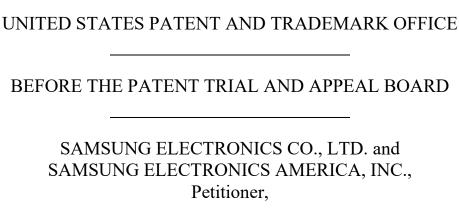
Paper 11 Date: November 17, 2022



v.

MEMORYWEB, LLC, Patent Owner.

PGR2022-00034 Patent 11,163,823 B2

Before LYNNE H. BROWNE, NORMAN H. BEAMER, and KEVIN C. TROCK, *Administrative Patent Judges*.

TROCK, Administrative Patent Judge.

DECISION
Granting Institution of Post-Grant Review
35 U.S.C. § 324

I. INTRODUCTION

A. Background

Samsung Electronics Co., Ltd. and Samsung Electronics America, Inc. (collectively "Petitioner") filed a Petition, Paper 3 ("Pet." or "Petition") to institute a post-grant review of claims 1–34 (the "challenged claims") of U.S. Patent No. 11,163,823 B2 (Ex. 1001, "the '823 Patent"). MemoryWeb, LLC ("Patent Owner") timely filed a Preliminary Response, Paper 8 ("Prelim. Resp."). With our authorization, Petitioner filed a Reply, Paper 9 ("Reply"), and Patent Owner filed a Sur-Reply, Paper 10 ("Sur-Reply").

The Director has discretion to institute a post-grant review under 35 U.S.C. § 324(a). See 35 U.S.C. § 324(a) (stating "[t]he Director may not authorize a post-grant review to be instituted unless the Director determines that the information presented in the petition . . . would demonstrate that it is more likely than not that at least 1 of the claims challenged in the petition is unpatentable)."

Institution of post-grant review requires that the petition, if not rebutted, demonstrate that it is more likely than not that at least one challenged claim is unpatentable. 35 U.S.C. § 324(a). Applying that standard, we institute a post-grant review of the '823 Patent.

B. Real Party in Interest

Petitioner identifies itself as the only real parties in interest. Pet. 97. Patent Owner identifies itself as the only real party in interest. Paper 4, 2.

C. Related Proceedings

The parties identify that the '823 Patent is related to the following U.S. Patents: 9,098,531 ("the '531 patent"); 9,552,376 ("the '376 patent"); 10,423,658 ("the '658 patent"); 10,621,228 ("the '228 patent"); 11,017,020

("the '020 patent"); and 11,170,042 ("the '042 patent") (collectively "the related patents"). Paper 4, 2; Paper 7, 1.

According to the parties, the '823 Patent and the related patents are the subject of the following actions: *MemoryWeb, LLC v. Samsung Electronics Co., Ltd. et al.*, No. 6:21-cv-00411 (W.D. Tex.) (pending); *MemoryWeb, LLC v. Apple, Inc.*, No. 6:21-cv-00531 (W.D. Tex.) (pending); *MyHeritage (USA), Inc. et al. v. MemoryWeb, LLC*, No. 1:21-cv-02666 (N.D. II.) (dismissed); *Samsung Electronics Co., Ltd. v. MemoryWeb, LLC*, IPR2022-00222 (pending); *Samsung Electronics Co., Ltd. v. MemoryWeb, LLC*, IPR2022-00221 (pending); *Apple Inc. v. MemoryWeb, LLC*, IPR2022-00033 (pending); *Apple Inc. v. MemoryWeb, LLC*, IPR2022-00032 (pending); *Apple Inc. v. MemoryWeb, LLC*, IPR2022-00032 (pending); *Apple Inc. v. MemoryWeb, LLC*, IPR2022-00031 (pending); *United Patents, LLC v. MemoryWeb, LLC*, IPR2021-01413; and U.S. Patent Application No. 17/459,933 (pending). Pet. 97–98; Paper 4, 2–3; Paper 7, 1–2.

Petitioner further identifies a concurrent *inter partes* review proceeding involving the '823 Patent: *Samsung Electronics Co. Ltd. et al. v. MemoryWeb, LLC*, IPR2022-00085 (pending). Pet. 97. Petitioner also identifies the following action involving the '020 patent: *Apple Inc. v. MemoryWeb, LLC*, PGR2022-00006 (pending). *Id.* at 98; Paper 7, 2.

D. The '823 Patent (Ex. 1001)

The '823 Patent relates to a computer-implemented system and method for managing and using digital files such as digital photographs. Ex. 1001, 1:17–20. Specifically, the '823 Patent describes a storage system that includes a digital file repository for storing and retrieving digital files (such as photos), a digital tagging system configured to assign digital tags to the digital files, a storing system, and a user interface. *Id.* at 4:34–38.

As described by the '823 Patent, the digital tagging system includes various types of data, such as a person's name, a location, a recipe, a date, a family relationship to the user, an event name, a rating, sharing rights, file type and a document name. *Id.* at 4:39–42. The sorting system allows the digital files to be searched and stored according to a plurality of types of data and is used for creating and organizing special views. *Id.* at 4:42–45. The user interface is user-configurable, and presents the digital files on a user's screen based on these user inputs. *Id.* at 4:45–47.

Figure 18 is a screenshot of a search filter view of a digital file storage system. *Id.* at 3:30–31. Figure 18 is reproduced below.

FIG. 18

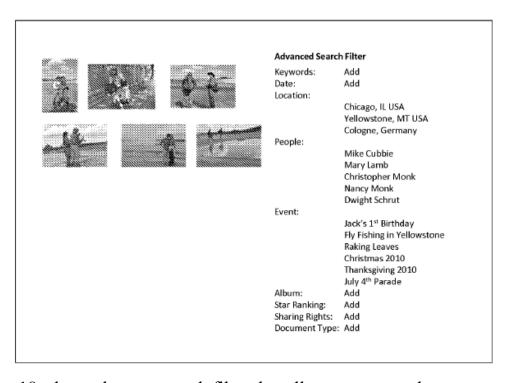


Figure 18, above shows a search filter that allows users to select one or more criteria that will narrow down their results to only the digital files matching input criteria. *Id.* at 7:15–18, 42–43. The entire system can be filtered by, for example, key words (or plurality of key words), event names, location,

people, albums, star rating, file type, document type, and dates. *Id.* at 7:18–21.

Figure 6 is a screenshot of a people thumbnail view of the digital file storage system. *Id.* at 3:5–6. Figure 6 is reproduced below.

FIG. 6



Figure 6, above, shows a people view (*i.e.*, thumbnail photos of all the people in the system that can be clicked in for a people profile view). *Id.* at 6:20–22.

Figure 7 is a screenshot of a people profile view of the digital file storage system. *Id.* at 3:7–8. Figure 7 is reproduced below.

FIG. 7

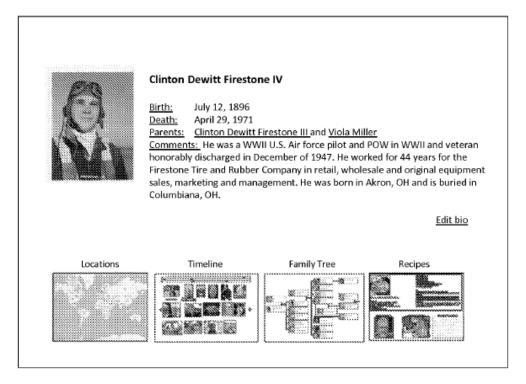


Figure 7, above, shows a people profile view (*i.e.*, a profile picture of an individual, their birth/death information, family relationships, overview (comments) on the person, as well as links to other views that contain that individual in the system (such as a location view)). *Id.* at 6:22–26.

Figure 5 is a screenshot of a location view of the digital file storage system. *Id.* at 3:3–4. Figure 5 is reproduced below.

FIG. 5

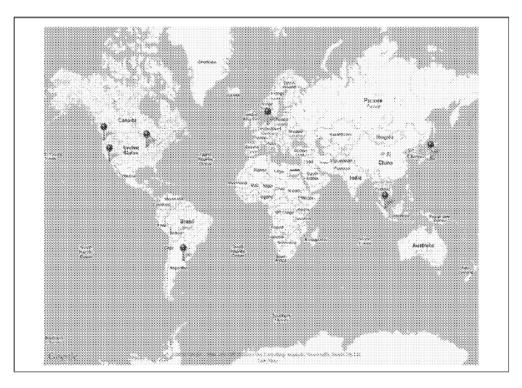


Figure 5, above, shows a location view which identifies within an interactive map where digital files were taken or originated. *Id.* at 6:14–16. The location view can also provide additional outputs such as a journey route that identifies the specific locations for an event or trip that can be customized by users. *Id.* at 6:16–19.

Figure 2 is a screenshot of a photo detail view of the digital file storage system. *Id.* at 2:64–65. Figure 2 is reproduced below.

FIG. 2



Comments: Suzanne and Anthony's Wedding Party where the cousins posed for a photo in the grass. Note, Jack with the lollipop and the photographer with his shoe in the photo

People: Jack Wong CJ Wong Mary Firestone Zoe Peika Nick Persons

Event: Suzanne & Anthony's Wedding Reception 2010

Camera Details: more



Location: Historical Society Lisle, IL 60532

Figure 2, above, shows an individual album or event view which allows one to see the files associated with a specific group. *Id.* at 6:8–9.

E. Challenged Claims

Petitioner challenges claims 1–34 of the '823 Patent. Pet. 1. Claims 1 and 29 are independent. Claim 1 is illustrative.

[1pre] 1. A method comprising:

- [1a] causing an interface to display a search-filter view, the search-filter view permitting a user to filter a plurality of digital files based on one or more criteria;
 - [1b] responsive to a first input within the search-filter view, causing the interface to display a people view including a first image associated with a first person and a second image associated with a second person;
 - [1c] responsive to an input that is indicative of a selection associated with the first person,

causing a first person view to be displayed on the interface, the first person view including a first digital file associated with the first person;

- [1d] responsive to an input that is indicative of a selection associated with the first digital file, causing a first detail view to be displayed on the interface, the first detail view including (i) the first digital file, (ii) first information associated with the first digital file and (iii) a first map image associated with the first digital file, the first digital file having a first size in the first person view and a second size in the first detail view, wherein the second size is greater than the first size;
- [1e] responsive to an input that is indicative of a selection associated with the second person, causing a second person view to be displayed on the interface, the second person view including a second digital file associated with the second person;
 - [1f] responsive to an input that is indicative of a selection associated with the second digital file, causing a second detail view to be displayed on the interface, the second detail view including (i) the second digital file, (ii) second information associated with the second digital file and (iii) a second map image associated with the second digital file; and
- [1g] responsive to a second input within the search-filter view, causing the interface to display a locations view including a first name associated with a first

location, and a second name associated with a second location;

- [1h] responsive to an input that is indicative of a selection associated with the first location, causing a first set of digital files to be displayed on the interface, each digital file in the first set of digital files being associated with the first location; and
- [1i] responsive to an input that is indicative of a selection associated with the second location, causing a second set of digital files to be displayed on the interface, each digital file in the second set of digital files being associated with the second location.

Ex. 1001, 35:1–54 (numbering and formatting designated by Petitioner; *see* Pet. 13–37).

F. Evidence

Petitioner relies upon the following evidence: David Pogue and J.D. Biersdorfer, iPhoto '09 The Missing Manual (2009) ("Pogue") (Ex. 1005); Adam C. Engst, Visual QuickStart Guide iPhoto '09 (2009) ("Engst") (Ex. 1007); U.S. Patent App. Pub. No. 2010/0058212 A1 ("Belitz") (Ex. 1008); and U.S. Patent App. Pub. No. 2005/0116954 A1 ("Ripps") (Ex. 1009).

Petitioner relies on the declaration of Phillip Greenspun, Ph.D. (Ex. 1003).

Patent Owner relies on the declaration of Glenn Reinman, Ph.D. (Ex. 2001).

G. Asserted Grounds of Unpatentability

Petitioner asserts the following grounds of unpatentability in the Petition.

Claim(s) Challenged	35 U.S.C. §	References
1–25, 27–34	103	Pogue, Engst
26	103	Pogue, Engst, Belitz
12–14	103	Pogue, Engst, Ripps

Pet. 8.

II. ANALYSIS

A. Post-Grant Review Eligibility

As a threshold matter, we must determine whether Petitioner has shown that the '823 Patent is eligible for post-grant review. *See Commonwealth Sci. & Indus. Res. Org. v. BASF Plant Sci. GmbH*, PGR2020-00033, Paper 11, 7 (PTAB Sept. 10, 2020); *Mylan Pharms. Inc. v. Yeda Res. & Dev. Co.*, PGR2016-00010, Paper 9, 10 (PTAB Aug. 15, 2016); *US Endodontics, LLC v. Gold Standard Instruments, LLC*, PGR2015-00019, Paper 17, 9–12 (PTAB Jan. 29, 2016).

35 U.S.C. § 321(1)(A) states "[t]he post-grant review provisions of the Leahy-Smith America Invents Act (AIA) apply only to patents subject to the first inventor to file provisions of the AIA." 35 U.S.C. § 321(1)(A) (emphasis added). 35 U.S.C. 321(c) further states "[a] petition or a post-grant review may only be filed not later than the date that is 9 months after the date of the grant of the patent." 35 U.S.C. 321(c) (emphasis added).

The '823 Patent was issued on November 2, 2021. Ex. 1001, code (45). The Petition was filed on April 20, 2022. Paper 6, 1. As the Petition was timely filed within nine months after the grant of the '823 Patent, the eligibility of the Petition depends on whether the '823 Patent is subject to the first inventor to file provisions of the AIA. 35 U.S.C. § 100 states that:

[t]he first inventor to file provisions of the [AIA] apply to . . . any patent . . . that contains or contained at any time -(A) a claim to a claimed invention that has an effective filing date on or after

March 16, 2013 wherein the effective filing date is: . . . (ii) <u>the filing date of the earliest application for which the patent . . . is entitled . . . to the benefit of an earlier filing date under section 120.</u>

35 U.S.C. § 100 (emphasis added).

Thus, the question of whether the '823 Patent is subject to the first inventor to file provisions of the AIA, and is therefore eligible for post-grant review, depends on whether any claim of the '823 Patent has an effective filing date on or after March 16, 2013. If, however, all of the claims of the '823 Patent are entitled to an effective filing date earlier than March 16, 2013, then the '823 Patent is not subject to the first inventor to file provisions of the AIA and is not eligible for post-grant review.

1. Priority of the '823 Patent

The '823 Patent was filed on August 8, 2019 but claims priority to U.S. Pat. Appln. No. 13/157,214 ("the '214 application"), filed on June 9, 2011. Ex. 1001, codes (22), (63). Thus, on its face, the '823 Patent claims an effective filing date earlier than March 16, 2013. If valid, this priority claim precludes the '823 Patent from being eligible for post-grant review.

Petitioner contends, however, that the '823 Patent is <u>not</u> entitled to claim priority to the filing date of the '214 application (*i.e.*, June 9, 2011). Pet. 1–8; Paper 2, 2. Specifically, Petitioner contends at least one claim of the '823 Patent (*i.e.*, claim 26) does not have written description support in the '214 application. Pet. 3–4. Petitioner further contends that if the priority claim to the '214 application is not valid, the '823 Patent <u>is</u> subject to the first inventor to file provisions of the AIA, and therefore, <u>is</u> available for post-grant review. *Id.* at 1.

Patent Owner "does not dispute for the purposes of this proceeding that the '823 Patent is an AIA patent, and stipulates that the '823 Patent is

PGR eligible." Prelim. Resp. 9. Nonetheless, we must still determine whether the '823 Patent is subject to the first inventor to file provisions of the AIA, and therefore, eligible for post-grant review.

2. Eligibility

Petitioner contends that the '823 Patent is eligible for post-grant review because it does not have a valid priority claim to the '214 Application. Pet. 1. Petitioner argues that the priority claim of the '823 Patent is invalid because dependent claim 26 lacks written description support in the '214 Application. Pet. 3–7.

Claim 26 reads as follows:

26. The method of claim 25, wherein the first indication on the interactive geographic map is a third image and the second indication on the interactive geographic map is a fourth image.

Ex. 1001, 37:29–32.

Petitioner argues that "there is no written description support anywhere in the '214 Application— which is the only application in the priority chain of the '823 Patent that was filed before March 16, 2013—for displaying specific images on an interactive map as indications of digital files." Pet. 5. Petitioner points out that "the '214 Application mentions the term 'map' only twice in the entire application," but "[t]here is no mention of any images provided on the map." *Id.* Petitioner also points out that in Figure 5 of the '214 Application, map markers are represented by pins, but "there are no 'images' shown anywhere on the map." *Id.* Petitioner asserts that "[n]owhere does the '214 Application describe or suggest displaying a "third image" and a "fourth image" on the interactive geographic map, as recited in claim 26 of the '823 Patent." *Id.*

We agree with Petitioner. To satisfy the written description requirement, a patent specification must describe the claimed invention in sufficient detail so that one skilled in the art can reasonably conclude that the inventor had possession of the claimed invention. *See, e.g., Moba, B.V. v. Diamond Automation, Inc.*, 325 F.3d 1306, 1319 (Fed. Cir. 2003). An applicant shows possession of the claimed invention by describing the claimed invention with all of its limitations using such descriptive means as words, structures, figures, diagrams, and formulas that fully set forth the claimed invention. *Lockwood v. Amer. Airlines, Inc.*, 107 F.3d 1565, 1572 (Fed. Cir. 1997).

Based upon our review of the preliminary record, dependent claim 26 lacks written description support because there is no discussion or disclosure in the specification of displaying particular images on an interactive map as indications of digital files such that one skilled in the art could reasonably conclude that the inventor had possession of the subject matter of claim 26. Without written description support for claim 26, the '823 Patent cannot claim priority to the filing date of the '214 Application, June 9, 2011. Because the '823 Patent was filed after March 16, 2013, and does not appear to have a valid priority claim to an application filed before March 16, 2013, the '823 Patent is subject to the first inventor to file provisions of the AIA and is, therefore, eligible for post-grant review.

B. Compliance with 35 U.S.C. § 311(c)

Petitioner advises that it has filed two petitions (*i.e.*, PGR2022-00034 and IPR2022-00885) challenging the same claims of the '823 Patent using the same prior art grounds. *See* Paper 2, 1. Petitioner ranks PGR2022-00034 as its preferred petition. *Id.* Petitioner contends that "[b]oth petitions are meritorious and justified" and "Petitioner seeks institution of both

petitions." *Id.* Petitioner thus "requests institution of both [*inter partes* review] and [post-grant review] petitions if the Board finds that the threshold requirements for institution of both [*inter partes* review] and [post-grant review] are met," and "Petitioner [additionally] requests consolidation of the two proceedings, as permitted by 35 U.S.C. §§ 315(d) and 325(d), and a briefing schedule that matches the briefing schedule of a [post-grant review] alone. *Id.* at 4.

Patent Owner "does not dispute for the purposes of this proceeding that the '823 patent is an AIA patent, and stipulates that the '823 patent is PGR eligible." Prelim. Resp. 9. Patent Owner, however, takes the position that "in the event the Board determines Petitioner has met its burden, the Board should institute only PGR2022-00034 and deny institution of IPR2022-00885 in order to prevent unnecessarily duplicative proceedings." *Id.* at 10.

We cannot comply with Petitioner's request that the Board institute both Petitioner's post-grant review petition (PGR2022-00034) and *interpartes* review petition (IPR2022-00885). 35 U.S.C. § 311 requires that "[a] petition for inter partes review shall be filed after the later of either—(1) the date that is 9 months after the grant of a patent; or (2) if a post-grant review is instituted under chapter 32, the date of the termination of such post-grant review." 35 U.S.C. § 311(c).

The '823 Patent issued on November 2, 2021. Ex. 1001, 1. Thus, an *inter-partes* review petition of the '823 Patent is prohibited from being validly filed prior to August 2, 2022. Here, Petitioner's *inter-partes* review petition (IPR2022-00085) was filed on April 20, 2022, several months prior to the eligibility date of August 2, 2022. Thus, Petitioner's *inter-partes* review petition (IPR2022-00085) must be dismissed as premature in

violation of 35 U.S.C. § 311(c). A separate decision dismissing Petitioner's *inter-partes* review petition will be issued in IPR2022-00085.

C. Discretionary Denial Under 35 U.S.C. § 325(d)

Patent Owner asserts that "the Board should exercise its discretion to deny institution" because "the same or substantially the same art previously were presented to the Office and the Petitioner has not demonstrated that the Examiner erred." Prelim. Resp. 17 (citing *Advanced Bionics*, 22).

Under 35 U.S.C. § 325(d), the Board may exercise discretion to deny a petition that presents the same or substantially the same art or arguments as were previously presented to the Office. "[T]he art and arguments must have been previously presented to the Office during proceedings pertaining to the challenged patent." *Advanced Bionics, LLC v. MED-EL Elektromedizinische Geräte GmbH*, IPR2019-01469, Paper 6 at 7 (PTAB Feb. 13, 2020) (precedential) ("*Advanced Bionics*"). *Advanced Bionics* provides examples of "proceedings pertaining to the challenged patent." "The proceedings in which the art was previously presented include, for example: examination of the underlying patent application, reexamination of the challenged patent, a reissue application for the challenged patent, and AIA post-grant proceedings involving the challenged patent." *Id.* at 8.

To evaluate arguments for discretionary denial under § 325(d), the Board uses a two-part framework applied in *Advanced Bionics* that considers:

(1) whether the same or substantially the same art previously was presented to the Office or whether the same or substantially the same arguments previously were presented to the Office; and (2) if either condition of first part of the framework is satisfied, whether the petitioner has demonstrated that the Office erred in a manner material to the patentability of challenged claims. If a condition in the first part of the framework is satisfied and the

petitioner fails to make a showing of material error, the Director generally will exercise discretion not to institute *inter partes* review.

Advanced Bionics, Paper 6 at 8–9 (footnote omitted).

1. Analysis under Advanced Bionics

Patent Owner argues that "one of the Petition's primary references (Pogue) was specifically considered by the Examiner and is the very first non-patent reference cited on the face of the patent." Prelim. Resp. 12 (citing Ex. 1001, 5). Patent Owner explains that it "identified Pogue to the Examiner in its Fourth Information Disclosure Statement." *Id.* (citing Ex. 1002, 186). Then, "[o]n June 8, 2021, in conjunction with transmitting a Non-Final Rejection, the Examiner indicated that he had considered Pogue." *Id.* (citing Ex. 1002, 135).

Patent Owner also asserts that "[a] further reference disclosing the operation of the iPhoto '09 software was identified in Patent Owner's Sixth Information Disclosure Statement on September 14, 2021." *Id.* (citing Ex. 1002, 22). Patent owner points out that "[t]he Examiner indicated that he had considered this reference on September 30, 2021 in conjunction with transmitting the Notice of Allowance." *Id.* (citing Ex. 1002, 9) (noting consideration of Perez, L., *iPhoto 09 Basics*, Florida Center for Instructional Technology ("Perez")). "In addition to considering Pogue and Perez disclosing operation of Apple's iPhoto software," Patent Owner asserts, "the examiner considered nineteen patent references assigned to Apple." *Id.* (citing Ex. 2002, 20, 22–28).

Patent Owner also argues that Engst "describes the exact same iPhoto software as that described in Pogue and Perez, which were considered by the examiner." Prelim. Resp. 13. "Because the Petition relies on citations to

Pogue and Engst interchangeably throughout 'as evidence of iPhoto '09's operation," Patent Owner argues, "Engst is cumulative." *Id.* at 16 (citing Pet. 13, n.6).

Petitioner contends that "[t]he Petition presents invalidity grounds that are based solely on prior art references that were not relied on by the Office to reject any claims during prosecution of the '823 Patent and that are materially different from and not cumulative of the prior art applied during examination." Reply 1. Petitioner points out that "of the four prior art references relied upon in the Petition, three of them were not mentioned at all during prosecution: Engst, Belitz, and Ripps." *Id.* Petitioner asserts that "it is undisputed that Engst, Belitz, and Ripps were never made available to the Office during examination." *Id.*

According to Petitioner, "the Examiner did not apply Pogue in any rejection or discuss it in any capacity during prosecution." *Id.* "Pogue," Petitioner points out, "was merely cited in an information disclosure statement, *which listed over 400 other references*—some of which are hundreds of pages long—and there is no indication that the Examiner substantively considered Pogue, much less the portions of Pogue cited in the Petition." *Id.* at 2. Petitioner also argues that Pogue and Engst are materially different from the references that were relied upon by the Examiner during prosecution, namely Hibino, Marco, and Tanaka. *Id.* at 3–4.

Petitioner further argues that because "[t]he Office was not made aware of at least Engst, Belitz, and Ripps, which are relied upon in the grounds advanced in the Petition," "the Office did not evaluate these references or use these references as a basis for any rejection during examination." *Id.* at 4.

Here, Petitioner asserts three grounds against various claims of the '823 Patent using combinations of Pogue, Engst, Belitz, and Ripps. The prosecution history of the '823 Patent indicates that Pogue was identified on the Fourth Information Disclosure Statement ("4th IDS") along with 98 other references and that the Examiner indicated the date on which the references were considered. *See* Ex. 1002, 135. The prosecution history, however, does not indicate that Pogue was ever discussed or cited by the Examiner in any office action during examination of the '823 Patent. *See generally* Ex. 1002.

The record also shows that three of the four references asserted in the Petition, namely Engst, Belitz, and Ripps, were not presented to the Office or considered during prosecution of the '823 Patent. Here, each of the grounds asserted in the Petition uses at least one reference that was not presented to, or considered by, the Office during examination of the '823 Patent. Based on this record, the combination of art asserted in the Petition was never presented previously to the Office.

Patent Owner asserts, however, that Engst is cumulative of Pogue. Prelim. Resp, 14–16. In response, Petitioner argues that "each publication 'detail[s] *various aspects* of the iPhoto '09 software and provide an explicit motivation to combine," and that "the Petition carefully laid out, with supporting testimony from Dr. Greenspun, why [a person of ordinary skill in the art] would have found it obvious to combine Pogue and Engst." Pet. Reply (citing Pet. 17–19; Ex. 1003 ¶¶ 77–78).

We do not agree with Patent Owner that Pogue and Engst are cumulative. Although Pogue and Engst each address Apple's iPhoto software, the references do so in different ways, describing the features and operation of the software differently, using different examples and different illustrations. For example, with respect to limitation [1c], the recited "first person view," Petitioner relies on Engst's Chapter 4, "Working with Faces," in particular Figures 4.2 and 4.3, to illustrate how "a user can 'double-click a person's snapshot to display all the photos that have been identified as containing that person." Pet. 26–27. A review of Pogue's discussion of iPhoto's "Faces" feature in Chapter 4, "Faces and Places," does not appear to illustrate this particular feature. *See* Ex. 1005, 89–101.

Because each of the grounds presented in the Petition rely upon a combination of art that was not presented to the Office and there is no indication in the record that Engst, Belitz, and Ripps were considered during examination of the '823 Patent, we cannot say that the same or substantially the same art or arguments were previously presented to the Office as Patent Owner contends. Because the first part of the *Advanced Bionics* framework has not been satisfied, we do not reach the second part of the framework. Accordingly, we decline to exercise our discretion under Section 325(d) to dismiss the Petition.

D. Level of Ordinary Skill in the Art

Petitioner describes a person of ordinary skill in the art as a person having "(1) a bachelor's degree in computer science, computer engineering, electrical engineering, or a related field, and (2) at least one year of experience designing graphical user interfaces for applications such as photo organization systems." Pet. 9 (citing Ex. 1003 ¶¶ 26–27). Petitioner also describes that "[a]dditional graduate experience could substitute for professional experience, or significant experience in the field could substitute for formal education." Pet. 9. Patent Owner does not contest Petitioner's description of a person of ordinary skill in the art. *See* Prelim. Resp. 17.

Petitioner's description of a person of ordinary skill appears consistent with the subject matter of the '823 Patent. This is supported by the testimony of Petitioner's declarant, Dr. Greenspun. *See* Ex. 1003 ¶¶ 26–27. We, therefore, adopt Petitioner's assessment of a person of ordinary skill for purposes of this Decision, with the exception of the qualifier "at least," to keep the description from being vague and extending to a level reflecting that of an expert. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001); *In re GPAC Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995).

E. Claim Construction

For this *inter partes* review, the Board applies the same claim construction standard as that applied in federal courts. *See* 37 C.F.R § 42.100(b) (2019). Under this standard, claim terms "are generally given their ordinary and customary meaning" as understood by a person of ordinary skill in the art in question at the time of the invention. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–13 (Fed. Cir. 2005) (en banc) (citations omitted).

Under *Phillips*, the meaning of claim terms are considered in the context of the specification, the prosecution history, other claims, and even extrinsic evidence including expert and inventor testimony, dictionaries, and learned treatises, although extrinsic evidence is less significant than the intrinsic record. *Phillips*, 415 F.3d at 1312–17. Usually, the specification is dispositive, and it is the single best guide to the meaning of a disputed term. *Id.* at 1315.

Only terms that are in controversy need to be construed, and then only to the extent necessary to resolve the controversy. *Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co. Matal*, 868 F.3d 1013, 1017 (Fed. Cir.

2017) (in the context of an *inter partes* review, applying *Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999)).

Neither party offers any constructions for any claim terms. *See* Pet. 8–9; *see also* Prelim. Resp. 17–18. Patent Owner agrees that the claims can be afforded their plain and ordinary meaning. Prelim. Resp. 17. At this stage of the proceeding, we do not construe any claim terms.

F. Patentability Challenges

As indicated above, Petitioner presents three grounds challenging the patentability of particular claims of the '823 Patent under 35 U.S.C. § 103. Specifically, Petitioner challenges the patentability of: (1) claims 1–25 and 27–34 based on the teachings of Pogue and Engst; (2) claim 26 based on the teachings of Pogue, Engst, and Belitz; and (3) claims 12–14 based on the teachings of Pogue, Engst, and Ripps. *See* Pet. 8, 13, 83, 89.

1. Principles of Law

A claim is unpatentable under 35 U.S.C. § 103 if "the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains." *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved on the basis of underlying factual determinations, including: (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of skill in the art; and (4) objective evidence of nonobviousness,

i.e., secondary considerations.¹ See Graham v. John Deere Co. of Kansas City, 383 U.S. 1, 17–18 (1966).

The Supreme Court has made clear that we apply "an expansive and flexible approach" to the question of obviousness. *KSR*, 550 U.S. at 415. Whether a patent claiming the combination of prior art elements would have been obvious is determined by whether the improvement is more than the predictable use of prior art elements according to their established functions. *Id.* at 417. Reaching this conclusion, however, requires more than a mere showing that the prior art includes separate references covering each separate limitation in a claim under examination. *Unigene Labs.*, *Inc.* v. *Apotex, Inc.*, 655 F.3d 1352, 1360 (Fed. Cir. 2011). Rather, obviousness requires the additional showing that a person of ordinary skill at the time of the invention would have selected and combined those prior art elements in the normal course of research and development to yield the claimed invention. *Id.*

2. Relevant Prior Art

a) Pogue (Ex. 1005)

Pogue is titled "iPhoto '09 The Missing Manual," and describes, explains, and provides directions on how to use Apple Inc.'s "iPhoto" software program that is designed to organize, edit and distribute digital photos (*i.e.*, photos). Ex. 1005, 2.² iPhoto includes a "Faces" feature that analyzes photos and groups photo collections based on the people who are in

_

¹ The parties do not present evidence or argument directed to secondary considerations.

² Citations to Pogue (Ex. 1005) and Engst (Ex. 1006) are to the exhibit's original page numbering, and not to numbering subsequently applied to the exhibit by counsel.

the photos. *Id.* at 18. iPhoto also includes a "Places" feature that plots photos on an electronic map. *Id.*

As previously described, iPhoto's Faces feature analyzes unique properties of each face in each photo and automatically groups the photos into photo collections based on its analysis. *Id.* at 89–90. Figure 4-3 is a screenshot of a Faces user interface. *Id.* at 92. Figure 4-3 is reproduced below.

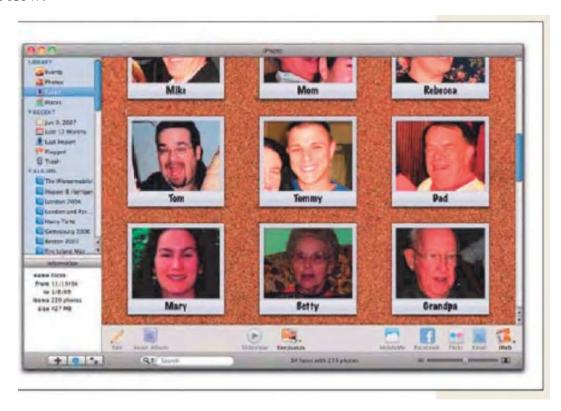


Figure 4-3, above, shows the Faces user interface, selectable from a "Source" list, that displays thumbnail photos that have been tagged and assigned a name by a user. *Id*.

iPhoto also includes an "Events" feature that groups photos that were all taken at approximately the same time. *Id.* at 34. Figure 2-6 is a cropped screenshot of an Events user interface. *Id.* at 46. Figure 2-6 is reproduced below.



Figure 2-6, above, shows thumbnail photos, where each thumbnail represents one "pile" of photos, and where a pile represents an "event" (*i.e.*, a group of photos that were all taken at approximately the same time). *Id.* at 34.

iPhoto also includes an "Albums" feature that organizes subsets of photos for easy access and viewing. *Id.* at 55. Figure 2-13 is a cropped screenshot of an Albums user interface. *Id.* at 75–76. Figure 2-13 is reproduced below.

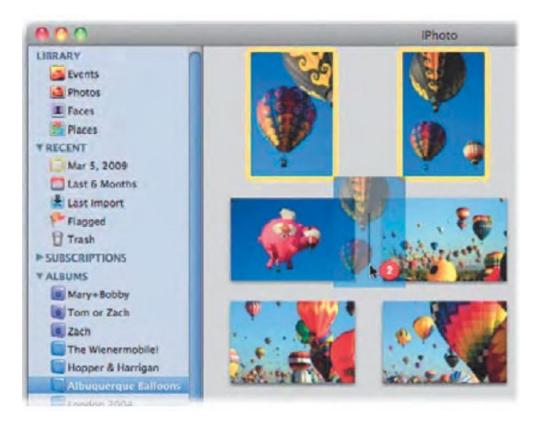


Figure 2-13, above, shows a group of photos either manually or automatically organized into an album. *Id.* at 55.

As previously described, iPhoto's Places feature associates longitude and latitude coordinates into each taken photo. *Id.* at 101. Figure 4-16 is a user interface of a Places user interface. Figure 4-16 is reproduced below.



Figure 4-16, above, shows a series of lists in the top part of the window, and the actual photos in each list underneath. *Id.* at 108–109.

iPhoto also includes a search feature that allows a user to search photos based on a user-entered phrase. *Id.* at 79. Figure 3-2 is a screenshot of a user interface that provides a search feature. Figure 3-2 is reproduced below.



Figure 3-2, above, shows a user interface that provides a search feature. *Id.* A user types a phrase in a search box, and, as the user types the phrase, iPhoto hides all photos except the photos that have the typed phrase somewhere in their titles, keywords, descriptions, faces, places, file names, or Event titles. *Id.* at 80.

iPhoto also allows a user to add additional information to a photo. *Id.* at 106. Figure 4-14 is a screenshot of a photo's "Info" box. Figure 4-14 is reproduced below.



Figure 4-14, above, shows a photo's Info box. *Id.* The Info box stores information including names, dates, and ratings. *Id.* at 107. The Info box also allow a user to use the stored information to search for the photo and to add the photo to an album. *Id.* The Info box also displays a map. *Id.*

b) Engst (Ex. 1006)

Engst is titled "Visual QuickStart Guide iPhoto '09" and also describes, explains, and provides directions on how to use Apple's iPhoto software program. Ex. 1006, 1.

According to Engst, iPhoto includes an "organize mode," where the organize mode includes a user interface that displays a "source pane," and the source pane allows a user to create photos and work with photo

collections. *Id.* at 30–31. Figure 3.2 is a screenshot of iPhoto's organize mode, which includes a source pane and a Photos view. *Id.* at 31. Figure 3.2 is reproduced below.

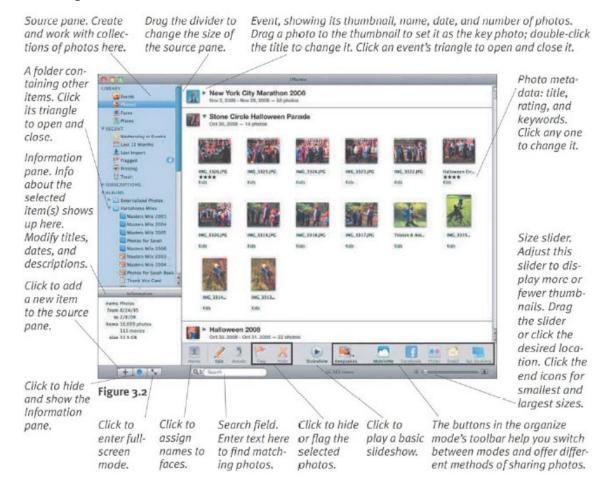


Figure 3.2, above, shows the controls available in organize mode. *Id.* The organize mode displays photos and photo metadata associated with a specific event, where the photo metadata includes: title, rating, and keywords. *Id.*

Engst also describes the Faces feature of iPhoto. *Id.* at 64. Engst describes that iPhoto offers a number of different views, depending on whether a user is naming faces found in a photo, browsing through photos including identified faces, or training iPhoto to recognize a face in a photo.

Id. Figure 4.1 is a screenshot of a naming view. *Id.* Figure 4.1 is reproduced below.



Figure 4.1, above, shows that the naming view magnifies a photo and displays a name lozenge under any faces iPhoto has detected within the photo. *Id*.

Figure 4.2 is a screenshot of a Faces user interface. *Id.* Figure 4.2 is reproduced below.



Figure 4.2, above, shows a Faces user interface, selectable from a source pane, that displays a photo of each named person. *Id*.

Figure 4.3 is a screenshot of a user interface that displays all photos identified as containing a selected person. *Id.* Figure 4.3 is reproduced below.



Figure 4.3, above, shows a user interface, selectable from the Faces user interface via a "double-click" of a person's snapshot, that displays all photos that have been identified as containing the selected person. *Id.*

Figure 4.4 is a screenshot of a user interface that displays all photos identified as either containing a selected person or potentially containing the selected person. *Id.* Figure 4.4 is reproduced below.



Figure 4.4, above, shows a user interface, selectable from the Faces user interface via a "double-click" of a person's snapshot, that displays all photos that have been identified as either containing the selected person or potentially containing the selected person. *Id.* The user interface includes a "Confirm Name" button that, when selected by a user, allows a user to confirm that a photo either contains the selected person or does not contain the selected person. *Id.*

Engst further describes that iPhoto presents basic information about photos in two places: an "Information dialog" and an "Information pane." *Id.* at 61. Figure 3.62 is a screenshot of an Information dialog. Figure 3.62 is reproduced below.



Figure 3.62, above, shows the Information dialog of a selected photo. *Id*. The information dialog displays the following fields: title; date; time; rating; keyword; kind; size; description; and location. *Id*. The information dialog also displays a map showing the location. *Id*.

Figure 3.63 is a screenshot of an Information pane. Figure 3.63 is reproduced below.

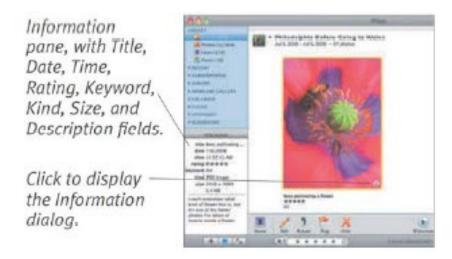
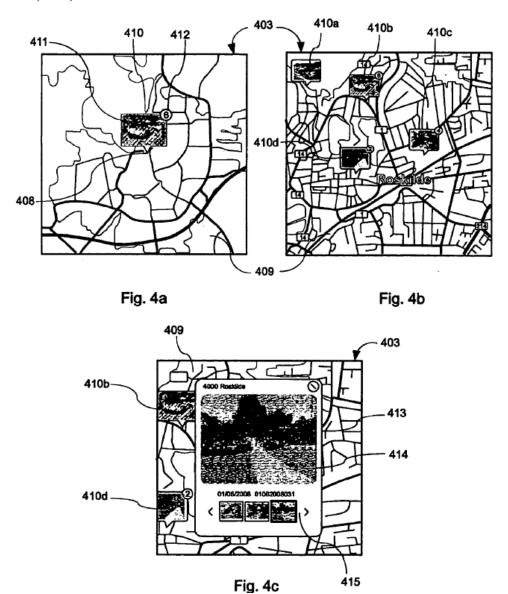


Figure 3.63, above, shows the Information pane of a selected photo. *Id.* The information pane displays the following fields: title; date; time; rating; keyword; kind; size; and description. *Id.*

c) Belitz (Ex. 1008)

Belitz is titled "User Interface, Device and Method for Displaying Special Locations on a Map," and describes a user interface comprising a controller configured to display a map and to display at least one marked location on said map." Ex. 1008, codes (54), (57). Figures 4a, 4b, and 4c are screenshots of a user interface, and are reproduced below. *Id.* ¶ 36.



Figures 4a, 4b, and 4c are screenshots of display 403 of a user interface. *Id.* ¶¶ 51, 55, 60. In the screenshot of display 403 illustrated in Figure 4a, a map 409 is displayed of a town. *Id.* ¶ 51. A location 408 is marked by a graphical object 410. *Id.* The graphical object 410 has a visual representation 411 which is a photograph (*i.e.*, photo) that is associated with the location. *Id.* ¶ 52.

In the screenshot of display 403 illustrated in Figure 4b, the map 408 has been zoomed in showing the area in greater detail. *Id.* ¶ 55. When

displaying the zoomed in map 409, the controller is configured to determine whether the graphical objects overlap or not, and the graphical object 410 displayed in Figure 4a which comprised thirteen other graphical objects has been split up into four graphical objects 410a, 410b, 410c, and 410d. *Id.* ¶ 55.

In the screenshot of display 403 illustrated in Figure 4c, a graphical object 410c has been selected by a user. Id. ¶ 60. A popup window 413 is displayed over or instead of the graphical object 410c. Id. The popup window shows at least some of the visual representations 411 of the graphical object 410c. Id.

d) Ripps (Ex. 1009)

Ripps is titled "Method and System for Generating a Family Tree" and discloses a method and system for generating a graphical output display of a family tree and a graphical output display of a chronological timeline, which are displayed in conjunction with each other. Ex. 1009, codes (54) and (57). Figure 3 depicts an input screen with a set of data being input to a computer program. *Id.* \P 20. Figure 3 is reproduced below.

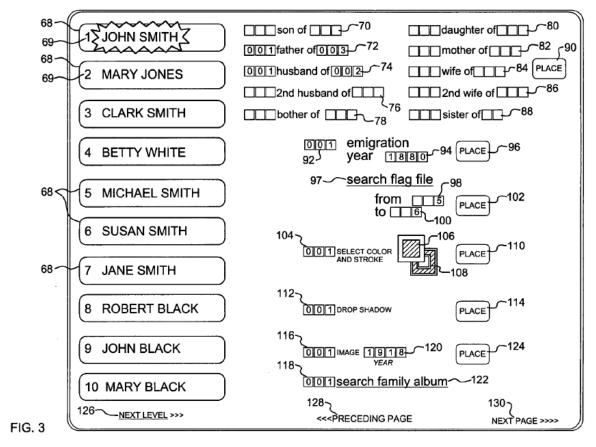


Figure 3, above, shows a data input screen which focus on family relationships and other secondary data. *Id.* ¶ 41. Data describing the family relationships is input into the data input screen. *Id.* $\P41-49$.

Figure 5A depicts another data input screen that includes a family tree that is generated based on the data input into the input screen of Figure 3. *Id.* ¶¶ 22–23, 49–50. Figure 5A is reproduced below.

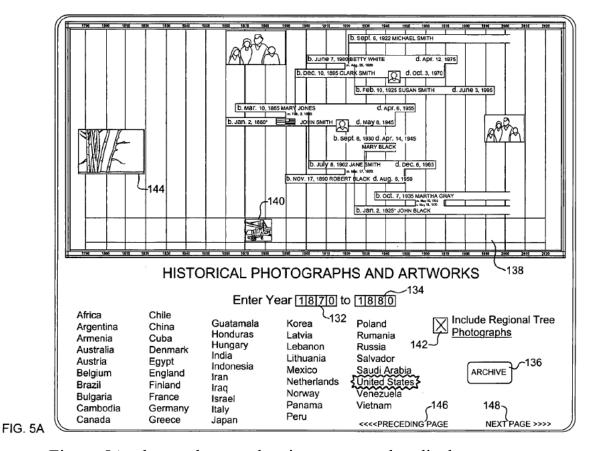


Figure 5A, above, shows a data input screen that displays a constructed timeline chart with a fully constructed family tree. *Id.* ¶ 50. This data input screen allows additional images, in the form of historical photographs and artworks, to be added to the program output. *Id.*

3. Obviousness Based on Pogue and Engst (Ground 1A)

Petitioner contends claims 1–25 and 27–34 are unpatentable under 35 U.S.C. § 103(a) over Pogue and Engst. Pet. 13–83. Claims 1 and 29 are independent and recite substantially similar limitations, with claim 1 directed to a method and claim 29 directed to a system. *See* Ex. 1001, 35:2–54, 37:42–38:35. Claim 1 is representative.

Patent Owner disputes Petitioner's contentions and provides arguments contesting Petitioner's evidence of obviousness, the rationale to combine the teachings of Pogue and Engst, and certain claim limitations.

We first address the issues contested by Patent Owner with respect to the independent claims.

a) Claims 1 and 29 – Contested Limitations

For independent claims 1 and 29, Patent Owner substantively contests Petitioner's evidence and arguments with respect to limitations [1d]/[29f] ("first detail view"), [1f]/[29h] ("second detail view"), [1c]/[29e] ("first person view"), and [1g]/[29i] ("locations view"). See Prelim. Resp. 18–27. We discuss these contested limitation below.

(1) Limitations [1d]/[29f] ("first detail view") and [1f]/[29h] ("second detail view") ³

Claim 1 recites in pertinent part:

[1d] responsive to an input that is indicative of a selection associated with the first digital file, causing a first detail view to be displayed on the interface, the first detail view including (i) the first digital file, (ii) first information associated with the first digital file and (iii) a first map image associated with the first digital file, the first digital file having a first size in the first person view and a second size in the first detail view, wherein the second size is greater than the first size;

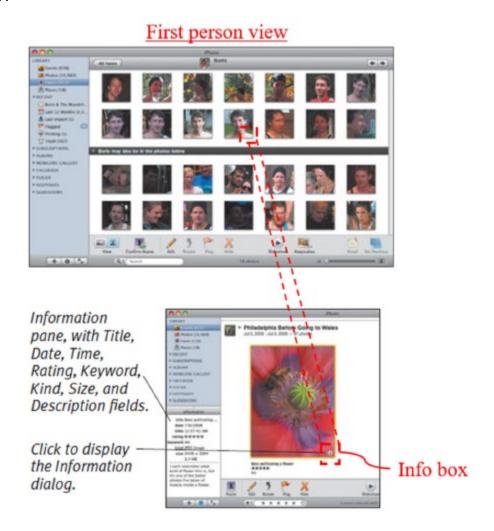
Ex. 1001, 35:15–25.

For this limitation, Petitioner relies on both Pogue and Engst's description of the selection of an "info box" that Petitioner asserts "can serve as an input that is indicative of a selection associated with the first digital file." Pet. 28 (citing Ex. 1005, 88; Ex. 1006, 61; Ex. 1003 ¶ 94). According to Petitioner, "[t]he info box icon 'appears when you wave the mouse over the lower-right corner of *any photo* in the library." Ex. 1005, 88, 103.

³ For limitations [1f]/[29h] ("second detail view"), both Petitioner and Patent Owner rely on the same evidence and arguments provided for limitations [1d]/[29f] ("first detail view"). See Pet. 40, Prelim. Resp. 27.

"Alternatively," Petitioner explains, "a user can 'select one or more photos and choose Get Info . . . from the File menu." Pet. 28 (citing Ex. 1006, 61).

Petitioner provides annotated Figures 4.3 and 3.63 from Engst, shown below.



Petitioner's annotated Figure 4.3 from Engst, shown above on top, is designated by Petitioner as a "First person view" that depicts "all the photos that have been identified as containing that person," according to Petitioner. Pet. 26–27. Petitioner's annotated Figure 3.63 from Engst, shown above on the bottom, depicts an "info box," that "appears when you wave the mouse over the lower-right corner of *any photo* in the library," according to Petitioner. *Id.* at 28 (citing Ex. 1005, 88, 103).

Petitioner explains that "[s]electing the info box in any one of [the] digital files in the first person view causes a first detail view (FIG. 3.62, FIG. 4-14) to be displayed on the interface." *Id.* at 29 (citing Ex. 1006, 61; Ex. 1005, 107; Ex. 1003 \P 96).

Petitioner provides annotated Figures 3.63 and 3.62 from Engst, shown below.



First detail view

Petitioner's annotated Figure 3.62 from Engst, shown above on the bottom, is designated by Petitioner as a "First detail view", and shows a

satellite map along with information about the selected photo, including the digital file ("the first digital file") associated with the info box selected. Pet. 29–30.

According to Petitioner, "[t]he first detail view includes (i) the first digital file, (ii) first information associated with the first digital file, and (iii) a first map image associated with the first digital file." Pet 31. To show this, Petitioner provides Pogue's Figure 4-14 annotated by Petitioner below.



Petitioner's annotated Figure 4-14 from Pogue, above, is designated a "Detail view" and shows, according to Petitioner, a "First digital file," a "First information," and a "First map image." Pet. 31.

According to Petitioner, Pogue's Figure 4-14 includes

the first digital file's name ("Netbun"), date ("January 30, 2009"), rating (five stars), address ("201 Spear St"), and comments ("Harry checks his Twitter feeds") correspond to the claimed first information. [Ex.] 1005, 107; [Ex.] 1006, 61; [Ex.] 1003 ¶ 97. Additionally, the first map image ("a map showing

the location") includes a location pin that corresponds to "201 Spear St," the location associated with the first digital file, e.g., the location where the first digital file was taken. *Id*.

Pet. 31.

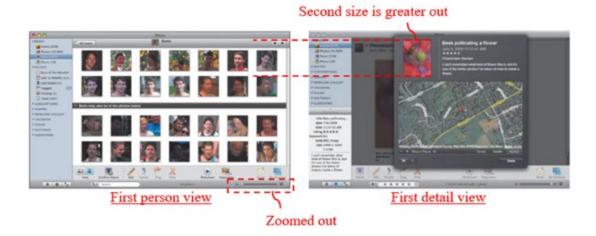
Petitioner concedes that the references do not "expressly teach that a second size (size of the first digital file in the first detail view) is greater than a first size (size of the first digital file in the first person view)." Pet. 32. Petitioner explains, however, that the references describe using "the slider in the bottom-right corner of the iPhoto window to increase or decrease the size and number of headshots in a row." Pet. 32 (citing Ex. 1005, 93, FIG. 4-3; Ex. 1006, 31, FIG. 3.2; Ex. 1003 ¶ 98).

Petitioner further explains that

a user can scroll the slider to the left to further reduce the first size, thereby making it smaller than the second size (if it's not already smaller). *Id.* This would allow the user to, for instance, view a greater number of thumbnail images in the first person view without having to scroll down. *Id.* For example, as shown below, the second size is greater than the first size when the slider in the first person view is adjusted to zoom out ("Drag the slider all the way to the left, and you get micro-thumbnails so small that you can fit hundreds of them in the iPhoto window"). [Ex.] 1005, 42, 93; [Ex.] 1006, 61; [Ex.] 1003 ¶ 98.

Pet. 32–33.

To illustrate, Petitioner provides annotated Figures 4.3 (below left) and 3.62 (below right) from Engst.



Petitioner's annotated Figure 4.3 from Engst (above left) is designated as "First person view" and indicates that the slider is "zoomed out". Petitioner's annotated Figure 3.62, also from Engst, (above right) is designated as "First detail view" and indicates that "Second size is greater out". Pet. 33.

Petitioner also argues that a person of ordinary skill in the art would have found it obvious to display the first digital file in the first detail view to be larger than the thumbnails in the first person view, because, *inter alia*, the first detail view displays a single digital file (the first digital file), as opposed to many thumbnails as in the first person view ("all the photos that have been identified as containing [the first] person"). [Ex.] 1006, 64; [Ex.] 1003 ¶ 99.

Pet. 33.

In addition, Petitioner also argues that

the first detail view provides greater granularity for a user looking for "various bits of information" about the first digital file. [Ex.] 1005, 103; [Ex.] 1003 ¶ 99. Thus, a [person of ordinary skill in the art] would have found it obvious that the second size would be greater than the first size to provide such detailed information. [Ex.] 1003 ¶ 99. In fact, when a large number of images are associated with the first person, a [person of ordinary skill in the art] would have found it obvious for the thumbnail size of the images associated with the first person to be relatively

small to enable presentation of the large number of images in iPhoto's first person view. [Ex.] 1003 ¶ 99. In this case, upon selection of the info box associated with one of the relatively small thumbnails, a [person of ordinary skill in the art] would have found it obvious that the version of the image presented in the pop-up Info Box is presented in a larger size than the relatively small thumbnail selected. [Ex.] 1003 ¶ 99. Indeed, because the pop-up Info Box would occupy a larger area of the interface than the thumbnail images and is directed to providing information about the selected thumbnail image, a [person of ordinary skill in the art] would have found it obvious for the image presented in the Info Box to be larger than the thumbnail in the first person view. [Ex.] 1003 ¶ 99.

Pet. 33–34.

Petitioner's declarant, Dr. Greenspun, testifies that "choosing the size of the first digital file in the first detail view would have been a routine design decision and thus obvious to a [person of ordinary skill in the art]." Ex. 1003 ¶ 100. Dr. Greenspun testifies that "using a larger size image for a detail view upon selection of a thumbnail was well-known and would have been part of a [person of ordinary skill's] general knowledge." *Id.* According to Dr. Greenspun, a person of ordinary skill "would have found it obvious to adjust the display areas in iPhoto's Info Box and display the first digital file larger than a thumbnail from iPhoto's person view," for example, "by reducing the amount of interface space devoted to the map in the first detail view, thereby increasing the size of the first digital file." *Id.*

Patent Owner contests Petitioner's analysis, and argues that "Petitioner's treatment of two individual references, Pogue and Engst, as a single 'iPhoto' reference is improper." Prelim. Resp. 19. Patent Owner also argues that "[t]he Petition's reasoning says no more than that the skilled artisan would have understood that the references could be modified." *Id.* at 22. Patent Owner argues that "[t]he Petition fails because it does not

identify a motivation to modify the prior art references aside from conclusory assertions made with the benefit of hindsight." Prelim. Resp. 22.

In particular, Patent Owner argues that Petitioner's assertion "that choosing a second size greater than the first size 'would have been a routine design decision," is "precisely backwards." Prelim. Resp. 23 (citing Pet. 35–36). Patent Owner argues that "[r]ather than making the second size *larger*, per the claims, a [person of ordinary skill in the art] reviewing Pogue and Engst would have been encouraged to make the second size *smaller* (*i.e.*, take up less UI real-estate on the limited detail view) to provide more of the 'various bits of information' for the image such as the image title, date, time, location, rating, etc." *Id.* (citing Ex. 1005, 119; Ex. 2001 ¶ 75).

Patent Owner further argues that a person of ordinary skill in the art "would not have chosen to waste valuable user interface space presenting a larger version of the same image," and that "iPhoto already has a functionality for viewing an enlarged version of a selected image." Prelim. Resp. 24 (citing Ex. 2001 ¶¶ 75, 77–79, 81). Because "a user could have navigated from the purported first person view directly into the enlarged image in iPhoto '09, a [person of ordinary skill in the art] would have known that the purported detail view would have been intended to show the other 'various bits of information,' rather than simply provide a more detailed view of the same image that could be viewed in better detail via the same interface." Prelim. Resp. 26 (citing Ex. 2001 ¶ 80).

With respect to Patent Owner's argument that "Petitioner's treatment of two individual references, Pogue and Engst, as a single 'iPhoto' reference is improper," Petitioner explains that "Pogue and Engst describe the exact same digital photograph software developed by Apple—namely iPhoto '09—and its features include organizing digital image files by criteria, such

as 'Faces' and 'Places.'" Pet. 17–18 (citing Ex. 1005, 2, 89, 93, 110; Ex. 1006, 2, 30, 64, 72; Ex. 1003 ¶ 77). Petitioner also explains that "descriptions of the references and combinations thereof are incorporated into each mapping that includes citations to these references." Pet. 13, n.5.

Although the Petition collectively refers to Pogue and Engst as "iPhoto '09" or "iPhoto", the Petition nonetheless provides specific citations to each of the references to indicate which reference the Petition is relying on to support a particular proposition. *See, e.g.*, Pet. 20 (citing to Ex. 1005 ("Pogue"), pages 46, 59, 93, 97, 110 and Ex. 1006 ("Engst"), pages 30–31, 64, as support for the recited "*search-filter view*"). Petitioner's declarant, Dr. Greenspun, also explains that "[b]ecause Pogue and Engst both describe iPhoto '09, this overview relies on citations to both of Pogue and Engst as evidence of iPhoto '09's operation. Ex. 1003 ¶ 74.

We are, therefore, able to understand and follow the Petition's citations to the individual references, Pogue (Ex. 1005) and Engst (Ex. 1006), and are not confused by the Petition's use of the terms "iPhoto '09" or "iPhoto" to collectively refer to Pogue and Engst.

With respect to Patent Owner's other argument, that the Petition "does not identify a motivation to modify the prior art," we disagree with Patent Owner. For purposes of obviousness, a reason to combine teachings from the prior art "may be found in explicit or implicit teachings within the references themselves, from the ordinary knowledge of those skilled in the art, or from the nature of the problem to be solved." *WMS Gaming Inc. v. Int'l Game Tech.*, 184 F.3d 1339, 1355 (Fed. Cir. 1999) (citing *In re Rouffet*, 149 F.3d 1350, 1357 (Fed. Cir. 1998)). Indeed, "[u]nder the correct [obviousness] analysis, any need or problem known in the field of endeavor at the time of invention and addressed by the patent can provide a reason for

combining the elements in the manner claimed." KSR Int'l Co. v. Teleflex Inc., 550 U.S. 398, 420 (2007).

Here, Petitioner argues that Pogue and Engst "describe the same iPhoto '09 software, thereby providing a [person of ordinary skill in the art] with an express motivation to combine their teachings as a single, comprehensive documentation describing the various features of iPhoto '09. The publications thus detail various aspects of the iPhoto '09 software and provide an explicit motivation to combine." Pet. 18 (citing [Ex.] 1003 ¶ 77). Petitioner argues that a person of ordinary skill in the art "would have understood each of these publications as detailing the various features of the same iPhoto '09 software, and therefore would have been motivated to combine the teachings of Pogue and Engst and consider their teachings together." Pet. 19 (citing [Ex.] 1003 ¶ 78).

Petitioner also argues that a person of ordinary skill in the art "(e.g., an employee of a competitor or a potential customer) would have been motivated to learn as much as possible about the iPhoto '09 software for competitive intelligence, customer acceptance, usability, and/or other reasons relevant to those persons." *Id.* Petitioner further argues that "because iPhoto '09 did not include an official manual from Apple, a [person of ordinary skill in the art] would have been motivated to seek out multiple descriptions of the iPhoto '09 software and would have found it obvious to consider the teachings of Pogue and Engst together. *Id.* Petitioner's arguments are supported by Dr. Greenspun's testimony. *See* Ex. 1003 ¶¶ 77–78.

With respect to Patent Owner's argument that Petitioner has it "precisely backward" that choosing a greater second size for the digital file shown in the first detail view than shown in the first person view would have

been a routine design decision, Petitioner provides a reasoned explanation for why a person of ordinary skill in the art would have made such a choice. Petitioner explains that "the first detail view displays a single digital file (the first digital file), as opposed to many thumbnails as in the first person view ('all the photos that have been identified as containing [the first] person')." Pet. 33 (citing Ex. 1006, 64; Ex. 1003 ¶ 99).

Petitioner also explains that the first detail view provides greater granularity for a user looking for information about the first digital file. Pet. 33–24 (citing Ex. 1005, 103; Ex. 1003 ¶ 99). According to Petitioner, "when a large number of images are associated with the first person, a [person of ordinary skill in the art] would have found it obvious for the thumbnail size of the images associated with the first person to be relatively small to enable presentation of the large number of images in iPhoto's first person view." Pet. 34 (citing Ex. 1003 ¶ 99). Petitioner explains that "the version of the image presented in the pop-up Info Box is presented in a larger size than the relatively small thumbnail selected . . . because the pop-up Info Box would occupy a larger area of the interface than the thumbnail images and is directed to providing information about the selected thumbnail image." Pet 34. (citing Ex. 1003 ¶ 99). Petitioner's arguments are supported by Dr. Greenspun's testimony. *See* Ex. 1003 ¶ 98–100.

Although Patent Owner provides an alternative point of view and argues that Petitioner is incorrect, in our view, Petitioner's arguments and evidence are sufficient to show that a person of ordinary skill in the art would have had adequate reasons for combining Pogue and Engst in the manner described in the Petition and for making the design choices that Petitioner argues.

Based on the arguments and evidence of record, we determine that Petitioner has shown sufficiently for purposes of institution that Pogue and Engst meet limitations [1d]/[29f] ("first detail view") and [1f]/[29h] ("second detail view") of the '823 Patent. We also find that Petitioner has shown sufficiently that a person of ordinary skill in the art would have had adequate reasons for combining Pogue and Engst in the manner described in the Petition.

(2) Limitations [1c]/[29e] ("first person view") and [1g]/[29i] ("locations view")

Limitation [1c] recites "responsive to an input that is indicative of a selection associated with the first person, causing a first person view to be displayed on the interface, the first person view including a first digital file associated with the first person."

For this limitation, Petitioner explains that

iPhoto describes an input that is indicative of a selection associated with the first person. For example, in iPhoto, a user can "double-click a person's snapshot to display all the photos that have been identified as containing that person." [Ex.] 1006, 64; [Ex.] 1003 ¶ 92. In this example, the "double-click" of the person's snapshot is the input that is indicative of a selection associated with the first person and, responsive to this input, iPhoto causes a first person view to be displayed on the interface, which includes "all the photos that have been identified as containing that person." *Id*.

The first person view also includes a first digital file associated with the first person. For example, selecting Tonya's snapshot in the people view causes a first person view of all the photos associated with Tonya—e.g., all photos in which Tonya appears—on the interface. [Ex.] 1006, 64; [Ex.] 1003 ¶ 93. Of course, the same concept holds true for all other people shown in the people view. Id. In this way, as illustrated below in FIGS. 4.2 and 4.3 below, iPhoto receives a selection of a first person from

the people view and then displays a first person view that includes digital files associated with the first person. *Id*.

Pet. 26.

Limitation [1g] recites "responsive to a second input within the search-filter view, causing the interface to display a locations view including a first name associated with a first location, and a second name associated with a second location."

For this limitation, Petitioner explains that

iPhoto describes a second input within the search-filter view. For example, selection of the "Places" tab in the source pane is the second input that causes the interface to display a locations view. [Ex.] 1005, 110; [Ex.] 1003 ¶ 105. The locations view includes a first name associated with a first location and a second name associated with a second location.

iPhoto describes a panel within the locations view: "the column farthest to the left has the big overall location: the individual countries where you have tagged photos. As you move to the right, countries get divided into states or provinces, which get narrowed down to cities or towns." [Ex.] 1005, 109. As shown in FIG. 4-16, for example, "Mississippi" is the first name associated with the first location (which can be narrowed down further to "Lighthouse"), and "Pennsylvania" is the second name associated with the second location. [Ex.] 1005, 110; [Ex.] 1003 ¶ 106.

Pet. 41.

For these two limitations, Patent Owner argues that

Petitioner's mixing and matching of Pogue and Engst for different claim elements fails under this standard. For example, in relation to the *first person view* of limitation [1c], the Petition relies exclusively on Engst. Petition, pp. 26-27 (citing [Ex.] 1006). Yet, in relation to the *locations view* of limitation [1g], Petitioner relies exclusively on Pogue. *Id.*, pp. 40-41 (citing [Ex.] 1005). While Petitioner generally claims that Pogue and Engst can be combined, nowhere does Petitioner attempt to

establish that a [person of ordinary skill in the art] would have combined Engst's *first person view* (limitation [1c]) with Pogue's *locations view* (limitation 1[g]).

Prelim. Resp. 19 (quoting *Unigene Labs., Inc. v. Apotex, Inc.*, 655 F.3d 1352, 1360 (Fed. Cir. 2011) ("Obviousness requires the additional showing that a person of ordinary skill at the time of the invention would have selected and combined those prior art elements.").

We disagree with Patent Owner. Here, Petitioner argues that a person of ordinary skill in the art would have found it obvious to combine Pogue and Engst because "Pogue and Engst describe the exact same digital photograph software developed by Apple—namely iPhoto '09—and its features include organizing digital image files by criteria, such as 'Faces' and 'Places.'" Pet. 17–18 (citing Ex. 1005, 2, 89, 93, 110; Ex. 1006, 2, 30, 64, 72; Ex. 1003 ¶ 77). Petitioner points out that both Pogue and Engst indicate that their publication was intended to serve as the manual for Apple's iPhoto '09 software. *See* Ex. 1005, 2-4 ("This book was born to serve as the iPhoto ['09] manual."); *see also* Ex. 1006, 1 (Explaining that this book is meant to serve as the "manual iPhoto ['09] lacks."); Ex. 1003 ¶ 77.

Petitioner goes on to explains that

Pogue and Engst describe the same iPhoto '09 software, thereby providing a [person of ordinary skill in the art] with an express motivation to combine their teachings as a single, comprehensive documentation describing the various features of iPhoto '09. [Ex.] 1003 ¶ 77. The publications thus detail various aspects of the iPhoto '09 software and provide an explicit motivation to combine.

Pet. 18.

Petitioner concludes that "[f]or these reasons, a [person of ordinary skill in the art] would have understood each of these publications as detailing the various features of the same iPhoto '09 software, and therefore would have been motivated to combine the teachings of Pogue and Engst and consider their teachings together. Ex. 1003 ¶ 78. Petitioner's arguments directed to a rationale for combining Pogue and Engst are supported by the testimony of Dr. Greenspun. *See* Ex. 1003 ¶¶ 77–78.

Based on the arguments and evidence of record, we determine that Petitioner has shown sufficiently for purposes of institution that Pogue and Engst meet limitations [1c]/[29e] and [1g]/[29i] of the '823 Patent. We also find that Petitioner has sufficiently shown that a person of ordinary skill in the art would have had adequate reasons for combining Pogue and Engst in the manner described in the Petition.

b) Claims 1 and 29 - Uncontested Limitations⁴

Patent Owner does not substantively contest Petitioner's evidence and arguments directed to the following portions of independent claims 1 and 29: [1pre]/[29pre] ("preamble"), [29a] ("storage medium"), [29b] ("processors"), [1a]/[29c] ("search-filter view), [1b]/[29d] ("people view"), [1e]/[29g] ("second person view"), [1h]/[29j] ("first set digital files"), and [1i]/[29k] ("second set digital files"). See Prelim. Resp. 18–27. We summarize Petitioner's evidence and arguments with respect to these limitations below.

⁴

⁴ Although we use the general term "limitation" to identify the portions of independent claims 1 and 29, including the preambles, we make no determination as to whether the preambles of these claims are limiting.

(1) [1pre]/[29pre] ("preamble")

The preamble of independent claim 1 recites: "[a] method comprising." The preamble of independent claim 29 recites: "[a] digital file storage system comprising."

For the preamble of claim 1, Petitioner directs us to Engst, which, according to Petitioner "describes a method of 'organizing and keeping track of all these photos' including 'software to help you import, organize, edit, and share your photos." Pet. 19 (citing Ex. 1006, 1; Ex. 1003 ¶ 85).

For the preamble of claim 29, Petitioner directs us to Pogue, which, according to Petitioner, "describes a digital file storage system, e.g., "a Mac that has a G4, G5, or Intel chip, Mac OS X 10.5.6 or later, and 1 gigabyte of memory or more." Pet. 79 (citing Ex. 1005, 10; Ex. 1003 ¶ 154). "The Mac also includes a hard drive as part of iPhoto's digital file storage system." *Id*.

Patent Owner does not present evidence or arguments specifically directed to Petitioner's assertions about the preambles of claim 1 and 29. *See generally* Prelim. Resp.

Based on the preliminary record, we are persuaded that Petitioner has demonstrated sufficiently that Pogue and Engst meet the preambles of independent claims 1 and 29.

(2) [29a] ("storage medium")

Limitation [29a] recites "a non-transitory computer-readable storage medium storing a plurality of digital files and instructions."

For this limitation, Petitioner first directs us to Pogue, which according to Petitioner, explains how one can "[u]se this command to add photos to your iPhoto Library from your hard disk, a CD, or some other disk." Pet. 80 (citing Ex. 1005, 338). Petitioner then argues that "[a] Mac's 'hard disk' that 'stores images' or 'hard drive' where 'the photos are safe' is

a non-transitory storage medium that stores a plurality of digital files." Pet. 80 (citing Ex. 1005, 16; Ex. 1006, 11; Ex. 1003 ¶ 155). Petitioner argues that "iPhoto describes that iPhoto runs on the Mac, thus the Mac's hard drive includes the instructions to run iPhoto." Pet. 80. "Moreover," Petitioner argues, "the Mac's memory as discussed at [29pre] includes instructions that run the iPhoto software, and the memory is a part of the non-transitory computer-readable storage medium." *Id.* (citing Ex. 1003 ¶ 155).

Patent Owner does not present evidence or arguments specifically directed to Petitioner's assertions about limitation [29a] ("storage medium"). See generally Prelim. Resp.

Based on the preliminary record, we are persuaded that Petitioner has demonstrated sufficiently that Pogue and Engst meet limitation [29a].

Limitation [29b] recites "one or more processors configured to execute the instructions to:"

For this limitation, Petitioner cites to both Pogue and Engst and points out that "iPhoto describes one or more processors, e.g., 'a G4, G5, or Intel chip,' configured to execute the instructions, e.g., 'to run iPhoto.'" Pet. 80 (citing Ex. 1005, 10; Ex. 1006, 2; Ex. 1003 ¶ 156).

Patent Owner does not present evidence or arguments specifically directed to Petitioner's assertions about limitation [29b] ("processors"). See generally Prelim. Resp.

Based on the preliminary record, we are persuaded that Petitioner has demonstrated sufficiently that Pogue and Engst meet limitation [29b].

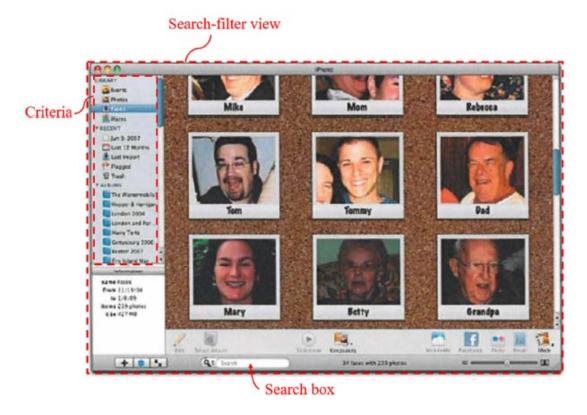
(4) [1a]/[29c] ("search-filter view")

Limitation [1a] recites "causing an interface to display a search-filter view, the search-filter view permitting a user to filter a plurality of digital files based on one or more criteria."

For this limitation, Petitioner explains that

iPhoto describes causing an interface to display a search-filter view. For example, as shown below, iPhoto's interface permits a user to filter a plurality of digital files based on multiple criteria, e.g., 'Events,' 'Faces,' 'Places,' and 'Albums.'" [Ex.] 1005, 46, 59, 93, 97, 110; [Ex.] 1006, 30-31, 64; [Ex.] 1003 ¶ 86. Among the criteria, the 'Faces' tab in the source pane 'analyzes your photos and groups your collections based on the people who are in them.' [Ex.] 1005, 2; [Ex.] 1003 ¶ 86.

Pet. 20.
Petitioner provides an annotated version of Pogues' Figure 4-3, below.



Petitioner's annotated version of Pogues' Figure 4-3, above, is designated by Petitioner as "search-filter view", and depicts a computer software display window showing several photographs of people's faces with a vertical listing of "criteria" along the left-hand side of the window. Pet. 20 (citing Ex. 1005, Figure 4-3).

Petitioner also explains that "[i]n addition to filtering by 'Faces,' iPhoto's search-filter view permits a user to filter based on location, event, and album." Pet. 21 (citing Ex. 1005, 46, 59, 110; Ex. 1003 ¶ 87). Petitioner explains that "[i]n addition to filtering, iPhoto describes a 'Search box below the window,' where a user can search 'the Event, album, folder, or whatever." Pet. 23 (citing Ex. 1006, 94–95; Ex. 1003 ¶ 88).

Petitioner argues that "[b]y providing filter functionality and search functionality as discussed above, iPhoto's interface is caused to provide a search-filter view." Pet. 24 (citing Ex. 1003 ¶ 89). "In addition," Petitioner points out that "iPhoto's search-filter view permits a user to filter a plurality of digital files based on one or more criteria (e.g., Events, Faces, Places, and Albums)." *Id*.

Patent Owner does not present evidence or arguments specifically directed to Petitioner's assertions about limitations [1a]/[29c] ("search-filter view"). See generally Prelim. Resp.

Based on the preliminary record, we are persuaded that Petitioner has demonstrated sufficiently that Pogue and Engst meet limitations [1a]/[29c].

Limitation [1b] recites "responsive to a first input within the search-filter view, causing the interface to display a people view including a first image associated with a first person and a second image associated with a second person."

For this limitation, Petitioner explains that "iPhoto describes a first input within the search-filter view, for example an input selecting the 'Faces' tab." Pet. 24 (citing Ex. 1005, 2, 89; Ex. 1006, 30). "Responsive to selection of the 'Faces' tab in the source pane," Petitioner explains, "iPhoto causes the interface to display a people view (referred to as the 'Faces corkboard')." Pet. 25 (citing Ex. 1006, 64; Ex. 1003 ¶ 90). "For example," Petitioner points out, "iPhoto allows a user to 'Click Faces in the source pane to display the Faces corkboard, which shows a snapshot for each person you've named (Figure 4.2)." *Id*.

Petitioner explains that

iPhoto's people view includes a first image associated with a first person and a second image associated with a second person. For example, a thumbnail of Tonya can be the first image associated with a first person (Tonya), and a thumbnail of Truck can be the second image associated with a second person (Truck).

Pet. 25 (citing Ex. 1003 ¶ 91).

Patent Owner does not present evidence or arguments specifically directed to Petitioner's assertions about limitations [1b]/[29d] ("people view"). See generally Prelim. Resp.

Based on the preliminary record, we are persuaded that Petitioner has demonstrated sufficiently that Pogue and Engst meet limitations [1b]/[29d].

(6) [1e]/[29g] ("second person view")

Limitation [1e] recites "responsive to an input that is indicative of a selection associated with the second person, causing a second person view to be displayed on the interface, the second person view including a second digital file associated with the second person."

For this limitation, Petitioner incorporates its evidence and arguments for limitations [1b] and [1c]. Pet. 36. Petitioner also explains that

iPhoto describes an input that is indicative of a selection associated with the second person, e.g., double-clicking a second person's snapshot in the people view. [Ex.] 1006, 64; [Ex.] 1003, ¶ 102. Any one of the person's snapshots in the people view is a second image associated with a second person that is different than the first person referenced in [1c]. *Id.* Furthermore, a [person of ordinary skill in the art] would have found it obvious that operations applied to a first image associated with a first person (as discussed at [1c]) are equally applicable to a second image associated with a second person, including causing a second person view to be displayed on the interface. *Id.*

Pet. 37–38.

Patent Owner does not present evidence or arguments specifically directed to Petitioner's assertions about limitations [1e]/[29g] ("second person view"). See generally Prelim. Resp.

Based on the preliminary record, we are persuaded that Petitioner has demonstrated sufficiently that Pogue and Engst meet limitations [1e]/[29g].

Limitation [1h] recites "responsive to an input that is indicative of a selection associated with the first location, causing a first set of digital files to be displayed on the interface, each digital file in the first set of digital files being associated with the first location."

For this limitation, Petitioner explains that

iPhoto describes an input that is indicative of a selection associated with the first location. For example, 'to see all the photos you've taken in the United States, for example, click United States in the left column.' [Ex.] 1005, 109. A user may click 'the state's name' to 'see all the photos taken in a particular state,' which represents a selection associated with the first location (e.g., 'Mississippi' as discussed at [1g]). *Id.*; [Ex.] 1003 ¶ 107.

Pet. 42.

Petitioner also explains that

iPhoto describes causing a first set of digital files to be displayed on the interface: 'The photos from each set appear in the iPhoto window, so you can see them as you click through the columns.' [Ex.] 1005, 110. Each digital file in the first set of digital files is associated with the first location, e.g., 'all the photos taken in a particular state.' [Ex.] 1005, 109; [Ex.] 1003 ¶ 108.

Patent Owner does not present evidence or arguments specifically directed to Petitioner's assertions about limitations [1h]/[29j] ("first set digital files"). See generally Prelim. Resp.

Based on the preliminary record, we are persuaded that Petitioner has demonstrated sufficiently that Pogue and Engst meet limitations [1h]/[29j].

(8) [1i]/[29k] ("second set digital files")

Limitation [1i] recites "responsive to an input that is indicative of a selection associated with the second location, causing a second set of digital files to be displayed on the interface, each digital file in the second set of digital files being associated with the second location."

For this limitation, Petitioner incorporates its arguments and evidence for limitation [1h]. Pet. 43. Petitioner also explains that

iPhoto describes multiple locations because multiple locations are displayed in the columns in the locations view; any one of the locations (e.g., as annotated below) displayed in the column is a second location, as long as it is different from a first location (e.g., 'Mississippi'). [Ex.] 1005, 109–110; [Ex.] 1003 ¶ 109. A [person of ordinary skill in the art] would have found it obvious that, similar to how the first set of digital files is displayed on the interface, a second set of digital files associated with the second location is displayed on the interface. *Id*.

Pet. 43.

Patent Owner does not present evidence or arguments specifically directed to Petitioner's assertions about limitations [1i]/[29k] ("second set digital files"). See generally Prelim. Resp.

Based on the preliminary record, we are persuaded that Petitioner has demonstrated sufficiently that Pogue and Engst meet limitations [1i]/[29k].

(9) Summary of Uncontested Limitations of Independent Claims 1 and 29

Petitioner's arguments and evidence directed to these uncontested limitations are supported by the testimony of Dr. Greenspun. *See* Ex. 1003 ¶¶ 85–93, 101–109, 154–158, 161, 164–165. Patent Owner does not substantively dispute Petitioner's arguments and evidence directed to these uncontested limitations. *See* Prelim. Resp. 18–27. After considering the arguments and evidence of record, we determine that Petitioner has shown sufficiently for purposes of institution that Pogue and Engst meet the uncontested limitations of independent claims 1 and 29 of the '823 Patent.

c) Conclusion on Independent Claims 1 and 29

We have considered the evidence and arguments with respect to Petitioner's assertions that Pogue and Engst meet the limitations of independent claims 1 and 29, as well as the relevant testimonial evidence of Drs. Greenspun and Reinman. Based on this preliminary record, we are persuaded that Petitioner has demonstrated sufficiently that Pogue and Engst meet the limitations of independent claims 1 and 29 and that a person of ordinary skill in the art would have had reason to combine the teachings of the asserted art in the manner described in the Petition.

d) Dependent Claims 2-25, 27-28, and 30-34

Petitioner challenges dependent claims 2–25, 27–28, and 30–34 as obvious over Pogue and Engst. *See* Pet. 44–79, 82–83. Petitioner's

arguments and evidence directed to these dependent claims are supported by the testimony of Dr. Greenspun. *See* Ex. 1003 ¶¶ 110–153, 166–172.

Patent Owner does not substantively dispute Petitioner's arguments and evidence directed to these dependent claims other than to argue that "[b]ecause Petitioner has failed to show that Pogue and Engst render obvious independent claims 1 or 29, it also fails to meet its burden for the dependent claims. Prelim. Resp. 27 (citing *Callaway Golf Co. v. Acushnet Co.*, 576 F.3d 1331, 1344 (Fed. Cir. 2009)).

We have considered the evidence and arguments with respect to Petitioner's assertions that Pogue and Engst meet the limitations of dependent claims 2–25, 27–28, and 30–34, as well as the relevant testimonial evidence of Drs. Greenspun and Reinman. Based on this preliminary record, we are persuaded that Petitioner has demonstrated sufficiently that Pogue and Engst meet the limitations of these dependent claims and that a person of ordinary skill in the art would have had reason to combine the teachings of the asserted art in the manner described in the Petition.

4. Obviousness Based on Pogue, Engst, Belitz, and Ripps (Grounds 1B and 1C)

Petitioner asserts claim 26 is unpatentable as obvious under 35 U.S.C. § 103 over Pogue, Engst, and Belitz. Pet. 83–89. Petitioner also asserts claims 12–14 are unpatentable as obvious under 35 U.S.C. § 103 over Pogue, Engst, and Ripps. Pet. 89–94.

Patent Owner disputes these assertions in general terms, arguing that "for at least the reasons set forth above showing that Pogue and Engst do not teach or render obvious limitation [1d], the Petition fails to meet its burden as to claim 26 [and claims 12–14]." Prelim. Resp. 27–28.

We have considered the evidence and arguments with respect to Petitioner's assertions that the teachings of Pogue, Engst, Belitz, and Ripps meet the limitations of challenged claims 12–14 and 26, as well as the relevant testimonial evidence of Drs. Bederson and Reinman. Based on this preliminary record, we are persuaded that Petitioner has demonstrated sufficiently that the asserted prior art meets the limitations of these claims and that a person of ordinary skill in the art would have had reason to combine the teachings of the asserted art in the manner described in the Petition.

III. CONCLUSION

For the foregoing reasons, we are persuaded that the Petition demonstrates that it is more likely than not that at least one of the challenged claims of the '823 Patent is unpatentable.

IV. ORDER

In consideration of the foregoing, it is hereby

ORDERED that a post-grant review is instituted as to all challenged claims on the grounds raised in the Petition; and

FURTHER ORDERED that a post-grant review is instituted commencing on the entry date of this Order, and pursuant to 35 U.S.C. § 324(c) and 37 C.F.R. § 42.4, notice is hereby given of the institution of a trial.

FOR PETITIONER:

Walter Renner
Jeremy Monaldo
Hyun Jin In
axf-ptab@fr.com
jjm@fr.com
in@fr.com

FOR PATENT OWNER:

Jennifer Hayes
George Dandalides
Matthew Werber
jenhayes@nixonpeabody.com
gdandalides@nixonpeabody.com
mwerber@nixonpeabody.com