NOTE: This disposition is nonprecedential.

United States Court of Appeals for the Federal Circuit

APPLE INC.,
Appellant

v.

MEMORYWEB, LLC,
Cross-Appellant

2023-2361, 2024-1043, 2024-1050, 2024-1318, 2024-1320

Appeals from the United States Patent and Trademark Office, Patent Trial and Appeal Board in Nos. IPR2022-00031, IPR2022-00032, IPR2022-00033, PGR2022-00006.

Decided: December 5, 2025

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Before TARANTO, SCHALL, and STARK, *Circuit Judges*.

TARANTO, *Circuit Judge*.

Apple Inc. asked the Patent and Trademark Office (PTO) to institute reviews—three inter partes reviews (IPRs) and one post-grant review (PGR)—of four patents in a family of patents owned by MemoryWeb, LLC. The four patents—U.S. Patent Nos. 9,552,376, 10,423,658, 10,621,228, and 11,017,020—claim computer-implemented methods for organizing and displaying digital images. In its four petitions, one for each patent, Apple challenged all claims. It challenged claims 6, 7, 38, and 39 of the '020 patent on written-description grounds (in the PGR), but otherwise it challenged all claims in the four patents as unpatentable for obviousness over the Aperture 3 User Manual (A3UM), a manual for Apple's Aperture digital image management software, either alone or in combination with other prior art. The obviousness rulings are before us.

The PTO's Patent Trial and Appeal Board (Board), after instituting the requested reviews, agreed with the written-description challenge (not appealed here) and otherwise held as follows. It held unpatentable for obviousness (1) all nineteen claims of the '228 patent, (2) all fifteen claims of the '658 patent, and (3) claims 1–5, 8–12, 17–37, 40–44, and 49–59 of the '020 patent. The Board, however, rejected Apple's challenge to all twelve claims of the '376 patent. It also rejected Apple's obviousness challenge to eight claims of the '020 patent (claims 13–16 and 45–48).

Apple appeals with respect to the claims upheld in the '376 IPR and '020 PGR. MemoryWeb cross-appeals the Board's '020 PGR decision respecting all claims held unpatentable for obviousness, the '228 IPR's unpatentability holding for claim 15, and the '658 IPR's unpatentability holdings for claims 3–4 and 8–12. We reject all the parties' challenges but one. The exception is for claims 13–16 and

45–48 of the '020 patent, for which the Board ruled that Apple's petition insufficiently presented an argument regarding the "second map image" claim element. We hold that the Board abused its discretion in that ruling, because the petition unambiguously duplicated, for those claims, its obviousness theory for a nearly identical "first map image" limitation, and the Board necessarily concluded that the petition's presentation for the "first map image" limitation was sufficient. Thus, for those eight claims, we vacate the Board's decision in the '020 PGR and remand for further proceedings. We affirm the remaining challenged rulings of the Board in all four decisions.

I

A

All four of the patents involved in this appeal belong to the same family, sharing a specification; we generally use the '376 patent for specification citations. The '020 patent and the '228 patent are both continuations of U.S. Patent No. 11,163,823, not at issue here, though involved in a companion appeal argued to our panel on the same day as this case. *See generally MemoryWeb, LLC v. Samsung Electronics Co., Ltd.*, No. 24-1322 (Fed. Cir. _____). The '823 patent is a continuation of the '658 patent, itself a continuation of the '376 patent. Each patent is titled "Method and Apparatus for Managing Digital Files," and they all relate to methods for organizing, displaying, and navigating displays of digital imagery. *See*, *e.g.*, '376 patent, col. 1, line 64 through col. 2, line 48. The specification discloses interface designs for user-accessible computer applications for management of digital images, emphasizing what it calls "application views" or "views," depicted as exemplary screen captures of what a user might see while navigating the application. *Id.*, col. 8, line 59 through col. 9, line 22; *e.g.*, *id.*, figs. 1–7 and col. 6, lines 4–26 (describing views depicted in figures 1–7). The different views have names suggestive of the information contained or emphasized in

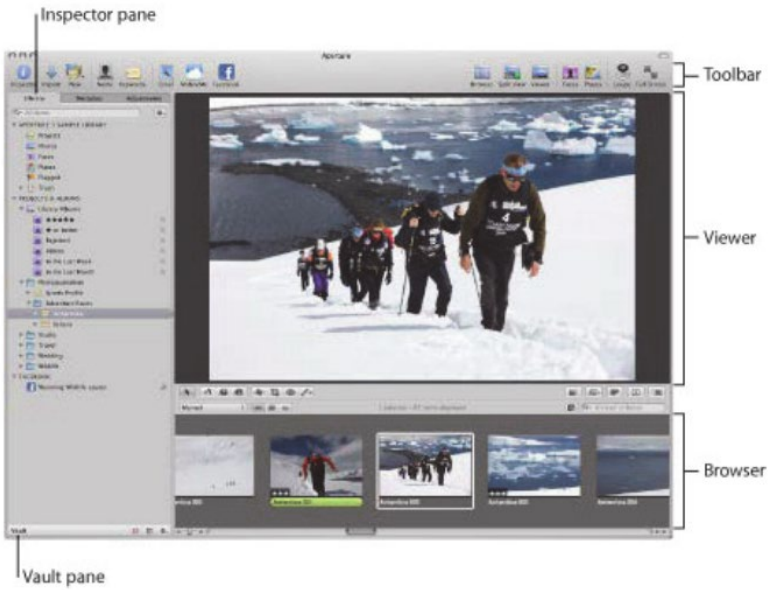
each view, such as "location view" for a view with an interactive map. *See id.*, col. 6, lines 14–19; fig. 5. A user can navigate from one view to another according to defined relationships among the different views. For example, from a "people view" displaying thumbnail images of different people, a user can click one such image to access a "people profile view" with biographical information about the person depicted. *Id.*, col. 6, lines 20–26; figs. 6–7.

B

Apple filed four petitions to the Board in late 2021 seeking institution of three IPRs (of the '376, '658, and '228 patents) and one PGR (of the '020 patent), each petition challenging all claims of the corresponding patent. In all its petitions, Apple asserted that the challenged claims would have been obvious over A3UM, either alone (in the PGR of the '020 patent) or in combination (in the '376, '658, and '228 IPRs). The other reference relevant here is U.S. Patent Application Publication No. 2010/0058212 (Belitz), which discloses using thumbnail images as markers on a map.

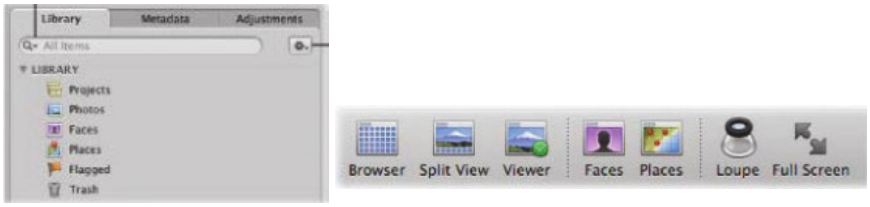
A3UM, the first relevant reference, is a user manual for Apple's Aperture 3 software, a program for managing digital images. Three functionalities of Aperture are relevant on appeal, each a screen within the program displaying specified information about digital images: They are called "Split View" (which displays a large image selected from a collection of smaller images), "Places" (which displays location information about photographs on a map), and "Faces" (which displays thumbnail photos of people). The Aperture user interface, when navigating among Split View, Faces, and Places, has two static elements: a toolbar along the top of the screen, and an "inspector pane" running vertically along the lefthand side of the screen (both of which can be hidden by the user). J.A. 2507, 2516–26;

see J.A. 2515, 3528. Here is an example of Aperture's Split View, with the inspector pane and toolbar:

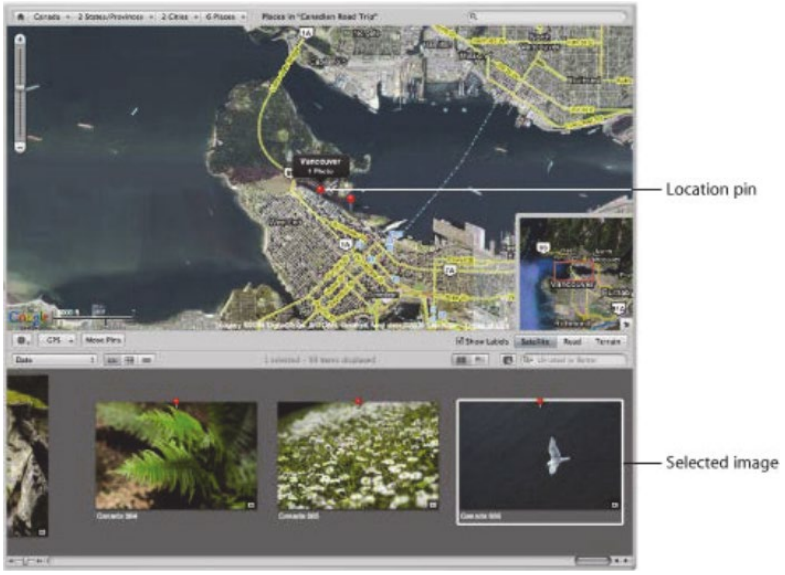


J.A. 2507 (annotations in original). Split View combines two other functionalities of Aperture—called "Viewer" and "Browser"—in one window. J.A. 2507, 2513. Viewer displays a large version of an image, and Browser displays small thumbnail versions of many images; when in Split View, clicking a Browser thumbnail will display that image in larger format in Viewer. *See* J.A. 2675, 2712.

A user can navigate to Places or Faces using the buttons on the toolbar and inspector pane, shown here:



J.A. 2516 (inspector pane, left); 2526 (toolbar, right). Places allows a user "[t]o view the location information for an image or a group of images." J.A. 2896. Its interface looks like Split View, of which a Browser view is a portion, but what is displayed is not a large version of a photo but an interactive map with pins marking locations associated with images. *See* J.A. 2897. In Places, unlike in Split View, clicking an image in the Browser portion will cause a location label and other information to appear above the associated pin on the interactive map. J.A. 2896 Here is an example of the Places interface once a Browser image has been selected (with the inspector pane and toolbar cropped out):



J.A. 2897. (annotations in original).

Faces categorizes and displays thumbnail photographs of people with a name associated with each image. J.A. 2879–80. Here is an example of Faces:

J.A. 2490. Selecting one of the thumbnail images will cause other images of the same person to be displayed, while the toolbar and inspector pane remain in the same positions. *See* J.A. 2490, 2885.

Belitz, the other relevant reference in this appeal, is titled "User Interface, Device and Method for Displaying Special Locations on a Map." J.A. 3584. The pertinent feature of Belitz is its disclosure of a map interface with overlaid thumbnail images associated with certain locations on the map. *Id.* (Abstract). A given thumbnail image itself is associated with a set of images, and clicking the thumbnail image causes a "popup window" to appear, displaying one image in a large version above small versions of other images in the set. J.A. 3587, fig. 4c; 3593 ¶ 60.

C

The Board, on behalf of the PTO's Director, instituted all four requested reviews. In the first proceeding to reach a final written decision, in May 2023, the Board held unpatentable for obviousness all fifteen claims of the '658 patent. *Apple Inc. v. MemoryWeb, LLC*, No. IPR2022-00033,

2023 WL 5167543, at *35 (P.T.A.B. May 18, 2023) (*'658 IPR Decision*). In June, two more final written decisions issued. In the first of those decisions, in the '020 PGR, the Board, in a ruling unchallenged here, concluded that claims 6, 7, 38, and 39 had insufficient written-description support. It also held unpatentable for obviousness claims 1–5, 8–12, 17–37, 40–44, and 49–59, while upholding claims 13–16 and 45–48 on the ground that Apple's petition was insufficiently clear about its case for obviousness of those claims. *Apple Inc. v. MemoryWeb, LLC*, No. PGR2022-00006, 2023 WL 3903388, at *43 (P.T.A.B. June 7, 2023) (*'020 PGR Decision*). Later that month, the Board upheld all twelve claims of the '376 patent, concluding that, as to one limitation of all challenged claims, Apple had failed to show the obviousness of that limitation because the petition's theory of obviousness rested on an incorrect description of A3UM's disclosure. *Apple Inc. v. MemoryWeb, LLC*, No. IPR2022-00032, at 52 (P.T.A.B. June 30, 2023); J.A. 167. Finally, in December 2023, the Board decided in the '228 IPR that all nineteen claims were unpatentable for obviousness. *Apple Inc. v. MemoryWeb, LLC*, No. IPR2022-00031, at 101 (P.T.A.B. December 8, 2023); J.A. 270.

Apple moved for rehearing in the '020 PGR and its request was denied. Apple timely appealed from the Board's unfavorable decisions in the '376 IPR and '020 PGR, and MemoryWeb timely cross-appealed in the '020 PGR. We consolidated those appeals. MemoryWeb requested rehearing in the '658 IPR, and that request was also denied. Following that denial and the Board's decision in the '228 IPR, MemoryWeb timely appealed from both decisions, and we consolidated those with the three earlier appeals. We have jurisdiction under 28 U.S.C. § 1295(a)(4)(A) and 35 U.S.C. §§ 141(c), 319, 329.

II

We review the Board's conclusions of law and compliance with legal standards without deference, while we

review factual findings for substantial-evidence support. *Corephotonics, Ltd. v. Apple Inc.*, 84 F.4th 990, 1001 (Fed. Cir. 2023). Substantial evidence is "such relevant evidence as a reasonable mind might accept as adequate to support a conclusion." *Consolidated Edison Co. v. National Labor Relations Board*, 305 U.S. 197, 229 (1938).

We address several issues raised by Apple and MemoryWeb, and our conclusions about those issues make it unnecessary to address other issues presented to us. Apple contends that the Board made two errors in construing Apple's petitions, one in each of the '376 IPR and the '020 PGR, affecting all claims upheld. MemoryWeb makes a claim-construction argument concerning claims 1–5, 8–12, 17–37, 40–44, and 49–59 of the '020 patent and claims 8–12 of the '658 patent. MemoryWeb also contends that the Board inadequately explained its decisions for claim 15 of the '228 patent and claims 3–4 of the '658 patent. We address each of those arguments in turn, setting out the relevant background in greater detail as necessary.

A

We begin with Apple's appeals from the '020 PGR and '376 IPR. Apple argues that, in both proceedings, the Board erroneously interpreted Apple's petitions, requiring a remand for the Board to reconsider its upholding of claims 13–16 and 45–48 of the '020 patent and all claims of the '376 patent.

We review the Board's interpretation of the content of a petition for abuse of discretion. *Corephotonics*, 84 F.4th at 1002–03 (citing *Yita LLC v. MacNeil IP LLC*, 69 F.4th 1356, 1366 (Fed. Cir. 2023)). The Board abuses its discretion if its decision "(1) is clearly unreasonable, arbitrary, or fanciful; (2) is based on an erroneous conclusion of law; (3) rests on clearly erroneous fact finding; or (4) involves a record that contains no evidence on which the Board could rationally base its decision." *Ericsson Inc. v. Intellectual*

Ventures I LLC, 901 F.3d 1374, 1379 (Fed. Cir. 2018) (citation omitted).

We vacate the Board's upholding of claims 13–16 and 45–48 of the '020 patent, determining that the Board abused its discretion in the rationale for that result. We affirm the Board's decision in the '376 IPR.

1

Apple argues that the Board too narrowly construed the petition for the '020 PGR in concluding that Apple was too unclear about what in the prior art it was asserting taught or rendered obvious the "second map image" element of claims 13–16 and 45–48. We agree. Apple's petition was sufficiently clear. We therefore must vacate the Board's ruling on these claims and remand for the Board to address Apple's theory on the merits. *See Provisur Technologies, Inc. v. Weber, Inc.*, 50 F.4th 117, 125 (Fed. Cir. 2022) (vacating Board's decision for failure to "substantively engage with" party's argument); *Power Integrations v. Lee*, 797 F.3d 1318, 1325 (Fed. Cir. 2015) (vacating Board's decision when it focused on a "red herring" ancillary to arguments made by the parties).

The '020 patent has fifty-nine claims, of which 1 and 31 are independent. The relevant claims here are 13–16, which depend indirectly on claim 1, and 45–48, which depend indirectly on claim 31. *See* '020 patent, col. 36, lines 22–46; col. 39, lines 9–32. The parties agree that claims 13–16 and claims 45–48 are mirror images of each other, as are the underlying claims 1 and 31. *See* Apple's Opening Br. at 11; MemoryWeb's Response Br. at 13–14. Moreover, the disputed issue involves an element of claims 13 and 45, which are materially identical, with nothing significant to the issue added by claims 14–16 (dependent on claim 13) or claims 46–48 (dependent on claim 45). We may therefore focus just on claim 13 and its independent claim 1. Claim 1 requires in its method the following, the key part

for present purposes being the emphasized requirement about a "first person view":

> causing an interface to display a people view, the people view including:
>
> a first thumbnail image associated with a first person,
>
> a first name associated with the first person,
>
> a second thumbnail image associated with a second person, and
>
> a second name associated with the second person;
>
> 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,
>
> the first name associated with the first person, and
>
> **a first map image**;
>
> . . . .

'020 patent, col. 35, lines 17–45 (emphases added). Claim 13 adds an element involving a "second person view":

> 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** the second digital file associated with the second person, the second name associated with the second person, and **a second map image**.

Id., col. 36, lines 22–28 (emphases added).

Apple's petition for PGR alleged that all claims of the '020 patent were unpatentable for obviousness over A3UM. J.A. 688. To meet claim 1's limitation of a "first person

view" including a "first map image," Apple identified A3UM's Faces, asserting that each of the Places buttons (one on the toolbar and one on the inspector pane), was a first map image. J.A. 714–715 (citing J.A. 2539, 2880 (A3UM Faces disclosures)); J.A. 715 ("A3UM's interface includes two selectable links with miniature map icons ('*first map image[s]*')." (emphasis and alteration in original)). For the similar "second person" and associated "second map image" limitation of claim 13, Apple referred to its analysis of claim 1's "first map image," writing: "A3UM discloses providing the same functionality for each face identified by the system . . . . Because A3UM discloses or renders obvious these features with respect to a '*first person*' (claims 1 and 31), A3UM discloses or renders obvious these features with respect to a '*second person*.'" J.A. 747–48 (citing J.A. 713–21) (emphases in original).

The Board held all claims but 13–16 and 45–48 unpatentable. *'020 PGR Decision*, at *43. For claim 1's "first map image," the Board accepted Apple's argument that both Places icons met the limitation. *Id.* at *22–23. But for claim 13's "second map image," the Board concluded that the petition "lack[ed] any discussion of a second map image" and failed to

> explain whether (1) both the first and second map images encompass a single instance of the [Places] icon, (2) each of the first and second map images encompass both instances (i.e., in the toolbar and the [ ] inspector [pane]), or (3) one map image corresponds to one instance.

Id. at *35. According to the Board, Apple's mapping of first/second versions of other claim elements to different elements of Faces (such as mapping first/second person elements to different people) made it unclear whether Apple intended to assert that both Places icons were both first map images and both second map images. *Id.* at *35–36. The Board concluded that the petition was "completely

silent—or at best unclear—about what [Apple] regards as the first and second map images." *Id.* at *36. Thus, the Board rejected, as presenting untimely new rationales, Apple's expert testimony, which focused on the Places button in the toolbar, and Apple's reply, which the Board read to assert that "the second map image could be mapped to the same feature in A3UM as the first map image." *Id.* (citing *Henny Penny Corp. v. Frymaster LLC*, 938 F.3d 1324, 1331–32 (Fed. Cir. 2019) and 35 U.S.C. § 312(a)(3)).

A PGR petition must identify "in writing and with particularity[ ] each claim challenged, the grounds on which the challenge to each claim is based, and the evidence that supports the grounds for the challenge to each claim[.]" 35 U.S.C. § 322(a)(3). That requirement includes "specify[ing] where each element of the claim is found in the prior art." 37 C.F.R. § 42.104(b)(4). A petitioner's reply may not introduce new arguments except to respond to arguments made in the institution decision and certain intervening filings. *See* 37 C.F.R. § 42.23(b).

"It is for the Board to determine what grounds are being articulated in a petition and what arguments and evidence are being referred to in the responses and any replies." *Corephotonics*, 84 F.4th at 1002. The Board acts within its discretion to interpret a petition when it refuses to consider an "entirely new rationale" distinct from that presented in the petition. *See Intelligent Bio-Systems, Inc. v. Illumina Cambridge Ltd.*, 821 F.3d 1359, 1370 (Fed. Cir. 2016). Sometimes a petitioner's offering of new evidence in reply may actually constitute advancing an impermissible new rationale. *See id.* at 1369–70; *Ariosa Diagnostics v. Verinata Health, Inc.*, 805 F.3d 1359, 1367 (Fed. Cir. 2015). But the Board abuses its discretion when it parses petitions and replies with "too fine of a filter." *Ericsson*, 901 F.3d at 1379–81; *see*, *e.g.*, *Apple Inc v. Andrea Electronics Corp.*, 949 F.3d 697, 705–07 (Fed. Cir. 2020). We have also found Board error in refusing to consider arguments "expressly incorporated" by reference to earlier portions of

a petition. *See CRFD Research, Inc. v. Matal*, 876 F.3d 1330, 1346 (Fed. Cir. 2017).

In this case, we are persuaded that Apple's petition presented the both-Places-buttons mapping that, in reply, it later made more explicit—entitling it to an evaluation of that mapping on its merits under obviousness standards. Apple's petition repeatedly and expressly identified both Places buttons, not just one or just the other, as each meeting the "first map image" limitation of '020 claim 1. J.A. 715 ("Each of these icons represent maps and a skilled artisan would consider them to be '*map image[s]*'."); *see also* J.A. 721–22. The petition's theory for claim 13 is duplicative of its claim 1 argument: It says that "A3UM discloses providing the *same* functionality for each face identified by the system" and, referring to the relevant portion of its claim 1 analysis, that "[b]ecause A3UM discloses or renders obvious *these features* with respect to a 'first person' (claims 1 and 31), A3UM discloses or renders obvious *these features* with respect to a 'second person.'" *See* J.A. 747–48 (emphases added and removed) (citing J.A. 713–21). The only sensible reading of those passages, which "expressly incorporated" Apple's claim 1 arguments into its claim 13 arguments, is that Apple's theory for "second map image" was precisely the same as its "first map image" theory, identifying each Places button as meeting the limitation. *CRFD*, 876 F.3d at 1346.

The Board's contrary conclusion was unreasonable. The Board said that it was unable to discern whether Apple meant that "one map image corresponds to only one instance [of the Places button]," *'020 PGR Decision*, at *36, but the Board cited no statement in the petition that suggests that possibility, nor could it, *see id.* at *35–36. The only plausible support for such an interpretation is Apple's expert's statement, "I've been talking about the Place[s] toolbar button as being the map image," but that statement does not contradict the natural reading of the petition, as what it says about the toolbar button (which is what the

expert had been talking about) does not exclude the possibility that the other Places button (in the inspector pane) is *also* a map image within the meaning of the claims. *See id.* at *36 (quoting J.A. 10457).

The Board also stated that the petition was ambiguous about whether "both the first and second map images could be a single instance of the icon [or] each of the first and second map images could be both [icons]." *Id.* As that formulation illustrates, there is no basis for reading the petition's obviousness analysis for claim 13's second map image as different from its analysis for claim 1's first map image. The Board had no apparent difficulty understanding Apple's argument in the context of claim 1's "first map image." *See '020 PGR Decision*, at *22–23 (Board characterizing Apple's claim 1 theory as being "that the Places *icons*" are map images, and reproducing images of each (emphasis added)). The Board rightly found Apple's theory for claim 1's map image sufficiently clear, and there was no basis for a different conclusion regarding claim 13. Making such a distinction about clarity is here unjustified. *See Vicor Corp. v. SynQor, Inc.*, 869 F.3d 1309, 1322 (Fed. Cir. 2017) (enforcing requirement of consistency). Whether a single button could serve to meet both map-image requirements, is, if relevant at all, a merits matter, perhaps a matter of claim construction, and not a matter of insufficiency of the petition.

MemoryWeb argues that the Board's decision should be upheld because Apple took inconsistent positions about how "first" and "second" should be construed with respect to different claim elements. MemoryWeb's Response Br. at 37–38. But such different treatment, besides not necessarily being incorrect under the claim language, does not necessarily create insufficient clarity. Here, it did not create insufficient clarity. It evidently gave MemoryWeb no trouble, because in its patent owner response MemoryWeb correctly characterized the petition as "identif[ying] two alleged examples of a 'map image' in A3UM, [and] not

contend[ing] that one example corresponds to the 'first map image' while the other corresponds to the 'second map image.'" J.A. 1065. That is strong confirmation that the Board erred in failing to address what was a readily understandable argument.

Whether the alleged inconsistency in Apple's treatment of map images compared to other first/second versions of claim elements supports rejecting Apple's theory on claim-construction or other merits grounds is a matter for the Board to consider in the first instance on remand, constrained by any relevantly similar now-final findings of fact and conclusions of law in the '020 PGR and related proceedings. *See Vicor*, 869 F.3d at 1322. We vacate the Board's determination that Apple's petition was insufficient as to claims 13–16 and 45–48 of the '020 patent and remand for further proceedings consistent with this opinion.

2

Regarding the '376 IPR, Apple argues that the Board, in rejecting Apple's challenge to all claims, ignored a modification-based obviousness theory Apple says it presented in its petition. We see no reversible error in the Board's ruling on this patent.

The '376 patent has twelve claims, of which claims 1, 5, and 12 are independent. Claim 1 involves displaying a "map view" having an "interactive map" and two "user selectable thumbnail image[s]" at associated locations on the map and, "responsive to a click or tap of the first user selectable thumbnail image, displaying a first location view . . . **not including the interactive map**." '376 patent, col. 35, line 13 through col. 36, line 14 (emphasis added). Claim 12 has a substantially similar limitation. *See id.*, col. 38, lines 28–37. Independent claim 5's similar "location view" does not have a negative limitation pertaining to the interactive map, but Apple at the Board incorporated its claim 1 arguments for claim 5's location view, J.A. 11574–

75, and it makes no separate arguments about claim 5 on appeal, Apple's Opening Br. at 31–48.

In its petition, Apple asserted that all claims of the '376 patent would have been obvious over a prior-art combination including A3UM and Belitz. Its theory of obviousness of claim 1—with its requirement of a location view having no interactive map (repeated for claims 5 and 12, *see* J.A. 11574–75, 11585)—focused on the Places function in A3UM. Apple asserted, citing the Places disclosure in A3UM, that "A3UM discloses selecting a pin on the interactive map to display a thumbnail representation of all photos matching that location in the Browser" (*i.e.*, in the Browser portion of Places). J.A. 11559 (citing J.A. 2897–98). In the next sentence, Apple said: "Selecting a thumbnail in the Browser then prompts display of the original digital image in the Viewer." J.A. 11559 (citing J.A. 2712 (pertaining to Split View, not Places)). Apple's next sentence then said: "This display will be the digital image (*e.g.*, a full-size photo) represented by the thumbnail in the Browser ('*not including the interactive map*')." J.A. 11559 (citing J.A. 2512 (also not pertaining to Places)) (emphasis in original). That is, Apple argued that clicking a Browser thumbnail while in Places calls up Split View. *See* J.A. 11559–60.

With that argument about A3UM, Apple then brought in Belitz, arguing that the '376 patent's claimed "map view" could be achieved by simply replacing Places's pins with Belitz's thumbnail image map markers and "retain[ing]" the asserted functionality of A3UM of navigating to Split View by clicking a thumbnail. *Id.* That modification would have been obvious, Apple said, because "[t]he *only functional distinction* between the operations of A3UM and Belitz [upon selecting a map marker] is that Belitz automatically displays an image from the selected location while A3UM does not." J.A. 11563 (emphasis added). Given the close relationship of the two disclosures, Apple added, a relevant artisan would have been motivated to

improve the user experience by reducing the number of clicks required to display a large image. J.A. 11564.

The Board determined that Apple had failed to show the unpatentability of any claims of the '376 patent because its argument that the combination met claim 1's location view incorrectly described the disclosure of A3UM. In particular, the Board determined that A3UM does not disclose navigating to Split View from Places by clicking a thumbnail, J.A. 157—the step before making changes based on Belitz—so A3UM would have to be modified to behave in that way, but Apple failed to advance a theory involving that modification or motivate it, J.A. 158–59. The Board rejected, as untimely new rationales, Apple's reply arguments that it *did* present and support a theory of modifying A3UM's Places to behave similarly to Split View. J.A. 158–59. In the alternative, the Board found that even if Apple's petition could be fairly read to advance the relevant modification, it did not persuasively support such a motivation, particularly because the asserted advantages of the combination were outweighed by disadvantageous loss of functionality in Places. *See* J.A. 161–63.

Apple contends on appeal, as it did before the Board, that its theory all along was that it would have been obvious to modify A3UM's Places disclosure with Belitz's thumbnail map markers *and* the behavior of Split View. Apple's Opening Br. at 31–43. But, as discussed above, the Board acts within its discretion when it refuses to consider a reply's presentation of an "entirely new rationale"—one reasonably determined not to be present in the petition. *Intelligent Bio-Systems*, 821 F.3d at 1370; *see Henny Penny*, 938 F.3d at 1330–31 (stressing that the petition must "identify 'with particularity' the 'evidence that supports the grounds for the challenge to each claim,'" quoting 35 U.S.C. § 312(a)(3), which is materially identical to 35 U.S.C. § 322(a)(3)). Here, the Board did not abuse its discretion in doing just that. It reasonably read the petition as resting on an incorrect description of A3UM's disclosure and as not

including, or adequately supporting, the later-asserted theory of modifying A3UM to adapt Places to engage in the behavior of Split View.

The petition's statement that, after opening Places, "[s]electing a thumbnail in the Browser *then prompts* display of the original digital image in the Viewer" is an assertion about what A3UM discloses about Places, not a contention about how A3UM could be modified. J.A. 11559 (citing A3UM's discussion of Split View, not Places) (emphasis added). Apple's further assertion that the combination would "retain this functionality" (*i.e.*, the supposed ability, in Places, to "display [ ] the full image" by clicking a thumbnail) supports that understanding. J.A. 11559–60. As the Board found, undisputed on appeal by Apple, Apple's Opening Br. at 38–39, A3UM does not disclose the asserted behavior—instead, clicking a Browser thumbnail in Places displays information on the interactive map, J.A. 156–57 (citing J.A. 2897, 2904–05).

Because of its error, Apple misstated the relationship between A3UM and Belitz, saying that "[t]he only functional distinction" between the two disclosures was Belitz's "automatic" display of a thumbnail upon clicking an icon on an interactive map, compared to (what Apple described as) two clicks in A3UM's Places (one on a map pin, and another in the Browser portion). J.A. 11562–63. That was *not* the only functional distinction between the relevant portions of the references, so the motivation to combine the function of Split View, a different A3UM tool not as closely conceptually related to Belitz's map displays, went unexplained. *See* J.A. 11559–66. Even if scattered portions of Apple's petition could be read together to suggest a modification theory, *see* Apple's Reply Br. at 17–18, "[t]he Board should [ ] not have to decode a petition to locate additional arguments beyond the ones clearly made." *Netflix, Inc. v. DivX, LLC*, 84 F.4th 1371, 1377; *see id.* at 1377–78 (collecting cases). The Board's reading was neither "clearly unreasonable [nor] arbitrary," nor "rest[ing] on clearly

erroneous fact finding," so was not an abuse of discretion. *See Ericsson*, 901 F.3d at 1379. That is enough for us to affirm the Board's determination that Apple failed to show the unpatentability of all claims of the '376 patent.

B

MemoryWeb, in its cross-appeal, argues that the Board erroneously construed the claim term "responsive to" relevant to claims 1–5, 8–12, 17–37, 40–44, and 49–59 of the '020 patent and claims 8–12 of the '658 patent.

We review the Board's claim constructions and its analysis of intrinsic evidence without deference, while we review factfinding based on extrinsic evidence for substantial-evidence support. *Teva Pharmaceuticals USA, Inc. v. Sandoz, Inc.*, 574 U.S. 318, 331–33 (2015). We reject MemoryWeb's claim-construction argument.

Independent claim 1 of the '020 patent, which is in relevant part identical to claim 31, the only other independent claim, recites:

> 1. A method comprising:
>
> **causing an interface to display a people view, the people view including:**
>
> **a first thumbnail image associated with a first person,**
>
> **a first name associated with the first person,**
>
> a second thumbnail image associated with a second person, and
>
> a second name associated with the second person;
>
> **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,

> the first name associated with the first person, and
>
> **a first map image**;
>
> . . . .

'020 patent, col. 35, lines 17–45 (emphases added).

Claims 8–12 of the '658 patent depend directly or indirectly on claim 7, which depends on claim 1 through claim 5. Claim 1 includes an "application view" with a "**location selectable element**"; claim 5 adds a "people selectable element," and, responsive to selecting that element, displaying a "people view" with a first and second "person selectable thumbnail image." '658 patent, col. 35, lines 20–24 (emphasis added); col. 36, lines 29–34, 41. Claims 7 and 8 further state:

> 7. The computer-implemented method of claim 5, further comprising **responsive to a click or tap of the first person selectable thumbnail image, displaying a first person view** . . . .
>
> 8. The computer-implemented method of claim 7, wherein **the displaying the first person view further includes displaying a first-person-location selectable element.**

Id., col. 36, lines 56–65 (emphases added). Claim 10 adds to claim 7 a "displaying a second person view" step responsive to selecting the "second person selectable thumbnail image," and claim 11 (which mirrors claim 8) has a "**second-person-location selectable element**." *Id.*, col. 37, lines 4–15 (emphasis added).

The Board held the relevant '020 and '658 claims unpatentable for obviousness on similar grounds. In the '020 PGR, Apple argued that the "first map image" of claims 1 and 31 was disclosed by the Places buttons of A3UM's toolbar and inspector pane when in the Faces view (a "first person view"). J.A. 715; *see* J.A. 713–14. MemoryWeb, in response, argued for an express construction of "responsive

to an input . . . causing a first person view to be displayed" as requiring a "causal relationship," J.A. 984–88, and made a similar argument about a different "responsive to" limitation, J.A. 991–92. MemoryWeb contended that displaying the Places buttons lacked such a causal relationship because the buttons are static user interface elements of A3UM—that is, the Places buttons "are in exactly the same state on the interface *regardless of any input* in a Faces view." J.A. 1037 (emphasis in original).

The Board disagreed. It declined to expressly construe "responsive to." *'020 PGR Decision*, at *13–15. Analyzing the prior-art combination, the Board reasoned that Apple had shown the entire A3UM interface (including the visible toolbar and inspector pane) to be the claimed first person view. *Id.* at *24. Stating that it was applying MemoryWeb's construction of "responsive to" as requiring a causal relationship, the Board reasoned that "A3UM describes a cause-effect relationship between the input and the display of a view of the images, the toolbar, and the inspector panes." *Id.* at *23–24. Both the Places buttons on the toolbar and inspector pane (which represent maps) were therefore capable of being the claimed "first map image." *Id.* at *24. According to the Board, MemoryWeb's argument to the contrary implicitly, and erroneously, rested on the idea that the first map image must be displayed *only* in the first person view. *Id.* at *22–23.

MemoryWeb made a similar argument, rejected by the Board for the same reasons, in the '658 IPR. In that IPR, Apple's petition argued that the "location selectable element" of claim 1 and the first and second "person-location selectable element" of claims 8 and 11 read on the Places buttons of the toolbar and inspector pane visible in A3UM's Faces. J.A. 39303, 39328–29. MemoryWeb, in response, conceded that the "claims should be afforded their plain and ordinary meaning," but then offered a "discussion" of its own understanding of certain claim terms. J.A. 39595. That discussion included the ideas that "responsive to"

requires a "cause-effect relationship," J.A. 39600–01, and that the first/second-person-location selectable elements of claims 8 and 11 must be "distinct from the location selectable element [of claim 1]," J.A. 39604–05. MemoryWeb then contended that the Places buttons were not displayed "responsive to" an input, as required, because they "are both persistently included and displayed by default" in A3UM's interface. J.A. 39652.

The Board rejected MemoryWeb's contentions. First, it held that no express claim construction was required because MemoryWeb had agreed that ordinary meaning sufficed. *'658 IPR Decision*, at *5. Second, it wrote that "nothing [ ] precludes the Places tab from being both the selectable location element required by claim 1, and either the first-person-location selectable element required by claim 8 or the second-person-location selectable element required by claim 11." *Id.* at *31.

1

MemoryWeb's position on appeal pertinent to these '020 and '658 claims is that, for an interface element to be displayed "responsive to" an input, it must "not [be] displayed independently," and that the Board improperly construed the claims otherwise. MemoryWeb's Response Br. at 78 (emphasis removed). By "not displayed independently," MemoryWeb appears to mean that none of the elements recited after a "responsive to" clause was already displayed. *See id.* at 77–78.

We briefly address some preliminary issues before reaching the crux of the claim-construction question. First, we observe that it is unclear how MemoryWeb's argument bears on '658 claim 10, which has no "person-location selectable element," so we affirm the Board's ruling of unpatentability for that claim without further discussion.

Second, we observe that, although the Board framed the question in the '658 IPR as whether the location

selectable element of claim 1 could be the same as the first/second-person-location selectable elements of claims 8 and 11, the Board's conclusion amounts to the same thing as saying that the latter elements may appear "independently," to use MemoryWeb's phrasing, so we can treat both the '658 IPR and '020 PGR decisions together in that respect.

Third, it is possible to read the Board's decisions in the '020 PGR and '658 IPR as either applying MemoryWeb's "responsive to" construction ("causal relationship" in the former case, and ordinary meaning in the latter) or adopting a different construction (because, in each case, the Board understood the requisite causal relationship differently from MemoryWeb). On the first reading, it was reasonable for the Board to say that, following a computer input, what remained visible on the screen was responsive to that input, whether because those steps bear a causal relationship or because the situation described comes within the ordinary meaning of "responsive to." After all, different inputs (*e.g.*, turning the computer or the screen off or closing the application) could have caused nothing to be visible, or caused the Places buttons to disappear. *See* J.A. 2515, 3528. Thus, to the extent MemoryWeb challenges the Board's application of MemoryWeb's claim constructions to the relevant facts, we discern no error.

2

We now turn to whether the claim term "responsive to" requires that the associated elements *newly* appear on the screen. We hold that it does not.

Claim terms are to be given the ordinary meaning a relevant artisan would understand from the claims themselves and the context of the patent. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–13 (Fed. Cir. 2005) (en banc). Consistent with that principle, we will not, in general, read a negative limitation into the claims unless disclaimer, lexicography, or other intrinsic evidence supports such a

reading. *See Omega Engineering, Inc. v. Raytek Corp.*, 334 F.3d 1314, 1323 (Fed. Cir. 2003).

Nothing in the claim language requires MemoryWeb's interpretation, which runs contrary to the customary understanding of "responsive to." The term certainly requires a causal relationship, but causation comes in degrees. MemoryWeb essentially asks us to impose the nearest and narrowest sense of causation, and interpret the claims to require that but for the relevant user input, and only that input, no map image (or location selectable element) would be present. "Responsive to" has a broader connotation than that cramped reading.

The specification confirms that a broader connotation—encompassing static elements, *i.e.*, those visible on a screen both before and after an input—is the right one. The drawings depict several screen captures, each having the same toolbar at the top of the screen and each labeled a "view." '020 patent, figs. 32–36. Other disclosures similarly employ static design elements. *See id.*, figs. 4, 6, 9, 17 (left and right arrows in same position on different screens); figs. 11–16 (vertical scroll bar). The presence of these elements in the specification's exemplary views, given the ubiquity of such familiar features in computer programs, reinforces the natural understanding of "responsive to" in the context of the patent—that static elements remaining on a screen following an input are responsive to that input. One would expect, had the patent drafter meant to claim only the parts of a view that newly appear responsive to an input, or appear responsive *only* to some input, that the patent would disclaim the many disclosed static interface elements. MemoryWeb identifies no such disclaimer, nor any other evidence for its reading, so fails to show that we should read such a limitation into the claims. *See Omega*, 334 F.3d at 1323. Because the intrinsic evidence is dispositive, and refutes MemoryWeb's narrow construction of "responsive to," we affirm the Board's

ruling that '020 claims 1–5, 8–12, 17–37, 40–44, and 49–59 and '658 claims 8–12 are unpatentable for obviousness.

C

Regarding the '228 patent and certain claims of the '658 patents, MemoryWeb argues that the Board violated Administrative Procedure Act (APA) requirements of adequate explanation and substantial-evidence support in certain of its unpatentability holdings. We review the Board's decisions under the standards of the APA, 5 U.S.C § 706. *TQ Delta, LLC v. CISCO Systems, Inc.*, 942 F.3d 1352, 1357–58 (Fed. Cir. 2019). We apply the principle that "the Board is obligated to 'provide an administrative record showing the evidence on which the findings are based, accompanied by the [Board's] reasoning in reaching its conclusions.'" *Id.* at 1358 (citing *In re Lee*, 277 F.3d 1338, 1342 (Fed. Cir. 2002)). We reject MemoryWeb's APA arguments.

1

With respect to claim 15 of the '228 patent, MemoryWeb contends that the Board violated the adequate-explanation requirement of the APA by merely summarizing and rejecting MemoryWeb's arguments. MemoryWeb's Response Br. at 59–68. We disagree and affirm the Board's determination of unpatentability.

Claim 15 of the '228 patent depends on independent claim 1. Claim 1, as relevant here, includes a "first" and "second" "location view," each of which has a "representation of at least a portion of one digital file in a [first/second] set of digital files . . . associated with the [first/second] location." '228 patent, col. 35, lines 40–60. Claim 15 further includes the following step:

> responsive to an input that is indicative of a selection, in the first location view, of the representation of the at least a portion of the one digital file in the first set of digital files, causing a first digital file to be displayed on the interface . . . .

Id., col. 37, lines 2–6. Claim 15 also has a materially identical limitation for the "second" location view and set of digital files. *Id.*, col. 37, lines 7–10.

In Apple's '228 IPR petition, as in its '376 IPR petition, Apple asserted that selecting an image in the Browser of A3UM's Places "prompts the display of the original digital image in the Viewer." J.A. 21908. According to Apple, were A3UM modified to include Belitz's overlaid thumbnail images instead of A3UM's pins, the combination would "retain[ ]" the ability to display one of the images by clicking it on the map (rather than clicking a pin to display images in the Browser and then clicking one of those images). J.A. 21909. That modification would then meet the two "causing a [first/second] digital file to be displayed on the interface" limitations of claim 15. J.A. 21908–09. MemoryWeb, in response, pointed out Apple's error, arguing that A3UM's disclosure of Places does not "show a selected image in the Browser replacing the map with a full-size version." J.A. 22240. The Board, without rejecting MemoryWeb's factual contention, nevertheless determined that claim 15 would have been obvious because "[n]owhere does claim 15 . . . recite a requirement to 'replace the map with a full-size version of the image' as [MemoryWeb] suggests." J.A. 266.

On appeal, MemoryWeb contends that the Board violated the APA by summarily rejecting MemoryWeb's arguments and failing to make "express findings regarding how the prior art teaches or suggests the subject matter of claim 15." MemoryWeb's Response Br. at 61; *see id.* at 59–68. In particular, it argues that the Board improperly failed to recognize that Apple's petition's theory of claim 15's obviousness rested on the same error regarding A3UM's disclosure that Apple made in the '376 petition. *Id.* at 65–68.

Insufficient explanation or identification of evidence may render a Board decision inadequate under the APA. *TQ Delta*, 942 F.3d at 1358. But the Board is "not required

to address undisputed matters." *In re Nuvasive, Inc.*, 841 F.3d 966, 974 (Fed. Cir. 2016). The latter principle means that here the Board did not err in rejecting MemoryWeb's arguments for claim 15.

Claim 15 requires, essentially, that two images be displayed by selecting them from a view containing a map. '228 patent, col. 37, lines 2–10. MemoryWeb argued that the asserted combination would not "*replac*[*e*] the map with a *full-size version*" of a selected image. J.A. 22240 (emphases added). But causing the interactive map to disappear and displaying a large version of an image are not requirements of '228 claim 15—though they are requirements of '376 claim 1. *Compare* '228 patent, col. 37, lines 2–10, *with* '376 patent, col. 35, lines 51–65. MemoryWeb failed to dispute that A3UM discloses causing an image to be displayed by selecting it in the Browser from Places, which is what claim 15 requires. *See* J.A. 22238–42 (MemoryWeb's patent owner response); J.A. 22389–93 (sur-reply). Indeed, the evidence MemoryWeb cited in its response shows Browser thumbnail images *displayed* on the screen in Places after they are selected, so it is difficult to imagine how the Board could have known that there was a dispute over that limitation. *See* J.A. 22242.

In these circumstances, the Board was not required to address the uncontested issue of how the combination met the limitations of claim 15. *See Nuvasive*, 841 F.3d at 974. Rather, the Board satisfied its obligation to provide an administrative record containing sufficient reasoning by considering MemoryWeb's argument, correctly observing that no limitation of claim 15 was implicated in that argument, and explaining that MemoryWeb's point was irrelevant, regardless of whether it was factually accurate. Accordingly, we affirm the Board's decision that claim 15 of the '228 patent is unpatentable for obviousness.

2

MemoryWeb argues that the Board's '658 IPR decision, in determining that claims 3 and 4 were unpatentable, failed to recognize the petition's erroneous description of the disclosure of A3UM, was inadequately explained, and was unsupported by substantial evidence. MemoryWeb's Response Br. at 68–73. We disagree.

Independent claim 1 of the '658 patent recites two relevant views: a "map view" and a "location view." '658 patent, col. 35, lines 24–27, 54–63. The map view contains an interactive map and

> a first location selectable thumbnail image at a first location on the interactive map, the first location being associated with the geographic coordinates of a first geotag, a first set of digital photographs and videos including all of the digital photographs and videos associated with the first geotag[.]

Id., col. 35, lines 29–34. Displaying the "first location view" "responsive to a click or tap of the first location selectable thumbnail image" includes displaying a "location name" and "a scaled replica of each of the digital photographs and videos in the first set of digital photographs and videos . . . [those] not being overlaid on the interactive map." *Id.*, col. 35, lines 54–63. Claim 3, on which claim 4 depends, adds a further step—from claim 1's location view,

> **responsive to a click or tap of a first one of the displayed scaled replicas in the first location view, displaying a first digital photograph** associated with the first scaled replica in the first location view **and a first map image**[.]

Id., col. 36, lines 15–20 (emphases added).

Apple argued, and the Board agreed, that claims 3 and 4 would have been obvious over A3UM in view of Belitz and

another reference. *'658 IPR Decision*, at *31–35. Apple made two arguments for obviousness. First, it said that A3UM already disclosed claim 3's "displaying a first digital photograph . . . and a first map image," because A3UM's inspector pane could be configured to display a small map upon displaying a photo in the Viewer, and therefore, from Places, "selecting one of the photos in the Browser would, with a single click, display (i) the photo in the Viewer and (ii) the photo's information (and map) in the [inspector pane]." J.A. 39344 (petition). Second, Apple's petition asserted in the alternative that "it would have been obvious to modify A3UM such that selecting a photo in the Browser, in addition to displaying that photo in the Viewer, would display A3UM's Map Pane[, the requisite 'first map image,'] at the bottom of the [i]nspector pane." *Id.* A relevant artisan would have been motivated to modify A3UM in that way, according to Apple, in part because "[s]mall maps were known and useful [user interface] elements" that could perform known functions to enhance the photo-browsing experience. J.A. 39345.

The Board agreed with MemoryWeb that Apple's first theory of obviousness misstated A3UM's disclosure, making an error similar to the one in Apple's '376 IPR petition, discussed above. *'658 IPR Decision*, at *34. It nevertheless held claims 3 and 4 unpatentable for obviousness based on Apple's alternative theory that it would have been obvious to modify A3UM to meet the claims. *Id.* at *34–35. The Board elaborated, in its decision denying MemoryWeb's rehearing request, that it "credited" Apple's argument in support of that theory and concluded that a relevant artisan would have been motivated to modify notwithstanding disadvantages identified by MemoryWeb. J.A. 367.

We note, first, that whether Apple's petition in the '658 IPR contained the same factual error that proved fatal to the obviousness theory of the '376 IPR is of no moment here, where Apple's petition (unlike its petition in the '376 IPR) expressly stated an alternative obviousness theory

based on modifying A3UM and articulated a motivation to combine. J.A. 39344. What remains is MemoryWeb's contention that the Board's acceptance of Apple's alternative theory was inadequately explained and insufficiently supported by the evidence. *See* MemoryWeb's Response Br. at 71–73.

"We may affirm an agency ruling if we may reasonably discern that it followed a proper path, even if that path is less than perfectly clear." *Ariosa*, 805 F.3d at 1365 (citing *Bowman Transportation, Inc. v. Arkansas-Best Freight System, Inc.*, 419 U.S. 281, 285–86 (1974)). While "it is not adequate for the Board to summarize and reject arguments" without explanation, we have repeatedly said that "the Board is not required to address every argument raised by a party or explain every possible reason supporting its conclusion." *Medtronic, Inc. v. Teleflex Innovations S.a.r.l*, 70 F.4th 1331, 1344 (Fed. Cir. 2023) (quoting *In re Nuvasive, Inc.*, 842 F.3d 1736, 1383 (Fed. Cir. 2016), and *Yeda Research v. Mylan Pharmaceuticals Inc.*, 906 F.3d 1031, 1046 (Fed. Cir. 2018)) (cleaned up). To determine whether the Board's decision complies with the APA, we may consider the explanations given and evidence identified by the Board in a rehearing decision. *See AC Technologies S.A. v. Amazon.com, Inc.*, 912 F.3d 1358, 1364–65 (Fed. Cir. 2019).

The Board's path here was reasonably discernable and proper. In its final written decision, the Board described the theory of Apple's petition at length and concluded that Apple "provides reasoning in support of the proposed modification" and "addresses all of the limitations of claims 3 and 4." *'658 IPR Decision*, at *34; *see id.* at *31–33. The petition's stated motivation to modify, citing expert testimony, was that displaying a small map image with a photo would "enhance the [photo] browsing experience" and "conveniently display [ ] information" such as where the photo was taken. J.A. 39345–46 (citing J.A. 40484–85 ¶¶ 202–04). It was reasonably inferable from those statements,

combined with the Board's consideration and rejection of each of MemoryWeb's contrary arguments, that the Board had adopted the petition's argument. *See '658 IPR Decision*, at *34–35; *Medtronic*, 70 F.4th at 1344 (holding that it was enough, to satisfy the APA, that the record "suggest[ed]" that the Board considered and weighed all of the arguments and "expressly identif[ied] the prevailing argument"). That implication was made explicit in the rehearing decision, which clarified that the Board "credited" the petition's corresponding arguments. J.A. 367. Contrary to MemoryWeb's assertions that the Board failed to cite "any evidence" in support of its obviousness determination, MemoryWeb's Response Br. at 72 (emphasis removed), the Board permissibly adopted the petition's theory, *see Medtronic*, 70 F.4th at 1344, which cited relevant expert testimony adequate to support the Board's conclusion, *see '658 IPR Decision*, at *34–35. Because the Board's decision was sufficiently clear and supported by the record, we affirm the determination of unpatentability of claims 3 and 4 of the '658 patent. *See Ariosa*, 805 F.3d at 1365.

III

We have thoroughly considered the parties' remaining arguments and find them unpersuasive. For the foregoing reasons, we affirm the decisions of the Board with respect to the '658, '228, and '376 patents, as well as the Board's determination that '020 claims 1–5, 8–12, 17–37, 40–44, and 49–59 are unpatentable for obviousness. We vacate the Board's ruling that Apple's petition was insufficient as to claims 13–16 and 45–48 of the '020 patent and remand for further proceedings consistent with this opinion.

The parties shall bear their own costs.

AFFIRMED IN PART, VACATED IN PART, AND REMANDED