

IPR2024-00960
Patent 7,486,807

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

GOOGLE LLC,
Petitioner

v.

138 EAST LCD ADVANCEMENTS LIMITED,
Patent Owner

Case No. IPR2024-00960
U.S. Patent No. 7,486,807

PATENT OWNER'S SUR-REPLY

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Number	Description
2001	Declaration of Nikolaos Papanikolopoulos, Ph.D.
2002	CV of Nikolaos Papanikolopoulos, Ph.D.
2003	Japanese Unexamined Patent Application, First Publication No. Hei 8-221547
2004	Translation of Japanese Unexamined Patent Application, First Publication No. Hei 8-221547 (“Wakayama”)
2005	Certificate of Translation for Japanese Unexamined Patent Application, First Publication No. Hei 8-221547
2006	Deposition Transcript of Robert Stevenson

I. Preliminary Statement

Patent Owner submits this Sur-Reply in response to Petitioner's Reply (Paper 22, "Reply") to Patent Owner's Patent Owner Response (Paper 17, "POR"). The Reply attacks the POR on two general grounds, both of which fail.

First, the Reply challenges Patent Owner's construction of "similar to the object of the image previously contained in the database" as "sufficiently similar to identify the specific object of the image previously contained in the database." Petitioner argues that the Challenged Claims¹ and specification of the '807 patent refute Patent Owner's proposed construction. Petitioner is wrong. The claims and specification of the '807 patent, as well as the unrebutted testimony of Patent Owner's expert support Patent Owner's construction. Further, Petitioner's arguments that Patent Owner is importing limitations from dependent claims, that Patent Owner seeks to narrow the claims to one embodiment, and that Patent Owner's construction is ambiguous are incorrect.

Second, Petitioner asserts that, even under Patent Owner's construction, Stubler (EX1005) anticipates or renders obvious the claims of the '807 patent through its disclosure of "region metadata." Petitioner is incorrect. Stubler's region

¹ Claims 1-14 (the "Challenged Claims") of U.S. Pat. No. 7,486,807 (the "'807 patent").

metadata is not usable in a way that the claims of the '807 patent require.

Moreover, Petitioner's attempts to rely on the disclosure of a different reference that is not incorporated into Stubler is both improper and factually flawed.

II. Patent Owner's Construction of "similar to the object of the image previously contained in the database" as "sufficiently similar to identify the specific object of the image previously contained in the database" is Correct.

Petitioner contends that Patent Owner's construction of "similar to the object of the image Previously contained in the database" is not correct. Reply at 2.

Petitioner does not offer a construction of its own, nor does Petitioner provide any expert testimony regarding the proper construction of this term.

The intrinsic evidence, including the claims and specification, support Patent Owner's construction of "similar to the object of the image previously contained in the database" as "sufficiently similar to identify the specific object of the image previously contained in the database." Further, the unrebutted expert testimony of Dr. Papanikolopoulos confirms that Patent Owner's construction is correct.

A. The Claims Support Patent Owner's Construction.

According to Petitioner, the claims allegedly contradict Patent Owner's construction "because the alleged 'two-step' process (generic object detection and face similarity determination) that Patent Owner [allegedly] attempts to read into claim 1 is recited in claim 2, making it improper to import into independent claim

1.” Reply at 3. As discussed in the POR, the ’807 patent discloses and claims a two-step process in which the image retrieving device “first acknowledge[es] or detect[es] the presence of an object in an input image, and then compar[es] the acknowledged object to other objects stored in the database to identify similar objects.” POR at 12 (citing EX2001, ¶ 53). In other words, in step one, the ’807 patent discloses detecting an object, and in step two, the ’807 patent discloses comparing the detected object to other objects previously stored in the database to determine similarity. *See id.* Petitioner’s argument that the claims do not support Patent Owner’s construction fails for two reasons. First, the two-step process discussed in the POR is explicit in claim 1 (and further supported by the dependent claims). Second, Petitioner’s argument rests on a misrepresentation of Patent Owner’s argument.

First, Claim 1 explicitly includes the above-described two-step process. Specifically, claim 1 recites an “object acknowledging section for acknowledging an inputted object” (*i.e.*, step one) and “an object information inputting section” that performs certain operations “when the inputted object acknowledged by the object acknowledging section is similar to the object of the image previously contained in the database” (*i.e.*, step two). Claim 1 does not limit the similarity determination to being performed by any particular “section.” But, by performing certain operations “when the inputted object acknowledged by the object

acknowledging section is similar to the object of the image previously contained in the database,” claim 1 makes clear that a similarity determination takes place in addition to the object acknowledgement. Thus, both steps of the two-step process discussed above, object acknowledgement and object similarity determination, are expressly set forth in claim 1. Petitioner does not dispute that claim 1 includes both an object acknowledgement step and an object similarity determination.

Accordingly, Petitioner is incorrect that the claims do not support Patent Owner’s construction of “similar to the object of the image Previously contained in the database.”

Second, Petitioner misrepresents Patent Owner’s argument by accusing Patent Owner of attempting to import a limitation from claim 2, “*face* similarity determination,” into claim 1. Reply at 3 (emphasis added). Petitioner’s argument fails because Patent Owner does not limit claim 1 to “face” similarity. The POR explains the second step as “comparing the acknowledged object to other objects stored in the database to identify similar objects.” POR at 12 (citing EX2001, ¶ 53). “Objects,” not just “faces.” Nowhere in the POR or elsewhere does Patent Owner argue that claim 1 is limited to faces. But the fact that claim 1 is not limited to determining *facial* similarity does not mean claim 1 does not include a determination regarding *object* similarity. Indeed, as discussed above, claim 1 explicitly recites performing certain operations “when the inputted object

acknowledged by the object acknowledging section is similar to the object of the image previously contained in the database.” This claim element makes clear that claim 1 requires a determination of object similarity.

With respect to claim 2, the fact that claim 2 is explicitly limited to faces (while claim 1 is not) is consistent with the longstanding law that “by definition, an independent claim is broader than a claim that depends from it.” *Littelfuse, Inc. v. Mersen USA EP Corp.*, 29 F.4th 1376, 1380 (Fed. Cir. 2022). Nothing in Patent Owner’s construction contradicts this principle or reads limitations from the dependent claims into the independent claim. Claim 1 recites the described two-step process for *any* object type. Claim 2 limits the scope of claim 1 specifically to objects that are faces. Accordingly, Petitioner is incorrect that Patent Owner is attempting to read limitations from claim 2 into claim 1 with the described two-step process of object acknowledgement and object similarity determination. Petitioner’s arguments with respect to claim 5 fail for similar reasons.

Accordingly, the claims of the ’807 patent support Patent Owner’s construction of “similar to the object of the image previously contained in the database” as “sufficiently similar to identify the specific object of the image previously contained in the database,” and Petitioner’s arguments should be rejected.

B. The Specification Supports Patent Owner's Construction.

Petitioner also incorrectly asserts that specification of the '807 patent does not support Patent Owner's construction. According to Petitioner, the POR "take[s] certain specification phrases out of context and ignore[s] other embodiments."

Reply at 4. In general, Petitioner argues that the specification supports the understanding that the phrase "similar to the object of the image previously contained in the database" may be a generic category of objects, such as a human or a car, and need not identify a unique instance of those objects. *Id.* Petitioner's argument fails because it misrepresents the teachings of the specification as a person of ordinary skill in the art ("POSITA") would understand them, and Petitioner's argument is based on a rewriting of the specification. The Reply frames its argument by parroting a number of selective, out of context quotes from the '807 patent's specification that Petitioner alleges demonstrate that the '807 patent's use of "specific" simply means the general class of object (such as human or car). Reply at 4-5. None of the citations provided in the Reply support Petitioner for the reasons stated below.

First, Petitioner points to Col. 3, ll. 21-27 as stating "[t]he object of the present invention is to add the keywords efficiently by detecting the object (for example, a human) in the image." Reply at 4. This excerpt is part of the background of the invention. This excerpt explains that one way in which the '807

patent differs from a specific piece of prior art² is by detecting an object, whereas the prior art used an image dictionary prepared in advance to identify classifying points that were manually selected by a user. EX1001 at 1:58-2:17; 3:17-27. In other words, this excerpt explains a relevant difference between the methods used in the '807 patent's invention compared to a specific prior art invention in detecting objects in the image. As noted above, detection is merely the first step in the '807 patent's two-step process of object detection and object similarity determination. The excerpt referenced by Petitioner is relevant to object detection only, it is not meant to and does not explain what is meant by the term "similar" (*i.e.*, object similarity determination) in the claims. Petitioner does not contend otherwise.

Second, Petitioner cites to col. 4, ll. 7-13 as stating "[A] predetermined object which is inputted in the image (such as a human or a car) is acknowledged (detected) by the object acknowledging section" and "the keywords which relate to the object are proposed to the user by the keyword proposing section." Reply at 4-5. While Petitioner does not explain the alleged relevance of this quotation in the Reply (*see id.*), it supports Patent Owner, not Petitioner. As with the first excerpt discussed above, this statement relates to object detection, not object similarity

² Japanese Unexamined Patent Application, First Publication No. 2001-160057.

determination. Moreover, this excerpt generally states that examples of objects include a human or a car, but adds that the present invention relates to a “predetermined” object and that the keywords which relate to “the” object are proposed. By using the specifying adjective “predetermined” and the definitive article “the” before the general term object, the ’807 patent makes clear that the object being referred to is not just any human or any car (for example) but rather a specific human (like “Jiro” in Figure 6) or car.³

Third, Petitioner cites to col. 4, ll. 49-68 as stating “an object . . . is a human such that the keyword (human information) is confirmed for the detected human.” Reply at 5. Again, this excerpt supports Patent Owner, not Petitioner. The excerpt specifies that keyword (human information) is confirmed “for the detected

³ Petitioner begins its discussion of the specification by rewriting Patent Owner’s use of “specific” (a term used throughout the specification) to mean “unique” (a term that does not appear in the specification). Reply at 4, n.1. Petitioner asserts that Patent Owner’s use of the very term used throughout the specification (“specific”) somehow “imparts confusion.” *Id.* It does not. Petitioner’s recasting of Patent Owner’s argument using terminology that is not rooted in the ’807 patent, but was invented from whole cloth demonstrates that it is Petitioner, not Patent Owner, who seeks to avoid the clear language used in the ’807 patent.

human.” “The detected human” is the specific, unique human who is contained within the photograph. It is not some generic concept of a human, as Petitioner seems to argue. Indeed, immediately before the cited excerpt, the ’807 patent describes the two-step process discussed above and in the POR in the context of a human object being detected. Specifically, the ’807 patent states that the object acknowledging section, when the object is a human, comprises:

A face image detecting section for detecting a face image in the image, and a face image similarity determining section for detecting a face image which is detected by the face image detecting section so as to detect a similar face image stored in the database according to the detected face imaged.

EX1001 at 4:30-33. Again, the ’807 patent plainly delineates the two-step process and indicates that *detecting* the object (in this particular case, a human) and *determining the similarity* between the detected object and previously stored objects are separate steps in the operation.

Fourth, Petitioner cites the summary section of the ’807 patent at col. 5, ll. 56-58 for the proposition that humans and cars are, categorically, considered “specific objects.” Petitioner simply misreads the excerpt. The relevant language of the ’807 patent states “[c]onsequently, a specific object (such as a human or a car) in the newly inputted image is acknowledged (detected) in the object acknowledging step.” The inclusion of “human” and “car” in the parenthetical

merely means that humans and cars are examples of objects. The '807 patent does not state, as Petitioner asserts, that humans or cars as categories are “specific” in the context of determining whether the detected object is similar to a previously stored object. On the contrary, the excerpt states that it is discussing object detection, making clear that this sentence is ***not*** discussing the second step of similarity determination, which is discussed elsewhere. *Compare, e.g.,* EX1001 at 8:22-59 (discussing object detection for human faces) *with id.* at 8:60-9:67 (discussing object similarity determination for human faces). Because the '807 patent consistently discusses the two-step process of (1) object detection for generally identifying objects and (2) object similarity determination for identifying specific instances of those objects that have previously been stored, Petitioner is incorrect that the '807 patent teaches that the general categories of “human” or “car” is considered “specific” for purposes of determining similarity between newly detected objects and objects previously stored in the database.

Fifth, Petitioner asserts that Figure 3 supports the conclusion that “it is sufficient to identify a ‘human’ (or ‘car’ or ‘face’) as the object of the image for purposes of similarity. Reply at 5-6. Petitioner is incorrect. The '807 patent states with respect to Fig. 3 that “various methods for proposing the human information” are used. '807 patent at 9:14-15. Notably, “[i]f it is determined that the face image *coincides to the face image* which is contained previously or that the face image *is*

very similar to the face image which is contained previously, the information *for such a human is proposed.*” *Id.* at 9:19-22. Thus, the ’807 patent makes clear with respect to Figure 3 that the image storing device, in the case of a detected human, performs a similarity determination that detects a face that “coincides” or is “very similar” to a previously stored human. *Id.* If so, then the information “for such a human” (*i.e.*, that specific human) is proposed. *Id.* Accordingly, Figure 3 supports Patent Owner’s construction, not Petitioner.

Sixth, Petitioner asserts with reference to Figure 4 that the fact that some *keywords* may be categorical means that any claimed image retrieving device does not need to be capable of identifying a specific object when it determines similarity between a newly detected image and a previously stored object. Reply at 6-7. Petitioner misreads the embodiment of Figure 4 by stating that “both keywords are proposed simultaneously.” *Id.* at 6. Petitioner is incorrect. According to the ’807 patent, Figure 4 shows an example of proposing human information in which the preregistered keyword options are “eldest brother,” “family,” “relative,” and “friend.” EX1001 at 9:30-34. The ’807 patent makes explicit that these categories “are proposed according to the above *priority. If there is an item which coincides the priority, the user selects such an item.*” *Id.* at 9:34-37. Thus, it is not true that the categories are shown “simultaneously” as Petitioner asserts. Rather, the categories are shown hierarchically.

Moreover, Petitioner does not dispute that the “eldest brother” must be a single, unique, specific person. Accordingly, the embodiment disclosed in Figure 4 must be capable of identifying the one and only “eldest brother” to determine that a newly detected human “coincides” with that category. *See id.*

Accordingly, the specification of the '807 patent support Patent Owner's construction of “similar to the object of the image previously contained in the database” as “sufficiently similar to identify the specific object of the image previously contained in the database,” and Petitioner's arguments should be rejected.

C. Patent Owner's Construction is Supported by Unrebutted Expert Testimony.

Patent Owner submitted the opinion of an expert and POSITA in the relevant art, Dr. Nikos Papanikolopoulos, regarding, among other things, claim construction. EX2001, ¶¶ 56-69. Dr. Papanikolopoulos opined that Patent Owner's proposed construction of “similar to the object of the image previously contained in the database” as “sufficiently similar to identify the specific object of the image previously contained in the database” is how a POSITA would understand that term in light of the patent, specification, and prosecution history. *Id.* Accordingly, Patent Owner has submitted extrinsic evidence directly on point that supports Patent Owner's construction. Petitioner, in a footnote, seeks to dismiss the entirety

of Patent Owner's expert's testimony because it is allegedly "conclusory" and "cannot override the intrinsic record." Reply at 10, n. 3. Petitioner's argument fails.

First, Petitioner does not explain how Dr. Papanikolopoulos' testimony is "conclusory" despite citing to multiple supporting excerpts from the '807 patent throughout his declaration. *See* EX2001, ¶¶ 56-69. On the contrary, Dr. Papanikolopoulos' testimony is thoroughly supported by the intrinsic evidence, as well as reasoned explanation from the perspective of a POSITA. *Id.*

Second, Dr. Papanikolopoulos' testimony is unrebutted. Petitioner's expert did not opine on claim construction or how a POSITA would understand any claim term beyond a generic statement that "none of the claim terms require further construction." EX1003, ¶ 52. Petitioner did not submit a supplemental expert declaration in response to Patent Owner's POR or to rebut the opinions of Dr. Papanikolopoulos. Nor did Petitioner depose Dr. Papanikolopoulos regarding his claim construction opinions. *See* Paper 21. Instead of rebutting Dr.

Papanikolopoulos' testimony with evidence, Petitioner resorts to pure attorney argument, which cannot rebut evidence. *Epic Games, Inc. v. IngenioShare, LLC*, IPR2022-00295, Paper 27, 15 (P.T.A.B. May 19, 2023) ("In evaluating the fully developed record, we necessarily accord greater weight to Dr. Rouskas's testimony than to Petitioner's attorney argument as advanced in Petitioner's Reply."); *Gemtron Corp. v. Saint-Gobain Corp.*, 572 F.3d 1371, 1380 (Fed. Cir. 2009)

(“[U]nsworn attorney argument . . . is not evidence and cannot rebut . . . other admitted evidence . . .”). Testimony that is reasoned, supported by citations to relevant evidence, and unrebutted is entitled to significant weight. *GSI Tech., Inc. v. Cypress Semiconductor Corp.*, IPR2014-00121, Paper 46, 16 (P.T.A.B. Apr. 9, 2015) (“Patent Owner’s expert’s testimony stands unrebutted. Our review of that testimony shows that it is reasoned, and supported by the citations to Sharp. Thus, we decide that Patent Owner’s evidence is entitled to significant weight.”). Because Dr. Papanikolopoulos’ testimony is reasoned, supported by relevant citations, and unrebutted, his testimony should be given significant weight. *Id.*

D. Petitioner’s Additional, Unsupported Attorney Arguments Fail.

1. Petitioner’s Argument that Patent Owner Seeks to Narrow the Challenged Claims to One Example Fail.

Petitioner accused Patent Owner of allegedly seeking to narrow the Challenged Claims to a single example, but never identifies what example Petitioner is referring to. *See* Reply at 9-12. Nevertheless, Petitioner’s arguments in this section are easily rebutted.

First, Petitioner repeats the unsupported assertion that the claimed image retrieving device need only be capable of determining the general category of object, such as “human” or “car.” Reply at 9-10. This argument is redundant with Petitioner’s arguments regarding the specification’s support for Patent Owner’s

proposed construction and fail for the same reasons. *See, supra*, Section II.B.

Second, Petitioner argues that because the '807 patent allows for user feedback, that fact somehow undercuts Patent Owner's arguments. Petitioner is, again, incorrect. Just because the system allows for a confirmation step after the similarity determination does not change the level of specificity with which the similarity determination must be made in the first place. Indeed the '807 patent explains that when a "very similar" face is detected, in the case of a human, "the information for such a human is proposed so as to expedite the user to confirm." EX1001 at 9:19-23. Thus, the fact that image retrieving device is capable of determining that a detected object is sufficiently similar to identify the specific object of the image previously contained in the database merely expedites the confirmation step. The existence of the confirmation step, which also permits a user to add or correct information, does not obviate the need for the object similarity step.

2. Petitioner's Arguments Regarding Alleged "Ambiguity" and Indefiniteness are Irrelevant and Unsupported.

Petitioner asserts that Patent Owner's construction would make the claims ambiguous and therefore indefinite. Reply at 12-14. As an initial matter, the issue of indefiniteness is not before the Board, which need only determine whether Petitioner has put forth sufficient evidence to meet its burden of establishing that

the Challenged Claims would have been obvious over the specific combinations identified in the Petition. *Emerson Elec. Co. v. SIPCO, LLC*, IPR2017-00001, Paper 48, 35 (P.T.A.B. Mar. 16, 2018). Because indefiniteness is not before the Board, Petitioner's arguments regarding indefiniteness are irrelevant.

In addition to being irrelevant, Petitioner's arguments also fail because they are unsupported. Indefiniteness is determined from the perspective of a POSITA. *Nautilus, Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 910-11 (2014). Petitioner, however, offers only conclusory attorney argument that Patent Owner's construction would fail to inform a POSITA about the scope of the claims with reasonable certainty. *See* Reply at 12-14. Petitioner does not submit any testimony from a POSITA to support its arguments. Nor did Petitioner depose Patent Owner's expert regarding his opinions with respect to Patent Owners construction. Accordingly, Petitioner's attorney argument regarding indefiniteness is entitled to little or no weight. *See Icon Health & Fitness, Inc. v. Strava, Inc.*, 849 F.3d 1034, 1043 (Fed. Cir. 2017) ("Attorney argument is not evidence.").

Patent Owner's construction, on the other hand, is supported by the unrebutted testimony of Dr. Papanikolopoulos, and is therefore entitled to significantly greater weight than Petitioner's attorney argument. *Epic Games, Inc. v. IngenioShare, LLC*, IPR2022-00294, Paper 30, 24 (P.T.A.B. May 19, 2023) ("We are accordingly left to discern how a person of ordinary skill in the art would

understand these drawings and their related descriptions by weighing Petitioner’s attorney argument against the expert testimony of Dr. Rouskas that Patent Owner cites. . . . As we note above, we necessarily accord greater weight to Dr. Rouskas’s testimonial evidence.”). Because Dr. Papanikolopoulos’ testimony is unrebutted, and entitled to significantly more weight than Petitioner’s unsupported attorney argument, Petitioner’s arguments regarding any alleged ambiguity or indefiniteness should be disregarded.

III. Stubler Fails to Anticipate or Render Obvious the Challenged Claims.

A. Petitioner’s Arguments Regarding the “image storing section” Fail.

Petitioner offers two alleged rebuttals to Patent Owner’s explanation that the asserted references fail to teach the claimed image storing section. First, Petitioner asserts that Patent Owner’s argument is based on its “improper” construction and that the Board has “already rejected” Patent Owner’s argument. Reply at 16-17. Second, Petitioner argues that Stubler discloses the claimed image storing section because Stubler allegedly does perform “a determination of facial similarity.” Both arguments fail.

First, Petitioner argues that Patent Owner’s arguments fail because they are premised on Patent Owner’s claim construction of “similar to the object of the image previously contained in the database” as “sufficiently similar to identify the

specific object of the image previously contained in the database.” Reply at 16. As discussed above, Patent Owner’s construction is the correct construction because intrinsic evidence, including the claims and specification of the ’807 patent, as well as the unrebutted testimony of Dr. Papanikolopoulos demonstrate that Patent Owner’s construction is how a POSITA would understand the claim term. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312-13 (Fed. Cir. 2005) (*en banc*).

Further, Petitioner is incorrect that “the Board has also already rejected Patent Owner’s argument.” Reply at 17. The Board is not bound by its institution decision. *TriVascular, Inc. v. Samuels*, 812 F.3d 1056, 1068 (Fed. Cir. 2016) (“[T]he Board is not bound by any findings made in its Institution Decision. At that point, the Board is considering the matter preliminarily without the benefit of a full record. The Board is free to change its view of the merits after further development of the record, and should do so if convinced its initial inclinations were wrong.”). Here, the Board’s Institution Decision (Paper 9) was issued based on a preliminary record that lacked, among other things, the unrebutted testimony of Dr. Papanikolopoulos.

Second, Petitioner argues that Stubler discloses the claimed image storing section because Stubler allegedly does perform “a determination of facial similarity using “known algorithms” via Stubler’s reference to another reference, Turk. Reply at 17-18. Petitioner does not contest that Turk is not incorporated by

reference. But according to Petitioner Turk is “an example of a known algorithm” and therefore, “need not be incorporated by reference.” Reply at 20, n. 7. Petitioner is incorrect. Where a reference merely shows that a given feature was “known,” but not “well known,” that reference must be included in a ground of unpatentability to be relied upon to establish an element in the challenged claim. *Bank of America, N.A. v. Nant Holdings IP, LLC*, IPR2021-01304, Paper 42, 55-56 (P.T.A.B. Feb. 1, 2023).

Here, Petitioner merely asserts that Turk’s algorithm was “known,” but not “well known.” As stated by the Board in *Nant*, “the difference is not insignificant.” *Id.* at 56. Under *Nant*, only background knowledge that is “well known” need not be explicitly included in the ground of unpatentability asserted by Petitioner. *Id.* Moreover, the recent trend of the Federal Circuit and the Office has been to more strictly adhere to the statutory requirements that a Petitioner describe with specificity where each element of the challenged claims may be found in the specifically asserted references. *See Qualcomm Inc., v. Apple Inc.*, 24 F.4th 1367, 1373-77 (Fed. Cir. 2022) (vacating and remanding to determine whether AAPA improperly formed the “basis” of petitioner’s patentability challenge); *see also Qualcomm Inc. v. Apple Inc.*, 134 F.4th 1355, 1364-65 (Fed. Cir. 2025) (rejecting USPTO’s “in combination” rule that requires the Board to consider AAPA whenever an IPR petition combines AAPA with prior art patents or printed

publications because “it cannot be that AAPA never forms the basis of a ground under § 311(b) whenever AAPA is combined with prior art patents or printed publications.”); *see also* “Enforcement and Non-waiver of 37 C.F.R. § 42.104(b)(4) and Permissible Uses of General Knowledge in Inter Partes Reviews, July 31, 2025. Petitioner’s hand-waiving attempt to rely on a reference outside of the instituted grounds that is not incorporated by reference in any of the asserted references is therefore improper to demonstrate an essential claim element.

B. Petitioner’s Arguments that Stubler’s “Regional metadata” Discloses the Claimed “Object of the Image Previously Stored in the Database” Fail.

Petitioner offers a number of vague and unsupported arguments claiming that Stubler’s disclosure of “regional metadata,” through its incorporated references, Sung and Yang, disclose the claimed “object of the image previously stored in the database. Reply at 18-23. Each argument fails.

First, Petitioner asserts that the Board has already rejected Patent Owner’s arguments. Reply at 18-19. As discussed above, the Board’s preliminary findings were based on an incomplete record, without the benefit of Dr. Papanikolopoulos’ testimony, and in any event, the Board is not bound by those findings. *Supra*, Section III.A.

Second, Petitioner attempts to refute Patent Owner’s arguments by pointing out that Sung and Yang both disclose detecting certain regional information about

an image, such as the location, size, or color of objects. Reply at 19-20. Petitioner then asserts that any distinction between the information detected in Sung and Yang is “inconsequential” because, as described in the ’807 patent, the objects may be representations of objects. *Id.* at 19. Petitioner misses the point. As explained in the POR (at 14-21) and above (*supra*, Section II), the claims dictate a *two*-step process in which an object is (1) detected and (2) compared to a previously stored object to determine whether the newly detected object has been previously stored in the database. Sung and Yang relate only to the first step, object detection. Sung and Yang provide information related to the size, location, and color of objects, but are not, themselves the objects or representations of objects. POR at 34-35. The specific type information that is detected in Sung and Yang is critical here because the claims, properly construed, require that the image retrieving device be capable of determining whether a newly detected object is “sufficiently similar to identify the specific object of the image previously contained in the database.” EX2001, ¶¶ 56-69. Petitioner makes no showing that the information detected in Sung and Yang can be used to determine whether a newly detected object is sufficiently similar to identify the specific object of the image previously contained in the database. Accordingly, Petitioner fails to rebut Patent Owner’s showing that Stubler’s discussion of regional metadata, through its incorporation of Sung and Yang, fails to disclose the claimed “object of the image.”

Third, Petitioner asserts that Patent Owner does not dispute that Stubler discloses using “known algorithms” to determine facial similarity. Reply at 20. Patent Owner Disagrees. As explained in the POR, in Stubler, the acquired images are clustered or grouped *before* any comparison between newly acquired images and stored images occurs. POR at 22 (citing Stubler, ¶[0031]; EX2001, ¶ 72). Stubler never mentions using “known algorithms,” “facial similarity,” or “eigenfaces” in its discussion of determining similarity between previously stored images and newly acquired images. *See* Stubler, ¶[0031]. Petitioner’s Reply does not dispute, and therefore concedes that Stubler’s disclosure of “known algorithms” and “eigenfaces” is related exclusively to image clustering and not to the detection of similarity between clustered images and newly acquired images.

Fourth, Petitioner asserts that Stubler’s textual description of image features (e.g., “grass” or “face”) discloses the claimed object because the claimed object may be stored as written datum. Reply at 21. Petitioner’s argument fails because the fact that the ’807 states that the objects may be stored as a written datum does not alter the fact that the objects must be usable to determine whether an object in an acquired image is “similar to the object of the image previously contained in the database,” as a POSITA would understand that phrase, namely, “sufficiently similar to identify the specific object of the image previously contained in the database.” POR at 33, 37-39. Petitioner does not attempt to explain how the textual

descriptions described in Stubler meet the claimed “object of the image.”

Accordingly, Petitioner’s argument fails.

Fifth, Petitioner attempts to analogize Stubler’s detection of certain non-textual region metadata to the claimed object. Petitioner, however, does not point to anywhere in Stubler that discloses storing such non-textual metadata as an object, let alone using it to determine whether an acknowledged object in a newly acquired image is sufficiently similar to that metadata to identify the specific object of the image previously contained in the database. Accordingly, Petitioner fails to meet its burden of demonstrating that Stubler discloses the claimed “object of the image previously stored in the database.”

C. Petitioner’s Arguments that Stubler Anticipates or Renders Obvious the Challenged Claims, Even Under the Proper Construction, Fail.

Petitioner argues that Stubler anticipates or renders obvious the Challenged Claims even under the proper construction of “similar to the object of the image previously contained in the database,” apparently, because Stubler uses the word “similar” several times. *See* Reply at 23-25. Petitioner’s argument is conclusory and fails to present any rebuttal to Patent Owner’s argument. As explained in the POR, the level of similarity that Stubler can detect between objects is limited to high-level, general categories, such as “sky,” “grass,” or “face.” POR at 33-37. These high-level determinations constitute the entirety of the Stubler’s regional

metadata on which Petitioner relies. The POR and the unrebutted testimony of Dr. Papanikolopoulos explain that Stubler’s high-level, textual descriptions of image regions would not be usable to determine that an object in a newly acquired image is sufficiently similar to a previously stored object to identify the specific object previously stored in the database. POR at 37-41; EX2001, ¶¶ 92-99.

Petitioner does not rebut Patent Owner’s arguments, and repeats the same failed arguments discussed above. For example, Petitioner incorrectly asserts that Stubler discloses using “known algorithms” to determine similarity between stored images and newly acquired images. Reply at 25. As discussed above, Stubler does not disclose using “known algorithms” to determine similarity between previously stored images and newly acquired images, but to cluster together groups of images prior to determining any similarities between acquired images and previously stored images. EX1005, ¶¶ [0031], [0034].

IV. Conclusion

For the reasons stated herein and in the POR, Petitioner has failed to demonstrate that the Challenged Claims of the ’807 patent are unpatentable.

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Patent 7,486,807

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Respectfully submitted,

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**CERTIFICATE OF COMPLIANCE WITH TYPE-VOLUME
LIMITATION**

I hereby certify that the above Patent Owner's Sur-Reply consists of 5,434 words in 14 point Times New Roman font as calculated by the word count feature Microsoft Office 2016, in compliance with 37 C.F.R. § 42.24(a)(i) and (b)(1). This word count is inclusive of all text and footnotes but not including a table of contents, a table of authorities, mandatory notices under § 42.8, a certificate of service or word count, or appendix of exhibits or claim listing.

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CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. § 42.6(e)(4), the undersigned certifies that on August 18, 2025, a copy of PATENT OWNER'S SUR-REPLY was served in its entirety by electronic mail on Petitioner's counsel at the following addresses indicated in Petitioner's Mandatory Notices:

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