

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

META PLATFORMS, INC. ET AL.,
Petitioner,

v.

ANGEL TECHNOLOGIES GROUP LLC,
Patent Owner.

IPR2023-00059
Patent 10,417,275 B2

Before MIRIAM L. QUINN, SHARON FENICK, and MICHAEL T.
CYGAN, *Administrative Patent Judges*.

CYGAN, *Administrative Patent Judge*.

DECISION
Granting Institution of *Inter Partes* Review
35 U.S.C. § 314

I. INTRODUCTION

A. *Background and Summary*

Meta Platforms, Inc. (“Petitioner”) filed a Petition (Paper 1, “Pet.”) requesting institution of *inter partes* review of claims 1–12 of U.S. Patent No. 10,417,275 (Ex. 1001, the “’275 patent”). Angel Technologies LLC (“Patent Owner”) filed a Preliminary Response (“Prelim. Resp.”). Paper 9. We authorized additional briefing on certain matters. Ex. 1036. Petitioner filed a Reply (Paper 14, “Pet. Reply”) and Patent Owner filed a Sur-reply (Paper 15, “PO Sur-reply”).

Pursuant to 35 U.S.C. § 314(a), an *inter partes* review may be instituted only if “the information presented in the petition . . . and any [preliminary] response . . . shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.”

For the reasons given below, on this record Petitioner has established a reasonable likelihood that it would prevail in showing the unpatentability of claim 1 of the ’275 patent. Accordingly, we institute an *inter partes* review as to claims 1–12 of the ’275 patent and both of the asserted grounds of unpatentability.

B. *Real Parties in Interest*

Petitioner identifies Meta Platforms, Inc. (formerly Facebook, Inc.) and Instagram, LLC as the real parties in interest. Pet. 2. Patent Owner identifies Angel Technologies Group LLC as the real party in interest. Paper 4, 2.

C. Related Matters

Petitioner represents that the '275 patent is involved in *Angel Techs. Group LLC v. Facebook, Inc. and Instagram LLC*, No. 2:21-cv-08459-CBM-JPR (C.D. Cal.), and that

On June 30, 2022, the district court found the asserted patents, including the '275 Patent, invalid under 35 U.S.C. § 101 and dismissed the case. On July 29, 2022, PO filed a Notice of Appeal. The case has been docketed as the following: *Angel Techs. Group, LLC v. Meta Platforms, Inc.*, No. 2022-2100 (Fed. Cir.). The opening appeal brief is currently due on November 2, 2022.

Pet. 2–3. The parties represent that Petitioner has filed, at substantially the same time that this Petition was filed, petitions for *inter partes* review against related family members U.S. Patent No. 8,954,432 (IPR2023-00057), U.S. Patent No. 9,959,291 (IPR2023-00058), and U.S. Patent No. 10,628,480 (IPR2023-00060). Pet. 3; Paper 4, 2.

D. The '275 Patent

The '275 patent is titled “Artificial Intelligence Assisted Tagging of Users in Digital Media Online.” Ex. 1001, code (54). The '275 patent issued from Application Serial No 15/933,531, filed on March 23, 2018, and claims priority, via continuation applications, to Provisional Application No. 60/248,949, filed on November 15, 2000. *Id.* at codes (21), (22), (60), (63).

The '275 patent relates to storing and sharing images through a communications network, and for supplying and receiving information about the existence of objects within images. Ex. 1001, 1:20–25. A users database (230) receives, stores, and provides information about people, who access the host computer, and may include information for each user such as a user identifier, the user’s name, and user’s email address. *Id.* at 7:18–25. An image database (250) receives and stores information about photos. *Id.* at

7:27–34. An identifications database (240) receives, stores, and provides information about relationships between users and photos, such as whether the user is in the photo, including the coordinates of the user or other person within the photo. *Id.* at 7:45–56. The following is an example of the three databases:

User database			
User I.D.	Name	Email	Contacts
007	John Doe	jdoe@doe.com	John, Jane, Lisa
008	Jane Doe	janedoe@doe.com	Jane, John, Fuzzie

Images database			
Image I.D.	Location	Caption	Uploaded by
ABCD	C:\dir\my_image.jpg	John and Jane at the beach	007

Identifications database			
User I.D.	Image I.D.	Shared by	Coordinates
007	ABCD	007	50, 50, 25
008	ABCD	007	25, 75, 10

Id. at 8:45–66. Through uploading of user data by John Doe and Jane Doe to the user database, and creation of an image record in the Image database when a user uploads a photo to the host computer, a relationship is created between the user and the image that appears in the Identifications database. *Id.* at 7:58–9:3, 12:52–55.

Following identification of an object within an image, artificial intelligence algorithms (e.g., an image recognition system) may be applied

to the images. *Id.* at 13:31–36. Such algorithms may be purposed to further define characteristics of images, obtain identifying information, and/or search a database for other possible matches to a named object. *Id.* at 13:36–39.

E. Illustrative Claim

Claim 1 is illustrative, and recites as follows:

A method implemented within a computer system including a plurality of computing devices connected via a communications network, the method associating users of the computer system with digital media accessible to the computer system, the method comprising:

distinguishing between users of the computer system via one or more unique user identifiers stored in a computer-readable medium accessible to the computer system, the users of the computer system including a named user and an identifying user, the named user being different from the identifying user, the named user having naming information associated with a unique user identifier of the named user;

in response to an input from the identifying user indicating a selection of an image, determining a unique image identifier corresponding to the image selected;

receiving, from the identifying user, an input indicating a selection of the named user from a list of other users of the computer system, the list of other users including naming information previously provided by other users, the list of other users including one or more users in a contact list associated with the identifying user, the identifying user's contact list including the named user;

in response to receiving from the identifying user the input indicating the selection of the named user from the list of other users, determining a unique user identifier of the named user;

receiving, from the identifying user, one or more inputs indicating a set of coordinates corresponding to a location of the named user within the image; and

applying artificial intelligence algorithms to image data of other images accessible to said computer system to locate images matching characteristics of a subset of image data bound by the set of coordinates corresponding to the location of the named user within the image, wherein the set of coordinates corresponding to the location of the named user within the image is associated with the unique user identifier of the named user and the unique image identifier.

F. Evidence

Petitioner relies on the following patent evidence.

Name	Patent Document	Exhibit
Sharpe	U.S. 7,461,099 B1	1005
Eintracht	U.S. 6,687,878 B1	1006
Carey	U.S. 6,714,793 B1	1007

Petitioner further relies upon Kuchinsky et al., “FotoFile: A consumer Multimedia Organization and Retrieval System,” CHI ’99: Proceedings of the SIGCHI Conference on Human Factors in Computing Systems, 496–503 (May 1999) (Ex. 1011, “FotoFile”).

Petitioner relies upon a declaration by Dr. Benjamin Bederson. Ex. 1003.

G. Prior Art and Asserted Grounds

Petitioner asserts that claims 1–12 would have been unpatentable on the following grounds:

Claim(s) Challenged	35 U.S.C. §	Reference(s)/Basis
1–12	103(a) ¹	Sharpe, Eintracht, FotoFile
1–12	103(a)	Sharpe, Eintracht, FotoFile, Carey

¹ Petitioner asserts, and we agree for purposes of institution, that the pre-AIA patentability scheme applies to the ’275 patent. *See* Pet. 5.

II. ANALYSIS

A. *Legal Standards*

A patent claim is unpatentable under 35 U.S.C. § 103(a) if the differences between the claimed subject matter and the prior art are such that the subject matter, as a whole, “would have been obvious at the time the invention was made to a person having ordinary skill in the art [to which said subject matter pertains].” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved on the basis of underlying factual determinations including: (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of ordinary skill in the art; and (4) objective evidence of non-obviousness.² *See Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

B. *Level of Ordinary Skill in the Art*

Petitioner asserts that a person of ordinary skill in the art in 2001 would have had at least a bachelor’s degree in computer science, electrical engineering, computer engineering, or a similar technical field, with at least two years of experience in the field of networked and Web-based media applications. Additional experience could substitute for less education, and additional education could likewise substitute for less experience.

Pet. 13–14 (citing Ex. 1003 ¶ 39). Patent Owner submits an essentially identical description of this hypothetical person. Preliminary Resp. 15. We do not determine any meaningful significance to the differences between the parties’ representations. For purposes of this Decision, we adopt Petitioner’s

² Neither party presents evidence or arguments regarding objective evidence of non-obviousness at this stage.

proposed level of ordinary skill, as it appears to be consistent with the specification of the '275 patent and the prior art of record.

C. Claim Construction

In an *inter partes* review, we construe a patent claim “using the same claim construction standard that would be used to construe the claim in a civil action under 35 U.S.C. § 282(b).” 37 C.F.R. § 42.100(b) (2019). Under this standard, the words of a claim generally are given their “ordinary and customary meaning,” which is the meaning the term would have to a person of ordinary skill at the time of the invention, in the context of the entire patent including the specification. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–13 (Fed. Cir. 2005) (en banc).

Here, Petitioner asserts that the term “user identifier” should be construed as “a series of characters identifying a user.” Pet. 14. Petitioner also asserts that the term “contact list” should be construed as a “list of people known to the user.” *Id.* at 16.

Patent Owner asserts that Petitioner fails to provide any explanation as to why construction is necessary for either term. Prelim. Res. 30–31. Patent Owner asserts that no term requires express construction. Prelim. Resp. 16.

We note that no term is in controversy, and therefore, we do not need to construe any term. *See Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (noting that “we need only construe terms ‘that are in controversy, and only to the extent necessary to resolve the controversy’” (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999))). Consequently, each claim term is given its ordinary and customary meaning.

In additional argument, Patent Owner asserts that the Petition should be denied because the Petition failed to provide any evidence to support its

claim construction. Prelim. Resp. 29–30. Patent Owner faults the Petition’s claim construction for relying only on conclusory statements from Dr. Bederson. *Id.* at 30.

We disagree that a failure to support a proposed claim construction by evidence is, by itself, grounds for denial of the Petition. Patent Owner cites to a Board decision in which a Petition was denied not for failure of evidentiary support, but because the Board found it an “erroneous claim construction” such that the argument based thereon was not persuasive. Prelim. Resp. 29 (emphasis omitted). Further, Patent Owner’s argument admits that “most petitions . . . will rely on the affidavits of experts,” not that all petitions must provide evidentiary support for all statements therein. *Id.* at 30 (citing 77 Fed. Reg. at 48763). Here, we have determined that no term requires construction at this stage, and therefore, Petitioner’s statements as to construction of certain terms do not bear upon the decision to institute.

D. Obviousness over Sharpe, Eintracht, and FotoFile

Petitioner asserts that claims 1–12 are unpatentable under § 103(a) as obvious over Sharpe, Eintracht, and FotoFile. Patent Owner provides arguments and evidence against these assertions.

Upon consideration of Petitioner’s explanations and the totality of evidence in this current record, we are persuaded that Petitioner has demonstrated a reasonable likelihood of prevailing in showing that claim 1 is unpatentable under § 103(a) as obvious over the combination of Sharpe, Eintracht, and FotoFile.

1. Sharpe

Sharpe is titled “Method and System for Archiving and Retrieving Items Based on Episodic Memory of Groups of People.” Ex. 1005, code (54). Sharpe relates to “the archiving and retrieval of digital media items

wherein the archiving and retrieval process is performed based on episodic memory of predefined groups of people.” *Id.* at 1:6–9. Sharpe describes that work in the storage and archiving techniques for digital media are concentrated on “facilitating the retrieval of a particular digital media item; i.e., one which matches the user’s requirements exactly.” *Id.* at 1:11–14. Sharpe contrasts prior work relying on semantic memory with the described invention, “based on the common episodic memory of a strong social group,” which relies upon and enhances “group ‘memory’” and “group nostalgia.” *Id.* at 1:14–32.

To archive digital media items, a user identifies a group to which the user belongs, and then digital media items to be archived for the group are identified. *Id.* at 1:37–45. Using a pull-down menu on a graphical user interface [“GUI”], the user may associate each media item with one of three parameters: persons, an event, and time. *Id.* at 1:47–2:11. Later, other users may search and retrieve desired photos by searching using one or more of those parameters. *Id.* at 2:12–24.

a) Status as Prior Art

The burden of proving unpatentability in an *inter partes* review, including that a reference qualifies as prior art, rests solely with the Petitioner. 35 U.S.C. § 316(e); *Dynamic Drinkware, LLC v. National Graphics, Inc.*, 800 F.3d 1375, 1378–1379 (Fed. Cir. 2015). Patent Owner bears no countervailing burden except that it, not Petitioner, need provide evidence to support its assertions that Sharpe is not actually prior art (the “burden of production”). *Id.* at 1381.

Patent Owner argues that the Petitioner failed to provide evidence that would show Sharpe to not be antedated by prior inventor activity. PO Sur-reply 1–2. However, Petitioner carries its initial burden of production by

pointing to a reference having a date such that it qualifies as prior art. *Dynamic Drinkware*, 800 F.3d at 1379 (“Dynamic [the petitioner] also had the initial burden of production, and it satisfied that burden by arguing that [applied reference] Raymond anticipated the asserted claims of the ’196 patent under § 102(e)(2)”). The burden of production then shifts to Patent Owner. *Id.* at 1380 (“The burden of production then shifted to [patentee] National Graphics to argue or produce evidence that . . . Raymond is not prior art because the asserted claims in the . . . patent are entitled to the benefit of a filing date (constructive or otherwise) prior to the filing date of Raymond.”). The burden of production returns to Petitioner after Patent Owner satisfies its burden of production. *Id.* (“the burden of production returned to [Petitioner] to prove that either the invention was not actually reduced to practice as argued, or that the Raymond prior art was entitled to the benefit of a filing date prior to the date of [Patentee’s] reduction to practice”). Thus, the Petition itself is not required to produce all possible evidence to support Petitioner’s assertion that Sharpe is prior art.

(1) *Earlier date of invention*

Patent Owner argues that the inventor of the ’275 patent was the first to invent the claimed invention, and that the evidence of record shows that the ’275 patent antedates the Sharpe reference. Prelim. Resp. 17.

(a) *Legal Standards*

For a patent in which at least one claim has an effective filing date prior to the March 16, 2013 applicability date of the American Invents Act’s revisions to 35 U.S.C. § 102, patentability reflects “the principle that the patent right is granted to the first inventor rather than the first to file a patent application.” *Paulik v. Rizkalla*, 760 F.2d 1270, 1272 (Fed. Cir. 1985). The applicable version of § 102 requires that a prior art reference be “before the

invention thereof by the applicant for patent,” unless the reference qualifies under the statutory bar provisions of §§ 102(b),(d). 35 U.S.C. § 102 (Nov. 2, 2002). Sharpe’s filing date of September 26, 2000 is asserted by Petitioner to qualify as prior art under pre-AIA § 102(e), and therefore neither statutory bar provision is applicable. Pet. 16; Pet. Reply 5 (pointing to the November 15, 2000 filing date of the ’994 provisional application as the critical date for the ’275 patent).

Thus, Patent Owner may produce evidence to show that the filing date of Sharpe was not available as prior art before the date of invention of the ’275 patent. *Mahukar v. C. R. Bard*, 79 F.3d 1572, 1576 (Fed. Cir. 1996). If an earlier date of invention is shown, Sharpe is no longer prior art. *Id.*

To show an earlier date of invention, the inventor of the ’275 patent must be the first to conceive and the first to reduce to practice, because “the person who first reduces an invention to practice is ‘prima facie the first and true inventor.’” *Id.* at 1577 (quoting *Christie v. Seybold*, 55 F. 69, 76 (6th Cir. 1893)((Taft, J.)). Alternately, the inventor must be “the first to conceive the invention and [have] exercised reasonable diligence in later reducing that invention to practice.” *Id.* (citing *Price v. Symsek*, 988 F.2d 1187, 1190 (Fed. Cir. 1993)).

Patent Owner does not clearly state whether its theory of antedating is based upon an actual reduction to practice prior to the filing date of Sharpe, or conception prior to the filing date of Sharpe coupled with reasonably continuous diligence from just prior to the filing date of Sharpe until the date of the invention’s reduction to practice. *See, e.g.*, Prelim. Resp. 17 (“the inventor of the ’275 patent conceived of the invention claimed in the ’275 patent before Sharpe was filed, and worked diligently to reduce it to

practice, both as an actual product and then also by filing the provisional application on November 15, 2000.”). We consider both possibilities.

(b) *Actual Reduction to Practice*

With respect to actual reduction to practice, Patent Owner states that “Mr. Frigon had conceived and reasonably continued activity to reduce to practice the concept of photo-tagging, in accordance with the Challenged Claims,” prior to September 26, 2000. Prelim. Resp. 21. Patent Owner asserts that Mr. Frigon developed and performed code for “each of the elements relied upon by Petitioner from the Sharpe reference in April 2000,” based upon a declaration by the inventor and other supporting evidence. *Id.* at 21–22. Patent Owner points to Mr. Frigon’s Declaration as establishing that code for this purpose was developed starting in April 2000. *Id.* at 22–26 (citing Exs. 2005–2013). Patent Owner also asserts that “[the] code . . . was up and running” in September 2000. Prelim. Resp. 26. Patent Owner asserts that Mr. Frigon’s Declaration, corroborated by Chris Malone’s Declaration, “permits the Patent Owner to swear behind the Sharpe reference.” *Id.* (citing Exs. 2005, 2016).

We determine that the current record lacks sufficient evidence to show an actual reduction to practice. For actual reduction to practice, no showing of diligence is required, but as recognized by Patent Owner, “an inventor must prove that he constructed his claimed invention and that it would work for its intended purpose.” *Mazzari v. Rogan*, 323 F.3d 1000, 1005 (Fed. Cir. 2003) (cited at Prelim. Resp. 20–21). Additionally, in establishing that such an idea existed at the relevant time, an inventor’s testimony requires corroboration, and “[a]n evaluation of all pertinent evidence must be made so that a sound determination of the credibility of the inventor’s story may be reached.” *Id.* (quoting *Price*, 988 F.2d at 1195) (explaining that “[t]his

requirement arose out of a concern that inventors testifying in patent infringement cases would be tempted to remember facts favorable to their case by the lure of protecting their patent”).

Mr. Frigon states that evidence of the reduction to practice of “elements of the invention claimed” is shown in attached copies of the code last modified on April 16, 2000. Ex. 2005 ¶¶ 4–5. In his declaration, and as reflected in Patent Owner’s mapping of claim elements to evidence supporting prior invention, Mr. Frigon does not provide any statement that his invention at that time included artificial intelligence algorithms to locate images as claimed. *Id.* at ¶ 15. At best, Mr. Frigon testifies that “it was known in the industry” that such algorithms could be applied. *Id.* Nor does any evidence tend to corroborate that artificial intelligence algorithms were part of Mr. Frigon’s invention at that time.

Further, Patent Owner admits that the claim limitation of “filtering the input list to users in a contact list” is “not disclosed in the source code.” PO Sur-Reply, 3. Furthermore, that code is stated merely to be “a list of all users who have been associated with photos.” Prelim. Resp. 23–24. Although Patent Owner points to Mr. Frigon’s declaration for support, Patent Owner points solely to such code to show the multiple steps of receiving an input from the identifying user of a named user from a list of users including users in a contact list associated with the identifying user, and in response to that input, determining a unique user identifier of the named user. Prelim Resp. 24–25. Although Mr. Frigon indicates that this concept had “been conceived at this point, and was in development at the time of drafting the provisional application,” Mr. Frigon does not provide any statement tending to show that it was actually reduced to practice. Ex. 2005 ¶ 15.

Because of the lack of evidence for the indicated claim requirements, there is insufficient evidence to show that Mr. Frigon “constructed his claimed invention.” Consequently, the current record does not show an actual reduction to practice of the invention of claim 1 prior to the effective date of Sharpe.

*(c) Constructive Reduction to Practice
and Reasonably Continuous Diligence*

Conception requires “a definite and permanent idea of the complete and operative invention.” *Mahukar*, 17 F.3d at 1577 (citing *Burroughs Wellcome Co. v. Barr Labs., Inc.*, 40 F.3d 1223, 1228 (Fed. Cir. 1994)).

Patent Owner relies upon Mr. Frigon’s declaration, “subsequent corroborating evidence and additional third party declarations,” and the content of the provisional patent application to show conception. Prelim. Resp. 19; PO Sur-Reply 2.

Patent Owner argues that Mr. Frigon’s Declaration shows that Mr. Frigon “was in possession of at least as much of the subject matter as relied upon . . . from the Sharpe reference.” Prelim. Resp. 21. Patent Owner points to the code exhibits as demonstrating that Mr. Frigon had conceived of the “concept of photo-tagging.” *Id.* However, as discussed *supra*, Mr. Frigon does not provide any statement pertaining to the claim requirements of applying artificial intelligence algorithms to image data as claimed. Ex. 2005.

Patent Owner further points to the August 15, 2000 provisional application as providing written description support for the disputed claim elements. However, the ’994 provisional application does not provide support for applying artificial intelligence algorithms to image data to locate

images as claimed. *See* Ex. 2017, 6 (describing user-controlled identifying and locating of images).

Patent Owner seeks to prove conception of only those claim limitations that are being relied upon by Petitioner in Sharpe. Patent Owner cites *In re Schreiber* for the proposition that a reference may be antedated by showing prior invention “with respect to only so much of the claimed invention as the references disclose. . . , or only so much as to render the claimed invention obvious.” Prelim. Resp. 20 (citing *In re Schreiber*, 587 F.2d 59 (CCPA 1978) and citing *In re Stempel*, 241 F.2d 755, 759 (CCPA 1957) (discussing the extent of a generic claim needing to be shown for anticipation)). However, Patent Owner’s interpretation of *Schreiber* and *Stempel* has been expressly foreclosed, as an unwarranted expansion of the limited genus-species situation in *Stempel* and *Schreiber*. *In re Tanczyn*, 347 F.2d 830 (CCPA 1965). As stated therein,

We never intended by the language used in *Stempel* to authorize the overcoming of references by affidavits showing that the applicant had invented, prior to the reference date, a part, some parts, or even a combination of parts, used to create an embodiment of his claimed invention, where the part or parts are not within the scope of the claims being sought, as the species of *Stempel* shown by the reference was within his generic claims.

Tanczyn, 347 F.2d at 833. The *Tanczyn* court further explained,

It does not appear to us logical that one should be permitted to dissect the invention, in this instance the claimed combination, into several parts and then say because he has invented one such part prior to a reference disclosing that part that he has also invented the entire combination prior to that reference, even though other references combined therewith to meet ‘the invention’ bear an earlier date.

Id. at 832. Patent Owner’s suggested approach to antedating Sharpe by showing prior conception of only those elements described by Sharpe is, therefore, not an acceptable method of showing prior invention.

For the above reasons, the evidence in the record at the present time does not show prior conception of the claimed invention.

Reasonable diligence “must be shown throughout the entire critical period, which begins just prior to the competing reference’s effective date[,] and ends on the date of the invention’s reduction to practice.” *Perfect Surgical Techniques, Inc. v. Olympus America, Inc.*, 841 F. 3d 1004, 1007 (Fed. Cir. 2016). The diligence need only be “reasonably continuous,” permitting periods of inactivity within the critical period. *Id.* at 1010–1011. However, the showing of diligence must be sufficient “to assure that, in light of the evidence as a whole, ‘the invention was not abandoned or unreasonably delayed.’” *Id.* at 1009 (quoting *Brown v. Barbacid*, 436 F.3d 1376, 1379 (Fed. Cir. 2006)). An inventor’s testimony regarding their reasonable diligence must be corroborated by evidence. *Id.* at 1007 (citing *Brown*, 436 F.3d at 1380).

Thus, with respect to diligence, the critical period here begins just prior to Sharpe’s filing date of September 26, 2000, and ends on the date of the invention’s reduction to practice. As discussed, there is insufficient evidence to show actual reduction to practice of the claimed invention. The date of constructive reduction to practice is the date of the earliest filing of an application in the chain of priority that sufficiently describes the claimed invention. Here, Petitioner points to the ’994 provisional application in the chain of priority to which the ’272 claims benefit as providing that date. Pet. Reply 5. The effective filing date of that application is November 15, 2000. Ex. 1001, code (60).

Patent Owner acknowledges that diligence must be shown between those dates of September 26, 2000 and November 15, 2000. Prelim. Resp. 19 (“Diligence must be shown from just prior to the competing reference’s effective date until the date of the invention’s reduction to practice. . . . The effective date of Sharpe is September 26, 2000.”) However, Patent Owner argues that the evidence shows diligence “between the conception in early 2000 of the invention, and the critical date of Sharpe.” *Id.* Patent Owner has not provided any explanation of diligence *from just prior to the critical date of Sharpe until the date of the invention’s reduction to practice.* See Pet. Reply 6.

Nor is such diligence over that period evident from the record. Patent Owner characterizes the provisional application as being completed as of August 15, 2000. Prelim. Resp. 21; PO Sur-reply 1, 6. Patent Owner states that the provisional application was filed on November 15, 2000. The showing of diligence relates only to that which is directly related to the reduction to practice of the invention, either in filing that application or through development towards actual reduction of that invention or a second invention. *Naber v. Cricchi*, 567 F.2d 382, 384 (CCPA 1977). Patent Owner does not address whether there was diligence in filing the patent application.³ The testimony of inventor Frigon addresses activities through September 28, 2000. Ex. 2005 ¶¶ 3, 4, 17, 18. The corroborating testimony of Mr. Malone only covers the period until “I had moved out of our apartment in August 2000.” Ex. 2016 ¶ 7. The corroborating testimony of Ms. Larson is similarly limited from “January 1999 . . . through September

³ Patent Owner has been authorized to file a correction to testimony concerning the filing of the provisional application. See Ex. 3001. No corrected testimony has yet been filed.

2000.” Ex. 2018 ¶ 2. Although Ms. Larson mentions discussions with Mr. Frigon concerning his progress with the technology “over the course of the year 2000 and beyond,” her corroboration of diligence is focused on “the early 2000 time frame,” with no particular examples of activity by Mr. Frigon after September 28, 2000. *Id.* ¶¶ 3–7; Ex. 2015, 1 (discussing adding information to a database and mentioning “www.sacko.com”).

Mr. Frigon’s evidence includes some record of computer-related purchases during the critical time period from September 28, 2000 through November 15, 2000. Ex. 2014, 2 (unpaginated).⁴ However, Mr. Frigon only relies upon purchases during August 2000 to support his “continued pursuit [of] the invention.” Ex. 2005 ¶ 16. Thus, the later purchases have not been shown to be related to diligence in developing the invention to practice.

Patent Owner further provides a statement that it has shown diligence between conception and the reduction to practice in August, 2000, and that “**both** happened before Sharpe’s critical date.” Sur-reply 6. There are two problems with this statement. First, if Mr. Frigon had both conceived and reduced to practice the claimed invention before Sharpe’s critical date, no diligence need be shown. Second, the asserted August, 2000 reduction to practice is stated to be “when the provisional application was finalized.” *Id.* Finalizing a provisional application does not, by itself, show an actual reduction to practice because it does not “prove that he constructed his claimed invention and that it would work for its intended purpose.” *Mazzari*, 323 F.3d at 1005. Nor does finalizing a provisional application

⁴ To minimize unnecessary disclosure of personal information, Patent Owner may wish to consider replacing this exhibit with a sealed exhibit and a redacted version for the public.

show a constructive reduction to practice, because that does not occur until the application is filed at the USPTO.

The record lacks corroborated evidence to show any activity related to reduction to practice of the claimed invention between September 28, 2000 and the constructive reduction to practice of November 15, 2000. Although *Perfect Surgical* provides examples in which intervals of inactivity may occur within the critical time period, *Perfect Surgical* does so to ensure that the diligence inquiry is not reduced to “scour[ing] the patent owner’s corroborating evidence in search of” such intervals. *Perfect Surgical*, 841 F.3d at 1009. Rather, the purpose of the diligence inquiry is to “assure that, in light of the evidence as a whole, ‘the invention was not abandoned or unreasonably delayed.’” *Id.* Here, there is no evidence, corroborated or uncorroborated, that progress on the conceived invention continued past September 28, 2000, except for the act of filing the provisional application on November 15, 2000. Unlike *Perfect Surgical*, the record does not exhibit an overall indication of progress on the invention, with some individual gaps that may be insignificant in view of the activity during the entirety of the critical period, or otherwise accounted for. *Perfect Surgical*, 841 F.3d at 1010–1011 (weighing evidence as to the inventor’s professional, non-inventive activities as acceptable excuses, and evidence of communication with their attorney to prepare the patent application, during the critical time period, and explaining that it would be “egregious” to determine that a long weekend in the midst of clear activity to indicate a lack of diligence). Thus, there is no evidence of record to determine that this time period was a reasonable delay in view of the entirety of actions during the entire critical period.

Consequently, the evidence in the record at the present time does not show reasonably continuous diligence to the invention's reduction of practice.

(d) *Summary*

For the reasons given above, we determine that Sharpe is available as prior art.

2. *Eintracht*

Eintracht is titled "Synchronizing/Updating Local Client Notes With Annotations Previously Made by Other Clients in a Notes Database." Ex. 1006, code (54). Eintracht relates to an Internet-based "system for collaborative document annotation based on the exchange of notes attached to web based documents." *Id.* at 1:9–11. Eintracht states that a common need at the time was "to be able to view the [web] document, i.e., images etc., on the client computer and be able to add one or more annotations to the document." *Id.* at 1:26–28. The documents and their associated annotations are stored in separated data structures, permitting their data to be managed independently. *Id.* at 2:11–15. Users, via a plug-in module in their web browser, may display documents and create annotations. *Id.* at 2:16–40. The annotations are transmitted to a server to be stored in asynchronous fashion, permitting multiple users to simultaneously annotate a document. *Id.* at 2:50–58.

3. *FotoFile*

FotoFile is titled "FotoFile: A Consumer Multimedia Organization and Retrieval System." Ex. 1011. FotoFile relates to a system for multimedia organization and retrieval, blending human and automatic annotation methods. *Id.* at 1. FotoFile describes automatic feature extraction for automating annotations that would otherwise require manual

entry. *Id.* at 4. FotoFile describes a face detection and recognition system that attempts to match the face to an identity. *Id.* That identity will be assigned as an annotation to all subsequently seen photos containing a matching face. *Id.*

4. *Analysis of Claim 1*

We begin our analysis of Petitioner’s obviousness contentions with Petitioner’s assertions as to claim 1.

a) 1[pre]: method implemented within a computer system including a plurality of computing devices connected via a communications network, the method associating users of the computer system with digital media accessible to the computer system,

Petitioner asserts that this limitation, to the extent limiting, is described by Sharpe’s “digital media items based on episodic memory of predefined associated groups of one or more people,” implemented “over the Internet.” Pet. 30–31 (citing Ex. 1005, Abstr., 4:21–33).

b) 1[a]: distinguishing between users of the computer system via one or more unique user identifiers stored in a computer-readable medium accessible to the computer system, the users of the computer system including a named user and an identifying user, the named user being different from the identifying user, the named user having naming information associated with a unique user identifier of the named user;

Petitioner asserts that this limitation is described by Sharpe’s use of a user name, recorded in a database, and password for users to identify

themselves as a member of a group. *Id.* at 33–34 (citing Ex. 1005, 5:4–6, 7:35–48). Petitioner points to the user name as a unique user identifier. *Id.* at 34 (citing Ex. 1003 ¶ 152). Petitioner further points to unique user identifiers as being taught through the process by which images are related with specific users in the database. *Id.* (citing Ex. 1003 ¶ 153). Petitioner points to the user archiving the media item as an “identifying user,” and the user identified in the image during archive is a “named user” that is “different from the identifying user,” because Sharpe describes that an individual can identify “digital media items related to *other users*.” *Id.* at 37–38 (citing Ex. 1005, 5:6–13; Ex. 1003 ¶¶ 166–169). Petitioner further points to Sharpe’s description of a GUI [Graphical User Interface] having a “drop down box . . . provided for selecting any of a number of people within the group,” wherein the box is illustrated as a list of first names of people. *Id.* at 38–39 (citing Ex. 1005, 6:67–7:1, 8:26–29, Fig. 4, Ex. 1003 ¶ 172).

Petitioner further asserts that the unique user identifier limitation is taught by the combination of Sharpe and Eintracht, through incorporation of Eintracht’s unique user IDs associated with a user name into the invention of Sharpe. *Id.* at 34 (citing Ex. 1006, 8, 8–13, 10:40–63). Petitioner asserts that a person having ordinary skill in the art would be motivated to make such a combination to benefit from the flexibility in accessing and changing user name data from the identifier at a single location. *Id.* at 36 (citing Ex. 1003 ¶ 57). Petitioner asserts that this provides an easier and more efficient way to change annotation on multiple images by changing one data field rather than editing each individual image. *Id.* at 26 (citing Ex. 1003 ¶ 133; Ex. 1006, 1:47–50).

Patent Owner argues that Petitioner lacks a proper articulated reasoning for motivation to combine Sharpe with Eintracht. Patent Owner

points to a statement in the Petition that a person of ordinary skill in the art “would have recognized that Eintracht’s asynchronous annotation capability and groupware features would have improved the collaborate archival system of Sharpe.” Prelim. Resp. 32 (citing Pet. 59). Patent Owner states that the Petition provides no further basis or reasoning for combining the two references, or why such improvement would have been recognized. *Id.* at 32–33.

We do not agree with Patent Owner’s argument because, as indicated above, Petitioner provides further analysis and reasoning at a different section of the Petition. Pet. 26. We determine that Petitioner’s discussion at that section is more than merely conclusionary, and sufficiently details the advantage in using a single data field to control the names in related annotations. *Id.* Consequently, we determine that Petitioner has sufficiently shown, for purposes of institution, adequate reason to combine the references.

Petitioner asserts that this combination would have a reasonable expectation of success because both are implemented over a network via a server, and over the Internet via the World Wide Web. *Id.* at 28–29 (citing Ex. 1005, 4:21–28, 5:50–63, Fig. 2; Ex. 1006, 1:7–12, 1:26–35, 2:16–27, Fig. 3; Ex. 1003 ¶ 135). Petitioner relies upon a statement from Dr. Bederson that a person of ordinary skill in the art would have recognized the systems as structurally similar, and that in view of the similarities, that person would expect to be able to combine the features of Sharpe and Eintracht. *Id.* (citing Ex. 1003 ¶ 137).

*c) 3[b]: in response to an input
from the identifying user indicating a*

*selection of an image, determining a
unique image identifier
corresponding to the image selected;*

Petitioner points to Sharpe’s description of the user identifying a group to which the user belongs, permitting one or more digital media items to be identified to be archived by the user’s selection of an item to be imported onto the work space. *Id.* at 40 (citing Ex. 1005, 1:42–47, 2:39–41, 7:42–44; Ex. 1003 ¶¶ 176–178). Petitioner highlights Sharpe’s use of an identifier responsible for associating each item to be stored, and that “digital media items may be stored separately with unique identifiers such as a file name or index.” *Id.* at 40–41 (citing Ex. 1005, 3:64–4:6, 5:24–40).

*d) 1[c]: receiving, from the
identifying user, an input indicating
a selection of the named user from a
list of other users of the computer
system, the list of other users
including naming information
previously provided by other users,
the list of other users including one
or more users in a contact list
associated with the identifying user,
the identifying user’s contact list
including the named user*

Petitioner points to Sharpe’s description of a graphical user interface [“GUI”] from which a user selects a name from a list of names. *Id.* at 42 (citing Ex. 1005, Fig. 4, 8:15–25). The selection associates that name with a media item, which is then archived with the selected people. *Id.* (citing Ex. 1005, 6:58–7:24, 8:15–25). The list of people is taken from a database of groups of people, and the names have been previously provided by the users when the users database is populated. *Id.* at 42–44 (citing Ex. 1005, Fig. 4, 5:4–6, 7:35–38, 8:26–29; Ex. 1003 ¶ 185). Petitioner characterizes Sharpe’s

list of people in its drop-down box both as a list of other users and a contact list for group members. *Id.* at 45.

Petitioner further asserts that the use of a contact list for Sharpe's archiving user would have been a simple design choice as it was a known feature. *Id.* at 46 (citing Ex. 1007, 1:20–43; Ex. 1028, 14:7–9; Ex. 1013 ¶ 31; Ex. 1012, 8:53–61; Ex. 1003 ¶ 190). Petitioner further asserts that such a combination would have improved group collaboration by allowing users to leverage their contacts, and would have facilitated Sharpe's aim of increased participation in the events being archived. *Id.* at 45–46 (citing Ex. 1003 ¶ 190).

e) 1[d]: in response to receiving from the identifying user the input indicating the selection of the named user from the list of other users, determining a unique user identifier of the named user;

Petitioner points to Sharpe's description of a user selecting a name from the drop-down box, the name being a personal name uniquely identifying the named user. *Id.* at 46 (citing Ex. 1003 ¶ 192).

f) 3[e]: receiving, from the identifying user, one or more inputs indicating a set of coordinates corresponding to a location of the named user within the image;

Petitioner points to Sharpe's above described labeling of images with the names of the people therein. *Id.* at 47–49. Petitioner also points to Eintracht's description of its user identifying coordinates corresponding to a location within the image. *Id.* at 49 (citing Ex. 1006, 7:55–64, 15:10–16). Petitioner asserts that a person having ordinary skill in the art would have been motivated to apply Eintracht's coordinate-specific identification to

Sharpe’s identification of users in an image, to “improve the user experience and the ability to automatically identify faces within the image,” as well as improve the user’s ability to recall certain individuals. *Id.* at 50 (citing Ex. 1003 ¶ 201).

g) 3[f]: applying artificial intelligence algorithms to image data of other images accessible to said computer system to locate images matching characteristics of a subset of image data bound by the set of coordinates corresponding to the location of the named user within the image, wherein the set of coordinates corresponding to the location of the named user within the image is associated with the unique user identifier of the named user and the unique image identifier.

In addition to the previously discussed assertions, Petitioner points to FotoFile’s face detection and recognition system as teaching the claimed artificial intelligence algorithm. *Id.* at 53 (citing Ex. 1011, 2, 4–5). FotoFile’s algorithm, “[w]hen given photos that contain faces of new people . . . attempts to match the identity of the face,” and such identity “will be assigned as an annotation to ***all subsequently seen photos that contain faces that match the original.***” *Id.* (citing Ex. 1011, 4–5). Petitioner highlights that during prosecution of the ’275 patent, the Examiner considered FotoFile and characterized it as teaching an “artificial intelligence algorithm.” *Id.* at 54 (citing Ex. 1002, 283-84).

Petitioner further points to Eintracht’s description of a “shape field 226” that, combined with a set of coordinates, are used to identify the

location of areas in the image. *Id.* at 56 (citing Ex. 1006, 17:42–53; Ex. 1003 ¶ 218).

Petitioner points to the automatic nature of FotoFile’s detection and annotation as motivating the combination with Sharpe and Eintracht. *Id.* at 54–55. Petitioner points to the known nature of the individual components as providing a reasonable expectation of success for such a modification. *Id.* at 55 (citing Ex. 1003 ¶ 215).

h) Determination

In view of the foregoing, we determine that Petitioner has sufficiently shown, for purposes of institution, that each element of claim 1 has been taught or suggested by the combined references. Further, that Petitioner has sufficiently shown, for purposes of institution, that a person having ordinary skill in the art would have reason to combine the references as suggested by Petitioner, and would have a reasonable expectation of success in doing so.

III. CONCLUSION

For the reasons discussed above, we conclude Petitioner has shown a reasonable likelihood of prevailing with respect to claim 1 of the ’275 patent. We determine that the record supports institution. Accordingly, we institute an *inter partes* review of all challenged claims under both grounds set forth in the Petition.

Our determination at this stage of the proceeding is based on the evidentiary record currently before us. This decision to institute trial is not a final decision as to patentability of any claim for which *inter partes* review has been instituted. Our final decision will be based on the full record developed during trial.

IV. ORDER

For the foregoing reasons, it is:

ORDERED that pursuant to 35 U.S.C. § 314(a), an *inter partes* review is hereby instituted for the following asserted grounds:

Claims Challenged	35 U.S.C. §	Reference(s)/Basis
1–12	103(a)	Sharpe, Eintracht, FotoFile
1–12	103(a)	Sharpe, Eintracht, FotoFile, Carey

FURTHER ORDERED that pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4, notice is hereby given of the institution of a trial; the trial will commence on the entry date of this Decision.

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