thus, the Petition’s deficiency in regard to elements [1c.i], [6c], and [6d] renders limitations [1c.iii] and [1c.iv] undisclosed by Nagaoka, as Nagaoka does not disclose “the other digital images,” which are “retrieved based on their related information.” *Id.*

With regards to [6f] and [6g] in view of Nagaoka, Petitioners merely repeat their arguments for claim elements [1c.iii] and [1c.iv] without citing to any additional arguments, evidence, or addressing differences in claim language. EX1003, ¶¶129-130; Pet. Br. 65-66. As explained above in Section IV.A, PTAB case law and statutory requirements establish that petitioners should address differences in claim language when reusing arguments across independent claims to meet their burden of proof.

Thus, because Petitioners merely cite to their [1c.iii] and [1c.iv] arguments for elements [6f] and [6g] without addressing differences in claim language between these limitations, and in addition to the reasons stated above with respect to Nagaoka’s failure to disclose “retrieving” of “said other image data” as required by [6d], Petitioners have not properly demonstrated that [6f] and [6g] are disclosed by Nagaoka by a preponderance of the evidence. EX2017, ¶127.

As such, Petitioners have not shown by a preponderance of the evidence

that Nagaoka renders obvious element elements [1c.iii], [1c.iv], [6f], and [6g] of the '198 Patent. EX2017, ¶128. Because Petitioners rely on this analysis of elements [1c.iii], [1c.iv], [6f], and [6g] for Grounds 1-5, Petitioners fail to establish unpatentability by a preponderance of the evidence for any claim challenged in Grounds 1-5. *Id.*

F. Nagaoka Fails To Render Obvious Claims 2-4 and 10-11

Petitioners fail to show that that Nagaoka renders obvious claims 2-4 and 10-11. EX2017, ¶129.

As set forth above in Sections IV.A-IV.E, Nagaoka does not disclose key elements of independent claims 1 and 6, specifically a “retrieval” function within its facial recognition capabilities. EX2017, ¶130. According to the plain and ordinary meaning of the term “retrieve” set forth in Section III.a, a POSITA would understand that Nagaoka’s “face recognition-based organization function” merely “sorts” digital images based on a calculated similarity index as opposed to “retrieving” digital images based on same related information recorded in the recorded medium. *Id.* Thus, the Petition’s deficiencies, specifically in regard to the retrieval function of independent claims 1 and 6, render corresponding dependent claims 2-4 and 9-11 undisclosed by Nagaoka. *Id.*

With regards to claims 3, 10, and 11, Petitioners merely repeat the same arguments made for claim 2 arguments without citing to any additional arguments, evidence, or addressing differences in claim language. EX1003,

¶¶121, 132-133; Pet., 63-64, 66. As explained above in Section IV.A, PTAB case law and statutory requirements establish that petitioners should address differences in claim language when reusing arguments across independent claims to meet their burden of proof. Thus, Petitioners have failed to meet their burden of proof for claims 3, 10, and 11 by merely reapplying their claim 2 arguments without addressing any differences in claim language. EX2017, ¶131.

For this reason and reasons stated above with respect to Nagaoka's failure to render obvious "retrieving" of "said other image data" based on same related information that is recorded in recording medium while being associated with images, as required by independent claim 6, Petitioners have not properly demonstrated that dependent claims 3, 10, and 11 are disclosed by Nagaoka by a preponderance of the evidence. EX2017, ¶131.

Therefore, Petitioners fail to establish unpatentability by a preponderance of the evidence for claims 2-4 and 9-11. EX2017, ¶132.

V. GROUND 2: PETITIONERS HAVE FAILED TO ESTABLISH THAT CLAIMS 5 AND 12 ARE RENDERED OBVIOUS BY THE COMBINATION OF NAGAOKA AND BENYAMIN

Ground 2 challenges claims 5 and 12, which depend from claims 1 and 6. Petitioners do not rely on Benjamin to cure any of the deficiencies of Nagaoka with respect to claims 1 and 6. As such, due to at least the reasons set forth above with respect to Ground 1, Petitioners have similarly failed to establish that claims 5 and 12 are rendered obvious by the combination of Nagaoka and Benjamin.

EX2017, ¶133.

VI. GROUND 3: PETITIONERS HAVE FAILED TO ESTABLISH THAT CLAIMS 7 AND 13 ARE RENDERED OBVIOUS BY THE COMBINATION OF NAGAOKA AND NARA

Ground 3 challenges claim 7, which relies on the same faulty arguments grounded in Nagaoka alone for claim 6, from which claim 7 depends, distinguished above in Sections IV.A-IV.E. A combination of Nagaoka and Nara does not change the result and thus, Petitioners fail to show claim 7 is disclosed by this combination for this reason alone. EX2017, ¶¶148-149. Additionally, Petitioners and Dr. Bederson attempt to use the Nara reference to fill in the various gaps of the teachings of Nagaoka with regard to the claims of the '198 Patent, particularly with regards to Nagaoka's missing dubbing list creating method. Pet., 69-75; EX1003, ¶¶141-155. However, Petitioners fail to show that Nagaoka in combination with Nara renders obvious claim 13: A dubbing list-creating method for selecting an image data in dubbing from a recording medium having a plurality of image data and associated information thereof that are recorded thereon to another recording medium. EX2017, ¶150. For these reasons, Ground 3 fails to show unpatentability by a preponderance of the evidence. EX2017, ¶142.

A. Petitioners fail to establish that a POSITA would be motivated to combine Nagaoka and Nara

A POSITA wouldn't be motivated to combine Nagaoka with Nara because both references are non-analogous art, specifically because they are two different

systems directed at solving different problems. EX2017, ¶144. The problem solved by Nara is unrelated to the technical solutions addressed by Nagaoka. *Id.* Nagaoka relates to “**organizing digital media**, particularly digital photos, **using face recognition**,” and does not disclose more than one medium. EX1004, Abstract (emphasis added). On the other hand, Nara relates to “a digital broadcast receiver capable of reducing time and labor **to back-up contents recorded on one recording medium to another recording medium.**” EX1006, Abstract. Critically, Dr. Bederson confirmed at deposition that Nara does not disclose face recognition technology, testifying: “sitting here right now, I don’t see it specifically describing an algorithm for face recognition.” EX2020, 107:15-108:4; EX2017, ¶144. Nara does not relate to or mention organization of digital information using face recognition at all. *See generally* EX1006. Thus, a POSITA would not be motivated to combine the backup function between mediums from Nara with Nagaoka’s facial recognition organizational system, because Nagaoka is directed to “organizing digital media, particularly digital photos, using face recognition,” and is not directed to the solution of “reducing time and labor to back-up contents recorded on one recording medium to another recording medium.” *Id.*

Moreover, Dr. Bederson does not explain how a POSITA would modify Nagaoka’s facial recognition system to integrate Nara’s back-up capabilities from one medium to another, leaving a POSITA to engage in an uncertain and

speculative process. EX2017, ¶145; EX1003, ¶¶141-145; Pet., 69-71. When pressed at deposition to identify any specific disclosure in Nagaoka that suggests or teaches motivation for the combination, Dr. Bederson could not point to any express teaching, instead relying on the general proposition that “Nagaoka provides a general system including the ability to support digital images into lists and managing the content using digital recorders and a person of skill in the art would be motivated to use that system and improve it.” EX2020, 116:5-17; EX2017, ¶145. Thus, Petitioners and Dr. Bederson fail to show how a POSITA would be motivated to combine and/or modify Nagaoka and Nara because they are directed to solving different problems using different methods. EX2017, ¶145.

B. The Combination Of Nagaoka and Nara Fails To Render Obvious Claim 13

Petitioners fail to show that Nagaoka in combination with Nara discloses claim 13: A dubbing list-creating method for selecting an image data in dubbing from a recording medium having a plurality of image data and associated information thereof that are recorded thereon to another recording medium. EX2017, ¶150. As explained above in Section VI.A, a POSITA would not be motivated to combine Nagaoka with Nara. For this reason alone, Ground 3 fails.

Moreover, because Petitioners and Dr. Bederson fail to show that claim 1 and 6 are met by Nagaoka as explained in Sections IV.A-IV.E, and merely cite to these same arguments for claim 13 without citing to any additional arguments,

evidence, or addressing differences in claim language, Petitioners fail to show that claim 13 is met. EX2017, ¶152; EX1003 ¶¶149-155; Pet., 74-75. As explained above in Section IV.A, PTAB case law and statutory requirements establish that petitioners should address differences in claim language when reusing arguments across independent claims (*i.e.*, method vs. device claims) to meet their burden of proof.

Thus, because Petitioners merely cite to their claim 1 and 6 arguments, which rely entirely on their claim 1 arguments (particularly where claim 1 is a device claim) for claim 13 (a method claim) without addressing differences in claim language between any of these limitations, and in addition to the reasons explained above in Sections IV.A-IV.E, Petitioners have not properly demonstrated that claim 13 is rendered obvious by Nagaoka by a preponderance of the evidence. EX2017, ¶152.

As such, Petitioners failed to show by a preponderance of evidence that Nagaoka in view of Nara renders obvious claim 13 for at least the reasons stated above. EX2017, ¶153. Because Petitioners rely on this analysis of claim 13 for all of Ground 4 as well as claim 16 in ground 5, Petitioners fail to establish unpatentability by a preponderance of the evidence for any claim challenged in Ground 4, and claim 16 challenged in Ground 6.

VII. GROUND 4: PETITIONERS HAVE FAILED TO ESTABLISH THAT CLAIMS 14-15 ARE RENDERED OBVIOUS BY NAGAOKA IN VIEW OF NARA, BENYAMIN, AND IMADA

Ground 4 challenges claims 14 and 15, which depend from claim 13. Petitioners do not rely on Benjamin or Imada to cure any of the deficiencies of Nagaoka in view of Nara with respect to claim 13. As such, due to at least the reasons set forth above with respect to Ground 3, Petitioners have similarly failed to establish that claims 14 and 15 are rendered obvious by the combination of Nagaoka in view of Nara, Benjamin, and Imada. EX2017, ¶155.

Moreover, the four-reference combination of Ground 4 presents a textbook case of impermissible hindsight reconstruction. EX2017, ¶155. Petitioners ask the Board to combine Nagaoka (organizing photos by face recognition), Nara (backing up broadcast content between media), Benjamin (managing audio playlists in an automobile), and Imada (copying audio-visual content from an HD to a DVD)—four non analogous references directed to four fundamentally different problems. EX2017, ¶155. The proposed combination of all four references requires a POSITA to: (1) start with Imada's HD-to-DVD backup system with bit rate re-encoding; (2) incorporate from Benjamin a criteria-based playlist creation methodology that operates in an entirely different manner than the '198 Patent's user-selection-triggered retrieval; (3) import from Nagaoka a face recognition-based photo organizing paradigm that has no logical application to recorded broadcast programs; and (4) add from Nara a metadata-based content

extraction system designed for a completely different purpose (backup, not playlist creation). EX2017, ¶155. No person of ordinary skill in the art would have had any reason to look to these four disparate references—spanning face recognition, in-vehicle music servers, HD-to-DVD backup recorders, and digital broadcast tape backup systems—and understand how to combine their teachings to arrive at the specific playlist-creating apparatus of the '198 Patent. *Id.* The proposed combination is the product of impermissible hindsight, using the '198 Patent itself as a roadmap to selectively pick and choose elements from unrelated references that, taken together, do not teach or suggest the claimed invention. *Id.*

For example, at deposition, Dr. Bederson was confronted with this fact and could not deny it, conceding only that the references “address some of the same issues” and “also address different problems.” EX2020, 125:2-9; EX2017, ¶155. When asked to identify what single problem a POSITA would have been trying to solve that would lead to combining all four references, Dr. Bederson could not articulate one, instead deflecting that “having a single problem that all the pieces of prior art solve is not on the list of criteria that was provided to me.” EX2020, 128:6-21; EX2017, ¶155. Dr. Bederson further admitted that no single reference among the four suggests combining with the others, asserting only that there is no legal “requirement” that one reference must motivate the inclusion of others. EX2020, 127:10-128:5. This testimony reveals that the only thread connecting these four disparate references is the claims of the '198 Patent

themselves—precisely the type of hindsight reasoning that KSR and its progeny prohibit.

VIII. GROUND 5: PETITIONERS HAVE FAILED TO ESTABLISH THAT CLAIMS 8 AND 16 ARE RENDERED OBVIOUS BY NAGAOKA IN VIEW OF NARA AND BENYAMIN

Ground 5 challenges claims 8 and 16, which depend from claims 6 and 13. Petitioners do not rely on Nara or Benyamin to cure any of the deficiencies of Nagaoka with respect to claim 6, nor does Petitioners rely on Benyamin to cure any of the deficiencies of Nagaoka with respect to claim 13. As such, due to at least the reasons set forth above with respect to Grounds 1 and 3, Petitioners have similarly failed to establish that claims 8 and 16 are rendered obvious by the combination of Nagaoka in view of Nara and Benyamin. EX2017, ¶¶168-172.

Additionally, for the same reasons explained above in Ground 4, the multi-reference combination of Ground 5 suffers from the same hindsight deficiency. EX2017, ¶166. Petitioners again ask the Board to combine Nagaoka (organizing photos by face recognition), Nara (backing up broadcast content between media), and Benyamin (managing audio playlists in an automobile). EX2017, ¶165. The proposed combination of these three references requires a person of ordinary skill in the art to: (1) start with Benyamin, a criteria-based playlist creation methodology that operates in an entirely different manner than the '198 Patent's user-selection-triggered retrieval; (3) import from Nagaoka a face recognition-based photo organizing paradigm that has no logical application to Nara's

recorded broadcast programs; and (4) add from Nara a metadata-based content extraction system designed for a completely different purpose (backup, not playlist creation). EX2017, ¶165. No person of ordinary skill in the art would have had any reason to look to these four disparate references—spanning face recognition, in-vehicle music servers, and digital broadcast tape backup systems—and understand how to combine their teachings to arrive at the specific playlist-creating apparatus of the '198 Patent. *Id.* The proposed combination is the product of impermissible hindsight, using the '198 Patent itself as a roadmap to selectively pick and choose elements from unrelated references that, taken together, do not teach or suggest the claimed invention. *Id.*

In fact, Dr. Bederson's deposition testimony confirms that the references are directed to different problems—Nagaoka to facial recognition-based photo organization, Nara to broadcast backup between media, and Benjamin to audio playlist management in automobiles. EX2020 at 125:2-127:9; EX2017, ¶166. Dr. Bederson could not identify any express teaching, suggestion, or motivation in Nagaoka's disclosure that would lead a POSITA to seek out and combine the dubbing functionality of Nara, admitting only that "Nagaoka provides a general system" for managing digital media. EX2020, 116:5-17; EX2017, ¶166. Similarly, with respect to Benjamin, Dr. Bederson conceded he did not recall Benjamin "specifically describing an algorithm for face recognition technology" and could not explain how a POSITA would integrate Benjamin's audio-focused

system into Nagaoka's face recognition system. EX2020, 99:13-20; EX2017, ¶166. These concessions confirm that Petitioner's three-reference combination for Ground 5 is similarly the product of hindsight, lacking any articulable rationale apart from the claims of the '198 Patent.

IX. GROUND 6: PETITIONERS HAVE FAILED TO ESTABLISH THAT CLAIMS 1-16 ARE RENDERED OBVIOUS OVER WATANABE IN VIEW OF LOONEY, PLATT, AND KAPLAN

Petitioners have failed to show by a preponderance of evidence that the Watanabe in combination with Looney, Platt, and Kaplan teaches each and every element of claims 1-16. EX2017, ¶173. Petitioners use impermissible hindsight to combine these four references. EX2017, ¶173. Watanabe organizes content by music-specific metadata (artist, album, genre) with no content analysis or face recognition. *See generally* Watanabe. Looney organizes content by user-defined or service-provider-defined categories (music style, dance type, speed, energy) with no face recognition or visual content analysis. *See generally* Looney. Platt organizes content by computing similarity metrics from music-characterizing feature vectors using machine-learned lookup tables—again with no face recognition functionality. *See generally* Platt. Kaplan organizes content into user-created containers with thumbnail representations and discloses biometric/facial recognition as a search tool for locating individuals' images, but does not disclose playlist creation or retrieval of candidate programs based on shared recording attributes. *See generally* Kaplan. The proposed combination of Watanabe with

Looney, Platt, and Kaplan thus requires a person of ordinary skill in the art to: (1) start with Watanabe's music duplication management system; (2) incorporate from Looney a category-button-driven search paradigm that operates on music-specific categories entirely unlike broadcast recording metadata; (3) import from Platt a multi-seed weighted similarity computation system based on music feature vectors; and (4) add from Kaplan a manual thumbnail-selection playlist feature with an unrelated biometric search capability. EX2017, ¶173. None of these references teaches or suggests the specific mechanism of claims 1 and 13—the automatic retrieval of other digital images whose related information is the same as a user-selected digital image, the output of a list identifying those retrieved images as candidates for playlist addition, and the display of the digital images, related information, candidate list, and playlist in a same display. EX2017, ¶173. The proposed combination can only be achieved through impermissible hindsight reconstruction, using the '198 Patent itself as a roadmap to selectively extract and recombine disparate teachings from four unrelated multimedia management systems that, taken together, do not arrive at the claimed invention. *Id.*

Even when combined, Watanabe in combination with Looney, Platt, and Kaplan does not teach elements [1pre], [1a], [1b], [1c.i], [1c.ii], [1c.iii], and [1c.iv] of Claim 1 as well as Claims 2-16, for the reasons below.

A. The Combination of Watanabe and Looney Fails To Render Obvious Limitations [1pre], [1a], [1b], [6pre], [6a], and [13a]

Petitioners fail to show that that Watanabe in combination with Looney

renders obvious claim elements [1pre], [1a], [1b], [6pre], [6a], [6b], and [13a], which all disclose “digital image” or “image data.” EX2017, ¶187.

Petitioners claim that Watanabe discloses “digital images” and “image data” as required by independent claims 1, 6, and 13. Pet., 80-83, 91-92, 95-97 (citing EX1003, ¶¶170-172). In so doing, Dr. Bederson admits that, in the absence of Watanabe’s disclosure of digital image data in its disclosed embodiments, Watanabe’s embodiments “may include image data.” EX1003, ¶170 (quoting EX1008 [0047]).

Critically, Watanabe’s disclosed embodiments, which Petitioners rely on for the above listed limitations, do not include digital images or image data. *See generally* EX1008. Rather, Watanabe’s described embodiments, and its functionalities which Petitioners rely on for all three independent claims, are directed towards audio data. EX2017, ¶189; EX1008, [0167] (“Note that, in the above embodiment, **audio data** is recorded and reproduced”) (emphasis added).

For example, Petitioners and Dr. Bederson claim that Watanabe’s “library list display section 87” and icon demonstrates the presence of digital images. *See* Pet., 79-81 (citing EX1008, [0115]-[0019]). Petitioners reuse this same argument as applied to the “image data” disclosed by independent claims 6 and 13. Pet., 91, 95-96. However, there is no such disclosure of “digital images” or “image data” in Watanabe or Figure 13—*e.g.*, there are no thumbnails or pictures of individuals or places. EX1008, FIG13; EX 2016, ¶189. Tellingly, when asked at deposition

to identify digital images in Watanabe's Figure 13, Dr. Bederson pointed only to the small music note icons displayed in box 87, testifying that "those music notes are digital images." EX2020 at 132:14-23; EX2017, ¶189. Dr. Bederson admitted he was relying on Watanabe's specification calling these music notes "icons" in paragraph 119, and offered only that "Icons I think generally are digital images." EX2020, 133:24-134:3-9; EX 2016, ¶189. When pressed further, Dr. Bederson conceded he could not define the full scope of what an icon is, stating: "I don't have a construction or definition to give you which is why I use the word typically." EX2020, 136:4-14; EX 2016, ¶189. As shown in the excerpt below, the SD library manager of Watanabe does not disclose any "digital images" or "image data:"

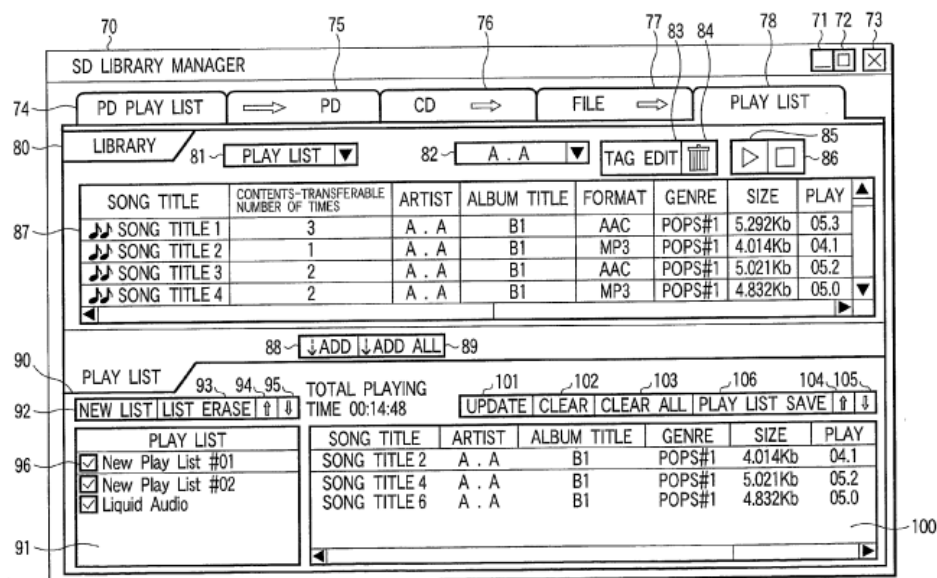


FIG. 13

Id. at FIG13; EX2017, ¶189.

Moreover, it would not have been obvious for a POSITA to incorporate digital image data into Watanabe's disclosed functionalities. EX2017, ¶190.

Watanabe's system is designed primarily for music content—audio CDs imported via a CD drive, MP3 and WAV files imported from folders on a hard disk, and encrypted music data received via electronic music distribution over the Internet. *See generally* Watanabe. This is an entirely different category of metadata reflecting entirely different content domains from the digital image data of the '198 Patent, and there is no teaching in Watanabe that would suggest how music-library metadata (artist, album, genre) could be adapted to or replaced with image metadata as required by the '198 Patent. EX2017, ¶190. Moreover, the modification required to transform Watanabe's system into the '198 Patent's system would go far beyond merely substituting image data for audio data; it would require fundamentally redesigning the system's entire approach to content organization, replacing manual library browsing with automatic candidate retrieval based on shared recording metadata, and introducing an entirely new class of sub-information (time zone, channel, series information) that has no analog in Watanabe's music-centric metadata schema. *Id.*

In the absence of Petitioners evidence or argument regarding how Watanabe's library list display section 87 or icons disclose "digital image" or "image data," and failure to point to any disclosure of components that can record, display, select, and/or manipulate "digital images" or "image data" in other ways as claimed, Petitioners and Dr. Bederson have not shown Watanabe in view of Looney renders obvious claim elements [1pre], [1a], [1b], [6pre], [6a], and [6b].

EX2017, ¶191; *see generally* EX1008.

Therefore, Petitioners and Dr. Bederson have not shown Watanabe in view of Looney renders obvious claim elements [1pre], [1a], [1b], [6pre], [6a], [6b], and [13a]. Because Petitioners relies on analysis of these claim elements for all dependent claims asserted in Ground 6, Petitioners has failed to show unpatentability by a preponderance of the evidence for any claim in Ground 6.

B. The Combination of Watanabe, Looney, and Platt Fails To Render Obvious Limitations [1c.i], [6c], [6d], [13b], [13c], and [13d]

Petitioners fail to show that that Watanabe in combination with Looney and Platt renders obvious claim elements [1c.i], [6c], [6d], [13b], [13c], and [13d] which all disclose, in some fashion, selection “by a user” or “from a user” of “a digital image,” “desired image data,” or “desired image information,” followed by the retrieval of other digital images/image data/image information whose related information is the same as the selected digital image. EX2017, ¶197.

Regarding elements [6c], [6d], [13b], [13c], and [13d], Petitioners rely on arguments made for claim element [1c.i]. EX1003, ¶185-186, 198-200; Pet., 91-92, 96. Thus, Petitioner’s arguments for claim element [1c.i] will be addressed below, and understood to apply to the corresponding claim 6 and claim 13 elements where not otherwise specified. EX2017, ¶198.

Petitioners fail to show that Watanabe in combination with Looney and Platt discloses claim element [1c.i]: “wherein for a selected digital image

selected by the user, said control module; retrieves other digital images whose related information is the same as the selected digital image.” EX2017, ¶200. As explained above in Section IX.A, primary reference Watanabe does not disclose “digital image” or “image data” in its functionalities, and is directed towards organization of audio data let alone recording image data with related information in a recording medium such that same recorded related information is used for retrieval. For this reason alone, Petitioners fail to show that Watanabe in view of Looney and Platt renders obvious elements [1c.i], [6c], [6d], [13b], [13c], and [13d]. EX2017, ¶199.

Even if we were to assume, *arguendo*, that Watanabe in view of Looney and Platt discloses digital images—which it does not—the Watanabe-Looney-Platt combination still fails to satisfy the claim limitation requiring “a selected digital image selected by the user,” wherein “said control module: retrieves other digital images whose **related information is the same** as the selected digital image” as specified in claim element [1.c.i] and the related information is stored with an association with the digital images in the same recording medium as also required by the claim. EX2017, ¶201. Specifically, even if Watanabe’s icons or visual display features in Watanabe’s FIG. 13 were to be considered a digital image, the result is that Watanabe still does not disclose user selection of any digital image to enable any retrieval function of “other digital images whose related information is the same as the selected image” as required by element

[1.c.i]. EX2017, ¶202. Rather, Watanabe merely discloses user selection of “a retrieval condition setting 81,” (*i.e.* artist, album) for which other musical data are “searched for desired contents, and only the contents are listed on the library list display section 87.” EX1008, [0119]. This is not “same” information that is recorded in a recording medium.

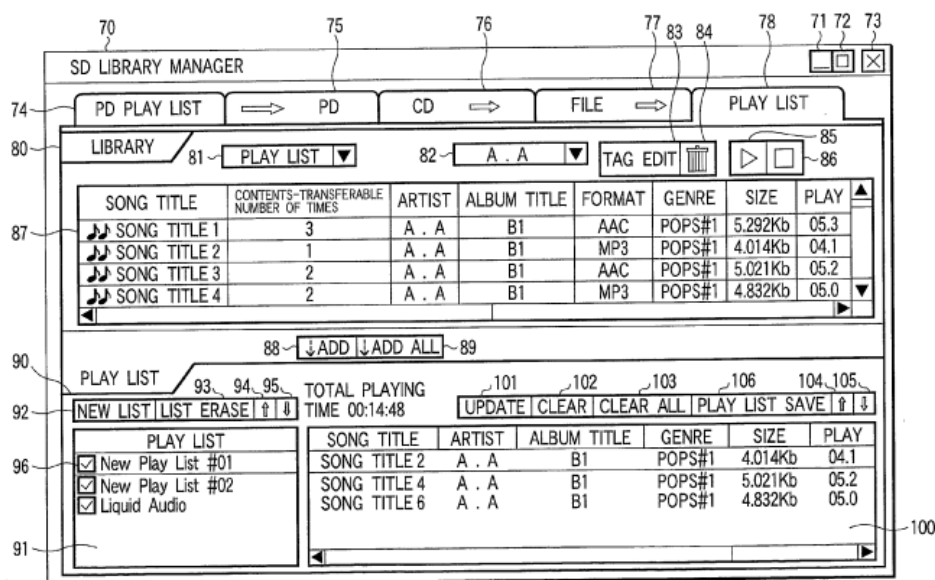


FIG. 13

Id. at FIG13.

Petitioners argue that user selection of the “retrieval condition setting” amounts to “a selected digital image selected by the user” as required by [1c.i]. Pet., 83-84; EX1003, ¶173. However, a POSITA reading this disclosure of Watanabe would understand that “a retrieval condition setting 81” does not amount to “a selected digital image” within the meaning of the ’198 patent, but is instead analogous to the ’198 Patent’s disclosed “retrieval condition,” which corresponds to “associated information” in “a program selected by the user” used to “retrieve[] information associated with the other programs stored in the

recording medium.” EX2017, ¶203; EX1001, 2:63-3:24, *see* Claim 9 (specifies “a **retrieval condition used in retrieving said selected image data**”) (emphasis added). Therefore, a POSITA would understand that Watanabe’s “retrieval condition setting section 81,” selected by the user, does not correspond to “a selected digital image selected by the user” as required by element [1.c.i]. EX2017, ¶203. The Petition completely reads out the requirement of using “same” information that is recorded in the recording medium.

Thus, even if Watanabe could be read to disclose digital image data, which it does not, the user merely selects a “retrieval condition” rather than selecting a digital image for which “other digital images whose related information is the same as the selected digital image” are retrieved. EX2017, ¶203. Consequently, Watanabe’s “retrieval condition setting” does not disclose the claimed requirement for “a selected digital image selected by the user,” for which “other digital images whose related information is the same as the selected digital image are retrieved.” *Id.*

Further, to the extent Petitioners rely on Platt for disclosure of element [1c.i], Platt also fails to disclose “a selected digital image selected by the user, said control module; retrieves other digital images whose related information is the same as the selected digital image.” EX2017, ¶205. Here, Petitioners merely cite to Platt’s functionality to generate a playlist using “seed items,” for which “media items are added into the playlist by computation of similarity metrics or

values.” EX1022, Abstract; EX1003, ¶174 (citing EX1022, Abstract); Pet., 84 (citing EX1022, Abstract). However, Platt’s “invention is described **primarily in relation to songs or audio**” as seed items, and exclusively uses such examples of audio data in its embodiments. EX1022, 5:22-25 (emphasis added). Moreover, Platt discloses user “selecti[on] of a **plurality of seed items**, at least one of which is an **undesirable seed item**.” EX1022, Abstract (emphasis added). This contrasts with [1c.i]’s requirement of a **singular “selected image,”** particularly where “the user **selects a desired program**” or “**desired image data**.” EX2017, ¶205; EX1001, Claim 1, Claim 6, Claim 13, 2:63-64 (emphasis added).

Neither Petitioners nor Dr. Bederson offer any support or explanation for why a POSITA would be motivated to modify Platt to allow a user to select **one desirable seed item**, specifically a digital image, as required by element [1.c.i]. EX2017, ¶205; EX1003, ¶174. The core innovation of Platt lies in its multi-seed, weighted preference function approach. Platt requires multiple seed items—including **at least one undesirable seed item**—weighted by user-assigned preference values, and generates a playlist by computing a **composite preference function** across the entire media collection. EX2017, ¶205. On the other hand, the ’198 Patent operates on a single user-selected program: the user selects one program, and the system reactively retrieves candidates that share the same recording attributes. EX2017, ¶205. There is no concept in Platt of selecting a single item and having the system retrieve “candidates” based on shared

recording metadata for the user's selective approval; conversely, there is no concept in the '198 Patent of multiple weighted seed items, undesirable seeds, or composite preference functions computed via similarity metrics. *See generally* EX1001; Platt; EX2017, ¶205.

Thus, Petitioners fail to show that element [1.c.i] is disclosed or rendered obvious by any combination of Watanabe and Platt. EX2017, ¶206.

Moreover, because Petitioners fail to show that element [1c.i] is met by Watanabe in combination with Looney and Platt as explained above, and rely on these same arguments for independent claim elements [6c], [6d], [13b], [13c], and [13d], Petitioners and Dr. Bederson fail to show that elements [6c], [6d], [13b], [13c], and [13d], are met for at least the same reasons explained above. EX2017, ¶207; EX1003, ¶¶185-186, 198-200; Pet., 91-92, 96.

As such, Petitioners have not shown by a preponderance of the evidence that that Watanabe in view of Looney and Platt renders obvious [1c.i], [6c], [6d], [13b], [13c], and [13d]. EX2017, ¶208. Because Petitioners rely on analysis of these claim elements for all dependent claims asserted in Ground 6, Petitioners have failed to show unpatentability by a preponderance of the evidence for any claim in Ground 6.

C. The Combination of Watanabe and Looney Fails To Render Obvious Limitations [1c.ii], [1c.iii], [1c.iv], [6e], [6f], [6g], [13e], [13f], and [13g]

Petitioners fail to show that that Watanabe in combination with Looney

renders obvious claim elements [1c.ii], [1c.iii], [1c.iv], [6e], [6f], [6g], [13e], [13f], and [13g] which all disclose, in part, output of a list identifying other digital images retrieved based on their related or associated information with a digital image selected by the user, to select another digital image to add to a playlist. EX2017, ¶210.

Regarding elements [6e], [6f], [6g], [13e], [13f], and [13g], Petitioners rely solely on arguments made for claim elements [1c.ii]-[1c.iv]. EX1003, ¶187-189, 201-203; Pet. Br. 92, 97. Thus, Petitioner’s arguments for these claim 1 elements will be addressed below, and understood to apply to the corresponding claim 6 and claim 13 elements where not otherwise specified. EX2017, ¶211.

As explained above in Section IX.A, Watanabe does not disclose “digital image” or “image data” in its functionalities and “same” related information associated and recorded with such digital images, but is solely directed towards organization of audio data. For this reason alone, Petitioners fail to show that Watanabe in view of Looney discloses or renders obvious elements [1c.ii], [1c.iii], [1c.iv], [6e], [6f], [6g], [13e], [13f], and [13g], all of which disclose “digital image” or “image data.” EX2017, ¶212.

Even if we were to assume, *arguendo*, that Watanabe in view of Looney discloses digital images—which it does not—the Watanabe-Looney combination still fails to satisfy the claim limitation “output[ting] a list identifying the other digital images retrieved based on their related information” required by claim

element [1c.ii] because the “other digital images” are not retrieved based on “related information” being “the same as the selected digital image” that is recorded in the recording medium as defined in prior limitation [1c.i], because as explained in Section IX.B, Watanabe does not disclose a “selected digital image selected by the user” as required by [1c.i]. EX2017, ¶213. Thus, Watanabe does not disclose “the other digital images” required by later limitations [1c.ii]-[1c.iv]. *Id.*

Moreover, because Petitioners and Dr. Bederson fail to show that element [1c.ii]-[1c.iv] is met by Watanabe in combination with Looney as explained above, and rely on these same arguments for independent claim elements [6e], [6f], [6g], [13e], [13f], and [13g], Petitioners fail to show that elements [6e], [6f], [6g], [13e], [13f], and [13g] are met for at least the same reasons explained above. EX2017, ¶213; EX1003, ¶¶185-186, 198-200; Pet., 92, 97.

As such, Petitioners have not shown by a preponderance of the evidence that Watanabe in view of Looney and Platt renders obvious [1c.ii]-[1c.iv], [6e]-[6g], and [13e]-[13g]. EX2017, ¶215. Because Petitioners rely on analysis of these claim elements for all dependent claims asserted in Ground 6, Petitioners have failed to show unpatentability by a preponderance of the evidence for any claim in Ground 6.

D. The Combination of Watanabe, Looney, and Platt Fails To Render Obvious Claims 2-3 and 10-12

Petitioners fail to show that that Watanabe in combination with Looney

and Platt renders obvious claims 2-3 and 10-12, specifically the claimed “retrieved image data,” based on a “selected digital image.” EX2017, ¶217.

In particular, the Watanabe, Looney, and Platt disclosures fall short by failing to disclose key functionalities of independent claims 1 and 6, from which claims 2-3 and 10-12 depend, in the context of digital image data or information, as explained above in Sections IX.A-IX.C. More specifically, Watanabe does not disclose the “image data” required by dependent claims 2-3 and 10-12, for the same reasons as explained above in Section IX.A.

Even if we were to assume, *arguendo*, that Watanabe in view of Looney discloses digital images—which it does not—the Watanabe-Looney-Platt combination still fails to disclose “retrieved image data” as required by claims 10-11, nor does it disclose a “selected digital image” as required by claims 2-3 and 12. EX2017, ¶219. In particular, Watanabe in view of Platt and Looney does not disclose the retrieved image data based on “related information” being “the same as the selected digital image” or “the same as the desired image data selected by the user” as required by independent claims 1 and 6, because as explained in Section IX.B, neither Watanabe nor Platt discloses a “selected digital image selected by the user.” *Id.*

As such, Petitioners have not shown by a preponderance of the evidence that that Watanabe in view of Looney and Platt renders claims 2-3 and 10-12 obvious. EX2017, ¶220.

E. The Combination of Watanabe, Looney, Platt, and Kaplan Fails To Render Obvious Claim 4

Petitioners fail to show that that Watanabe in combination with Looney, Platt, and Kaplan renders obvious claim 4, specifically the claimed “digital image selected by said control module.” EX2017, ¶221.

In particular, Watanabe, Looney, Platt, and Kaplan fall short by failing to disclose key functionalities of independent claim 1, from which claim 4 depends, as explained above in Sections IX.A-IX.C. More specifically, Watanabe does not disclose the “digital image” required by corresponding dependent claim 4, for the same reasons as explained above in Section IX.A.

Additionally, a POSITA would not have any motivation to look to Kaplan to combine with Watanabe because none of Kaplan’s alleged benefits raised by Petitioners relate to or solve any problem identified in Watanabe—a fundamentally different system. EX2017, ¶182. The problem solved by Watanabe is unrelated to the technical problems addressed by Kaplan. *Id.* Watanabe discloses an “apparatus and contents management **method** in a computer having a **function of managing the number of duplicated contents** of music, movies or the like” in a “**medium-to-medium**” data transmission. EX1008, [0002], [0005] (emphasis added). Moreover, Watanabe proposes a content management method directed to “**reliably manage[]** the duplication of the original data, especially the **contents to be protected by copyright.**” EX1008, [0006] (emphasis added). In contrast, Kaplan discloses “a multimedia management

system for storing, manipulating, and displaying multimedia content” on a **singular “medium.”** EX1016, Abstract, [0034] (emphasis added). In fact, Kaplan does not discuss media transmission or duplication at all between multiple mediums. *See generally id.* Watanabe’s data management and transmission methods, directed towards managing the number of duplicated contents across mediums, is directed towards solving a different problem on an incompatible system than Kaplan’s singular medium multimedia management system. EX2017, ¶185.

Moreover, neither Petitioners nor Dr. Bederson properly articulate a motivation to combine Kaplan with Watanabe. EX2017, ¶¶181-184. Petitioners purportedly claim that, despite Watanabe’s lack of “a user interface for images,” a “POSITA would be motivated to look to Kaplan for details about what a user interface for filtering based on user images would look like.” EX1003, ¶180. Dr. Bederson fails to provide any rationale as to why a POSITA would combine the medium-to-medium data transmission methods of Watanabe with the singular medium media management system of Kaplan. EX2017, ¶184. Dr. Bederson simply provides a conclusory statement that a POSITA would have been motivated to combine Watanabe with Kaplan because they “relate to the same general subject matter organizing digital images into lists and managing the content,” ignoring the fundamental differences between both systems. EX1003, ¶167. At deposition, when confronted with the fact that the Ground 6 references

address different problems, Dr. Bederson could not deny it, testifying only that the references “address some of the same issues” and “also address different problems.” EX2020, 125:2-9; EX2017, ¶223. When asked to identify any single reference that suggests combining all four references together, Dr. Bederson could not do so, instead asserting there is no “requirement that says that any one piece of prior art must provide a motivation specifically to include any other or all other pieces of prior art.” EX2020, 127:10-21; EX2017, ¶223. Dr. Bederson’s conclusory statements are insufficient and provide no factual support, and thus fail to properly articulate a motivation to combine Kaplan with Watanabe. EX2017, ¶184.

As such, Petitioners have not shown by a preponderance of the evidence that that Watanabe in view of Looney, Platt, and Kaplan renders claim 4 obvious. EX2017, ¶224.

F. The Combination of Watanabe, Looney, and Platt Fails To Render Obvious Claims 7-9

Petitioners fail to show that that Watanabe in combination with Looney and Platt renders obvious claims 7-9, specifically the claimed “image data.” EX2017, ¶231.

In particular, Watanabe, Looney, and Platt fall short by failing to disclose key functionalities of independent claim 6, from which claims 7-9 depend, as explained above in Sections IX.A-IX.C. Specifically, Watanabe does not

disclose the “image data” as required by claims 6-9, as explained above in Section IX.A.

As such, Petitioners have not shown by a preponderance of the evidence that that Watanabe in view of Looney and Platt renders claims 7-9 obvious. EX2017, ¶233.

G. The Combination of Watanabe, Looney, and Platt Fails to Render Obvious Claims 5 and 16

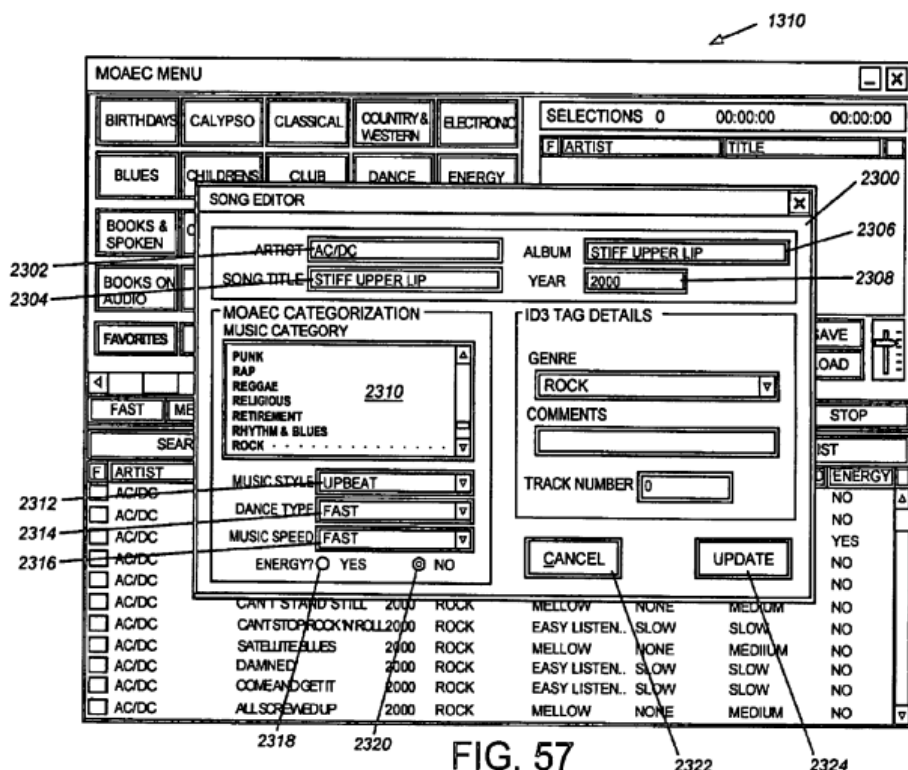
Petitioners fail to show that that Watanabe in combination with Looney and Platt renders obvious claims 5 and 16, specifically the claimed “wherein for a selected digital image selected by the user,” a “telop” is outputted or displayed. EX2017, ¶225.

In particular, Watanabe, Looney, and Platt fall short by failing to render obvious key functionalities of independent claims 1 and 13, from which claims 5 and 16 depend, as explained above in Sections IX.A-IX.C. More specifically, Watanabe does not disclose the “digital image” required by corresponding dependent claims 5 and 16, as explained above in Section IX.A.

Even if we were to assume, *arguendo*, that Watanabe in view of Looney discloses digital images—which it does not—the Watanabe-Looney combination still fails to render obvious a “selected digital image selected by the user” required by claims 5 and 16, as explained above in Section IX.B.

Moreover, Petitioners fail to meet its burden of proof in showing that the Watanabe-Looney combination still discloses a “telop” as required by claims 5

and 16. EX2017, ¶228. In the absence of Looney’s explicit disclosure of a “telop,” Petitioners and Dr. Bederson merely provide a citation to Looney’s FIG. 57 for the “telop” and “selecting menu” elements, without identifying which elements of this image comprise the “telop window.” See EX1003, ¶181.



EX1009, FIG57.

Moreover, Petitioners purportedly claim that, despite Watanabe’s lack of a “telop,” a POSITA would be motivated to look to Looney for disclosure of a telop because “the use of telops was well known in the art, as discussed above with respect to the disclosure of Benjamin.” EX1003, ¶167; Pet., 89-90. However, Petitioners and Dr. Bederson mischaracterize Benjamin as it does not disclose telops. EX2017, ¶229. Thus, even if Petitioners did meet their burden of proof in showing that Looney discloses a telop, which it does not, Petitioners still fail to

articulate why POSITA would have any motivation to look to Looney to combine with Watanabe in light of Benjamin to disclose a “telop” as required by claims 5 and 16. *Id.*

As such, Petitioners have not shown by a preponderance of the evidence that that Watanabe in view of Looney and Platt renders claims 5 and 16 obvious. EX2017, ¶230.

H. The Combination of Watanabe, Looney, and Platt Fails to Render Obvious Claim 14

Petitioners fail to show that that Watanabe in combination with Looney and Platt renders obvious claim 14. EX2017, ¶234.

In particular, Watanabe, Looney, and Platt fall short by failing to render obvious key functionalities of independent claim 13, from which claim 14 depends, as explained above in Sections IX.A-IX.C. More specifically, Watanabe in combination with Looney does not disclose the “image data” required by corresponding dependent claim 14, as explained above in Section IX.A.

Even if we were to assume, *arguendo*, that Watanabe in view of Looney discloses image data—which it does not—Petitioners still fail to show that the Watanabe-Looney combination renders obvious the “telop” required by claim 14, as explained above in Section IX.G.

As such, Petitioners have not shown by a preponderance of the evidence that that Watanabe in view of Looney and Platt renders claim 14 obvious. EX2017, ¶237.

I. The Combination of Watanabe, Looney, and Platt Fails to Render Obvious Claim 15

Petitioners fail to show that that Watanabe in combination with Looney and Platt renders obvious claim 15. EX2017, ¶238.

In particular, Watanabe, Looney, and Platt fall short by failing to render obvious key functionalities of independent claim 13, from which claim 15 depends, as explained above in Sections IX.A-IX.C. More specifically, Watanabe in combination with Looney does not disclose the “image data” required by corresponding dependent claim 15, as explained above in Section IX.A.

Even if we were to assume, *arguendo*, that Watanabe in view of Looney discloses image data—which it does not—the Watanabe-Looney combination still fails to disclose “the bit rate for said image data is determined based on a recordable capacity of said another recording medium on which dubbing is made” as required by claim 15. EX2017, ¶240. Petitioners and Dr. Bederson rely solely here on Watanabe’s disclosure of “the bit rate select section 151,” which is “capable of selecting and designating one for encoding from among a plurality of bit rates.” EX1003, ¶205 (citing EX1008, [0146]); Pet., 98 (citing EX1008, [0146]). While Watanabe discloses a capability of “selecting and designating” a bit rate “from among a plurality of bit rates,” the reference does not disclose nor do Petitioners attempt to argue that Watanabe’s bit rate “is determined based on a recordable capacity of said another recording medium on which dubbing is made” as required by claim 15. See EX1008, [0146]; EX1003, ¶205; Pet., 98.

As such, Petitioners have not shown by a preponderance of the evidence that that Watanabe in view of Looney and Platt renders claim 15 obvious. EX2017, ¶241.

X. CONCLUSION

For at least the foregoing reasons, Petitioners have failed to show that any of Grounds 1-6 render claims 1-16 unpatentable by a preponderance of the evidence. Thus, the Board should confirm the patentability of Claims 1-16.

Dated: May 8, 2026

Respectfully submitted,

/Robert G. Pluta /
Robert G. Pluta (Reg. No. 50,970)
Amanda S. Bonner (Reg. 65,224)
MAYER BROWN LLP
71 S. Wacker Drive
Chicago, IL 60606
Telephone: (312) 701-8641
Fax: (312) 706-8144
rpluta@mayerbrown.com

Saqib J. Siddiqui (Reg. No. 68,626)
Jaspreet K. Momi (Reg. No. 83,379)
MAYER BROWN LLP
1999 K Street NW
Washington, D.C., 20006
ssiddiqui@mayerbrown.com

Counsel for Maxell, Ltd.

CERTIFICATE OF SERVICE

I hereby certify that on this 8th day of May, 2026, a copy of the attached
PATENT OWNER RESPONSE TO PETITION FOR *INTER PARTES* REVIEW
OF U.S. PATENT NO. 8,180,198, together with all exhibits was served by
electronic mail to the attorneys of record, at the following addresses:

James Heintz
jim.heintz@us.dlapiper.com

Blake Jackson
Blake.jackson@us.dlapiper.com

Matthew Middleton
Matthew.middleton@us.dlapiper.com

With a courtesy copy by electronic mail to:
DLA-Maxell-2-IPRs@us.dlapiper.com

Respectfully submitted,

Date: May 8, 2026

By:

/Robert G Pluta Reg No 50970/

Robert G. Pluta (Reg. No. 50,970)

Counsel for Maxell, Ltd.

CERTIFICATION PURSUANT TO 37 C.F.R. § 42.24(d)

Pursuant 37 CFR 42.24(d), the undersigned certifies that this Patent Owner Response and complies with the type-volume limitation of 37 CFR §42.24(a). The word count application of the word processing program used to prepare this Patent Owner Response indicates that the Patent Owner Response contains 13,763 words, excluding the parts of the brief exempted by 37 C.F.R. § 42.24(a).

Respectfully submitted,

/Robert G Pluta Reg No 50970/

Robert G. Pluta (Reg. No. 50,970)