

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SALESFORCE.COM, INC.,
Petitioner,

v.

WSOU INVESTMENTS, LLC d/b/a
BRAZOS LICENSING AND DEVELOPMENT,
Patent Owner.

IPR2022-00428
Patent 8,280,928 B2

Before BRIAN J. McNAMARA, ROBERT J. WEINSCHENK, and
JOHN A. HUDALLA, *Administrative Patent Judges*.

HUDALLA, *Administrative Patent Judge*.

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

Salesforce.com, Inc. (“Petitioner”) filed a Petition (Paper 1, “Pet.”) requesting an *inter partes* review of claims 1–8 and 13–19 (“the challenged claims”) of U.S. Patent No. 8,280,928 B2 (Ex. 1001, “the ’928 patent”).

Petitioner filed declarations of Dr. Douglas C. Schmidt (Ex. 1003) and Dr. Sylvia Hall-Ellis (Ex. 1023) with its Petition. WSOU Investments, LLC d/b/a Brazos Licensing and Development (“Patent Owner”) filed a Preliminary Response (Paper 6, “Prelim. Resp.”). With our authorization (*see* Paper 7), Petitioner also filed a Reply (Paper 8, “Pet. Reply”) and Patent Owner filed a Sur-reply (Paper 9, “PO Sur-reply”) addressing Patent Owner’s arguments in the Preliminary Response regarding whether the Erdogan reference¹ qualifies as prior art.

We have authority to determine whether to institute an *inter partes* review. *See* 35 U.S.C. § 314; 37 C.F.R. § 42.4(a). Under 35 U.S.C. § 314(a), we may not authorize an *inter partes* review unless the information in the petition and the 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 that follow, we do not institute an *inter partes* review.

I. BACKGROUND

A. *Real Parties-in-Interest*

Petitioner identifies Salesforce.com, Inc., as the real party-in-interest. Pet. 2. Patent Owner identifies WSOU Investments, LLC d/b/a Brazos Licensing and Development as the real party-in-interest. Paper 3, 1.

B. *Related Proceedings*

The parties identify the following proceeding related to the ’928 patent (Pet. 2; Paper 3, 2):

¹ *See infra* § I.E.

WSOU Investments LLC v. Salesforce.com, Inc., No. 6-20-cv-01165²
(W.D. Tex. filed Dec. 18, 2020).

We additionally note that Petitioner has challenged other patents owned by Patent Owner in IPR2022-00154 and IPR2022-00357.

C. The '928 patent

The '928 patent is directed to “a multi-level enmeshed directory structure.” Ex. 1001, 1:6–7. The '928 patent issued from an application that was filed on March 31, 2009. *Id.* at code (22). Petitioner applies this date for qualifying the asserted references as prior art.³ *See* Pet. 6.

D. Illustrative Claim

Of the challenged claims, claims 1, 6, 13, and 17 are independent. Claims 2–5 depend from claim 1; claims 7 and 8 depend from claim 6; claims 14–16 depend from claim 13; and claims 18 and 19 depend from claim 17. Claim 1 is illustrative of the challenged claims and recites:

1. A method for generating a multi-level hierarchical directory structure and establishing relationships between descriptors, the method comprising:
 - selecting an initial data object;
 - creating one or more descriptors associated with the data object wherein each of said descriptors are further associated

² Petitioner’s listing of this case number appears to include a typographical error.

³ We note that Petitioner and its declarants sometimes reference March 31, 2008, which is relevant to qualifying prior art under 35 U.S.C. § 102(b). Nevertheless, we key our analysis to the March 31, 2009, date. As discussed below, Petitioner does not establish a reasonable likelihood that Erdogan qualifies as a prior art printed publication even as to this later date.

with one or more corresponding descriptors thereby forming a multi-level relational tree;

determining the relationship between the one or more descriptors;

creating a hierarchical structure linking the different levels of descriptors;

updating a corresponding database; and

identifying a single initial descriptor that links a plurality of descriptors and two or more predecessor descriptors linking another single descriptor to thereby establish relationships between different descriptors relative to themselves and to the single initial descriptor.

Ex. 1001, 10:47–64.

E. Prior Art

Petitioner relies on the following prior art:

Erdogan, K., *A Model to Represent Directed Acyclic Graphs (DAG) on SQL Databases*, Code Project (Jan. 14, 2008), <https://www.codeproject.com/script/Articles/ArticleVersion.aspx?aid=22824&av=37722> (Ex. 1004, “Erdogan”);

U.S. Patent No. 9,104,779 B2, filed June 21, 2011, issued Aug. 11, 2015 (Ex. 1005, “Hunt”);

U.S. Patent No. 5,644,686, filed Apr. 29, 1994, issued July 1, 1997 (Ex. 1006, “Hekmatpour”); and

U.S. Patent No. 8,195,646 B2, filed Apr. 22, 2005, issued June 5, 2012 (Ex. 1007, “Evans”).

F. The Asserted Grounds

Petitioner challenges claims 1–8 and 13–19 of the ’928 patent on the following grounds (Pet. 5):

Claims Challenged	35 U.S.C. §	References
1–4	103(a) ⁴	Erdogan, Evans
5	103(a)	Erdogan, Evans, Hekmatpour
6–8, 13–19	103(a)	Erdogan, Evans, Hekmatpour, Hunt

II. ANALYSIS

We now consider Petitioner’s asserted grounds and Patent Owner’s arguments to determine whether Petitioner has met the “reasonable likelihood” standard for institution under 35 U.S.C. § 314(a).

A. *Legal Standards*

A 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. *See KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007).

The question of obviousness is resolved on the basis of underlying factual determinations, including (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of skill in the art; and (4) where in evidence, so-called secondary

⁴ The Leahy-Smith America Invents Act (“AIA”), Pub. L. No. 112-29, 125 Stat. 284, 287–88 (2011), amended 35 U.S.C. §§ 102 and 103. Because the ’928 patent was filed before March 16, 2013 (the effective date of the relevant amendments), the pre-AIA versions of §§ 102 and 103 apply to all asserted grounds.

considerations.⁵ *See Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966). We also recognize that prior art references must be “considered together with the knowledge of one of ordinary skill in the pertinent art.” *In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994) (citing *In re Samour*, 571 F.2d 559, 562 (CCPA 1978)).

B. Level of Ordinary Skill in the Art

Citing testimony from Dr. Schmidt, Petitioner contends a person of ordinary skill in the art (“POSITA”) would have had “a Bachelor of Science degree in electrical engineering or computer science or related field plus at least two years of professional experience in the field of relational databases and/or user interfaces thereto.” Pet. 7 (citing Ex. 1003 ¶ 36). Patent Owner does not offer a different definition, and Patent Owner contends that Petitioner has not met the “reasonable likelihood” standard for institution even if we were to apply Petitioner’s definition. Prelim. Resp. 1.

For purposes of this Decision, we adopt Petitioner’s definition of the level of ordinary skill in the art. On the present record, we are satisfied that this definition comports with the level of skill necessary to understand and implement the teachings of the ’928 patent and the asserted prior art.

C. Claim Interpretation

In an *inter partes* review, we construe each claim “in accordance with the ordinary and customary meaning of such claim as understood by one of ordinary skill in the art and the prosecution history pertaining to the patent.”

⁵ The present record does not include any evidence of secondary considerations of nonobviousness.

37 C.F.R. § 42.100(b). Accordingly, our claim construction standard is the same as that of a district court. *See id.* Under the standard applied by district courts, claim terms are generally given their plain and ordinary meaning as would have been understood by a person of ordinary skill in the art at the time of the invention and in the context of the entire patent disclosure. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005) (en banc). “There are only two exceptions to this general rule: 1) when a patentee sets out a definition and acts as his own lexicographer, or 2) when the patentee disavows the full scope of a claim term either in the specification or during prosecution.” *Thorner v. Sony Comput. Entm’t Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012).

We determine that no aspects of the challenged claims require explicit construction. *See, e.g., Realtime Data, LLC v. Iancu*, 912 F.3d 1368, 1375 (Fed. Cir. 2019) (“The Board is required to construe ‘only those 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))).

D. Obviousness Ground Based on Erdogan and Evans

Petitioner contends the subject matter of claims 1–4 would have been obvious over the combination of Erdogan and Evans. Pet. 29–56; Pet. Reply 1–5. Patent Owner disputes Petitioner’s contentions. Prelim. Resp. 2–8, 17–30; PO Sur-reply 1–5. Our disposition of this ground turns on the prior art status of Erdogan, which we now address.

1. The Parties' Contentions Regarding the Prior Art Status of Erdogan

Erdogan is an article “[a]ddressing the general problem of representing directed acyclic graphs (DAGs) in SQL databases.” Ex. 1004, 1. Petitioner contends that each of its asserted references, including Erdogan, “qualifies as prior art under at least one of 35 U.S.C. 102(a), (b), and/or (e).” Pet. 6. Petitioner’s entire argument for qualifying Erdogan is reproduced below:

Erdogan, Ex. 1004, was a printed publication that was publicly available at least as early as January 14, 2008, such that a POSITA, exercising reasonable diligence, could have located it. Moreover, the attached Ex. 1004 is a true and authentic copy as it existed on such date. Ex. 1023.

Pet. 13 n.3.

The citation in this passage to Exhibit 1023 refers to a declaration of Dr. Hall-Ellis, who is a professor with experience in the field of library science. Ex. 1023 ¶¶ 4–6. She testifies that she downloaded the copy of Erdogan at Exhibit 1004 from a website associated with an organization known as the Code Project. *Id.* ¶ 24–25 & n.1. Based on text appearing on the downloaded copy itself, she testifies that “[t]he Code Project originally provided the Erdogan article on its website on January 10, 2008, and the author updated it on January 14, 2008.” *Id.* ¶ 26 & n.2; *see also id.* ¶ 28 (similar testimony). She also testifies that the website “was on the Internet as least as of January 14, 2008,” based on “information provided by web crawler protocols that capture snapshots of websites on the Internet.” *Id.* ¶ 26. Dr. Hall-Ellis cites no evidence regarding this purported web capture information, however.

Dr. Hall-Ellis states that she “understand[s]” that “prior to March 31, 2008, the Code Project would have been known to persons at least of ordinary skill in the art as an organization that brought together software developers who formed a community of practice for share knowledge, codes, and tutorials.” *Id.* ¶ 25. Furthermore, she states that she “understand[s]” that “persons of ordinary skill in the art would have reasonably considered this organization and its website – <https://www.codeproject.com/> – as reliable and useful sources of information for research, study, development, or design of software.” *Id.* Dr. Hall-Ellis also addresses the public accessibility of Erdogan in the following paragraph:

Given that the Code Project website was accessible to the public prior to March 31, 2008, I understand that persons interested and ordinarily skilled in the subject matter or art exercising reasonable diligence could have located the Erdogan article from the website using the common search terms discussed above and/or reasonable diligence. Indeed, upon accessing the Code Project website, such an interested researcher would have found the Erdogan article by simply clicking on the “articles” link followed by the topic and applying reasonable diligence.

Id. ¶ 27. Dr. Hall-Ellis does not state the basis of her understanding regarding the Code Project. She likewise does not state the basis for her testimony about how an ordinarily skilled artisan would have been aware of and would have searched the Code Project website.

Patent Owner argues that “Dr. Hall-Ellis did not claim to have any *personal knowledge* of when the reference identified as Erdogan (Ex. 1004) was first publicly accessible to persons of ordinary skill in the art via the Code Project website.” Prelim. Resp. 6; *see also id.* at 5 (similar argument).

Patent Owner also notes that she did not “claim to have ever worked for Code Project or [to] have personal knowledge of its website practices separate and apart from what is allegedly shown on the website.” *Id.* at 6. Petitioner also argues that “[s]he did not claim to have downloaded the document in 2008, did not claim to have ever been employed as a document custodian of Code Project, and did not claim to have *personal knowledge* of the Code Project website and its archiving practices.” *Id.* at 8. Thus, according to Patent Owner, “Petitioner’s naked assertion that Erdogan was merely technically *available* (via the Internet) as early as January 14, 2008, cannot show that Erdogan was *publicly accessible* as of the critical date.” *Id.* at 3.

In its Reply, Petitioner argues that “Dr. Hall-Ellis expresses her familiarity with the Code Project and her ‘understanding’ (i.e., her personal knowledge) that the Code Project was recognized by POSITAs “as reliable and useful sources of information for research, study, development, or design of software.” Pet. Reply 2 (citing Ex. 1023 ¶ 25). Petitioner also argues that she “expresses her ‘understanding’ that a POSITA would have found Erdogan using common search terms and exercising reasonable diligence.” *Id.* (citing Ex. 1023 ¶ 27). Thus, according to Petitioner, Patent Owner “has not rebutted Dr. Hall-Ellis’s opinion that a POSITA would have found Erdogan using common search terms.” *Id.* at 4 (citing Ex. 1023 ¶ 27).

In its Sur-reply, Patent Owner argues that Dr. Hall-Ellis’s alleged opinion about a POSITA finding Erdogan using common search terms is “conclusory,” is “factually unsupported,” and “lacks any rational underpinning.” PO Sur-reply 1. According to Patent Owner,

Dr. Hall-Ellis failed to articulate 1) which so-called “common search terms” allegedly would have located Erdogan as of the

critical date, 2) the search engine that would have allegedly located Erdogan using those undisclosed terms, and 3) how Erdogan—in *particular*—would have been located from among all the webpages retrieved by such undisclosed terms.

Id. Patent Owner again characterizes Petitioner’s argument as a “naked assertion that Erdogan was technically available via the Internet,” which Patent Owner argues is insufficient to establish publicly accessibility as of the critical date. *Id.* at 1–2.

2. *Legal Standards Regarding Printed Publications*

“[A]t the institution stage, the petition must identify, with particularity, evidence sufficient to establish a reasonable likelihood that the reference was publicly accessible before the critical date of the challenged patent and therefore that there is a reasonable likelihood that it qualifies as a printed publication.” *Hulu, LLC v. Sound View Innovations, LLC*, IPR2018-01039, Paper 29 at 13 (PTAB Dec. 20, 2019) (precedential). The determination of whether a document is a “printed publication” under 35 U.S.C. § 102 “involves a case-by-case inquiry into the facts and circumstances surrounding the reference’s disclosure to members of the public.” *Medtronic, Inc. v. Barry*, 891 F.3d 1368, 1380 (Fed. Cir. 2018) (citing *In re Klopfenstein*, 380 F.3d 1345, 1350 (Fed. Cir. 2004)). “A reference is considered publicly accessible if it was disseminated or otherwise made available to the extent that persons interested and ordinarily skilled in the subject matter or art, exercising reasonable diligence, can locate it.” *Acceleration Bay, LLC v. Activision Blizzard Inc.*, 908 F.3d 765, 772 (Fed. Cir. 2018) (internal quotation omitted). Evidence of cataloging and indexing can sometimes play a significant role in determining whether a

library reference qualifies as a printed publication. *See In re Lister*, 583 F.3d 1307, 1312 (Fed. Cir. 2009). In assessing public accessibility, our reviewing court considers whether a reference is “*meaningfully* indexed such that an interested artisan exercising reasonable diligence would have found it.” *Acceleration Bay*, 908 F.3d at 774 (citing *In re Cronyn*, 890 F.2d 1158, 1161 (Fed. Cir. 1989)).

3. *Analysis*

We agree with Patent Owner that Petitioner has failed to establish a reasonable likelihood that Erdogan was publicly accessible before the critical date of the '928 patent (March 31, 2009). Although Petitioner contends that “a POSITA would have found Erdogan using common search terms” based on paragraph 27 of the Hall-Ellis declaration (Pet. Reply 4), that paragraph does not substantiate Petitioner’s contention. In particular, Dr. Hall-Ellis merely “understand[s]” that “persons interested and ordinarily skilled in the subject matter or art exercising reasonable diligence could have located the Erdogan article from the website using the common search terms discussed above and/or reasonable diligence.” Ex. 1023 ¶ 27. But she does not explain from where she derived that understanding, and she does not identify any evidence to support her understanding as to how the Code Project website would have been searched before the critical date. *See id.* For example, Dr. Hall-Ellis does not identify any evidence about the specific search capabilities, if any, of the Code Project website in March 2009. *See id.*; *Acceleration Bay*, 908 F.3d at 774 (noting that “keyword searching of titles” is a “key feature” that can support a finding that a reference is meaningfully indexed within a database).

Dr. Hall-Ellis also states that, “upon accessing the Code Project website, . . . an interested researcher would have found the Erdogan article by simply clicking on the ‘articles’ link followed by the topic and applying reasonable diligence.” Ex. 1023 ¶ 27. This testimony, however, appears to be based on the “articles” link shown on the present-day printout of Erdogan at Exhibit 1004;⁶ that is not a proper basis for establishing the public accessibility of Erdogan before March 2009. Moreover, Petitioner puts forth no evidence of how many topics were linked at that time, or of how many articles would have been found for each topic such that an ordinarily skilled artisan perusing those articles and exercising reasonable diligence would have located Erdogan. And, as discussed above, the preliminary record is devoid of any evidence that a query of the Code Project website in March 2009, using any combination of topic search words, would have led to Erdogan appearing in the search results. *See Blue Calypso, LLC v. Groupon, Inc.*, 815 F.3d 1331, 1350 (Fed. Cir. 2016) (finding insufficient evidence of public accessibility for an asserted Internet reference where the patent challenger had not put forth evidence demonstrating that a search would have led to the reference).

Our assessment of Petitioner’s and Dr. Hall-Ellis’s contentions regarding public accessibility at this stage would not change even if we were to credit Dr. Hall-Ellis’s testimony that Erdogan was available on the Code

⁶ Dr. Hall-Ellis testifies that she downloaded the copy of Erdogan at Exhibit 1004 from the Internet (Ex. 1023 ¶ 24), and she appears to have done so around the time the Petition was filed. In particular, each page of Erdogan includes a “10/4/21” date in a header. *See* Ex. 1004. Petitioner also appears to acknowledge that the copy of Erdogan is dated October 4, 2021. Pet. Reply 3 n.2.

Project website as of January 2008. *See* Ex. 1023 ¶ 26. Based on this scenario, Petitioner would have demonstrated technical accessibility, which means that “someone could theoretically find [Erdogan] on the Internet.” *Samsung Elecs. Co. v. Infobridge Pte. Ltd.*, 929 F.3d 1363, 1369 (Fed. Cir. 2019). Yet “public accessibility requires more than technical accessibility.” *Id.* (quoting *Acceleration Bay*, 908 F.3d at 773). As noted, Petitioner fails to identify evidence showing that an ordinarily skilled artisan exercising reasonable diligence before March 2009 would have located Erdogan from the Code Project website using “common search terms.” Thus, even in this scenario, Petitioner still would fail to establish “*meaningful*[] index[ing] such that an interested artisan exercising reasonable diligence would have found [Erdogan].” *Acceleration Bay*, 908 F.3d at 774.

Finally, we address Petitioner’s argument that Patent Owner “has not rebutted Dr. Hall-Ellis’s opinion that a POSITA would have found Erdogan using common search terms.” Pet. Reply 4 (citing Ex. 1023 ¶ 27). As discussed above, Petitioner has failed to “*identify, with particularity, evidence sufficient* to establish a reasonable likelihood that the reference was publicly accessible before the critical date of the challenged patent and therefore that there is a reasonable likelihood that it qualifies as a printed publication.” *Hulu*, Paper 29 at 13 (emphasis added). To the extent Petitioner contends that Dr. Hall-Ellis has offered an “opinion” about public accessibility, we find it to be insufficiently supported by record evidence to meet the “reasonable likelihood” standard for institution. Patent Owner cannot be expected to rebut Dr. Hall-Ellis’s “opinion” when Petitioner has not identified with particularity the facts and evidence supporting that alleged opinion.

4. *Conclusion Regarding Claims 1–4*

For the reasons discussed above, and based on the present record, Petitioner has not identified, with particularity, evidence sufficient to establish a reasonable likelihood that Erdogan was publicly accessible before March 31, 2009. Therefore, Petitioner has not established a reasonable likelihood that Erdogan qualifies as a prior art printed publication under 35 U.S.C. § 102. Accordingly, Petitioner has not established a reasonable likelihood that it would prevail in showing that the subject matter of claims 1–4 would have been obvious over the combination of Erdogan and Evans.

E. *Obviousness Ground Based on Erdogan, Evans, and Hekmatpour*

Petitioner contends the subject matter of claim 5 would have been obvious over the combination of Erdogan, Evans, and Hekmatpour. Pet. 56–60; Pet. Reply 1–5. Patent Owner disputes Petitioner’s contentions. Prelim. Resp. 2–8, 17–30; PO Sur-reply 1–5. Petitioner’s analysis for this ground incorporates the same deficiency discussed above with respect to the Erdogan–Evans ground, namely, that Petitioner has not established a reasonable likelihood that Erdogan qualifies as a prior art printed publication under 35 U.S.C. § 102. Thus, based on the present record, Petitioner has not established a reasonable likelihood that it would prevail in showing that the subject matter of claim 5 would have been obvious over the combination of Erdogan, Evans, and Hekmatpour.

F. Obviousness Ground Based on Erdogan, Evans, Hekmatpour, and Hunt

Petitioner contends the subject matter of claims 6–8 and 13–19 would have been obvious over the combination of Erdogan, Evans, Hekmatpour, and Hunt. Pet. 60–71; Pet. Reply 1–5. Patent Owner disputes Petitioner’s contentions. Prelim. Resp. 2–8, 17–32; PO Sur-reply 1–5. Petitioner’s analysis for this ground incorporates the same deficiency discussed above with respect to the Erdogan–Evans ground, namely, that Petitioner has not established a reasonable likelihood that Erdogan qualifies as a prior art printed publication under 35 U.S.C. § 102. Thus, based on the present record, Petitioner has not established a reasonable likelihood that it would prevail in showing that the subject matter of claims 6–8 and 13–19 would have been obvious over the combination of Erdogan, Evans, Hekmatpour, and Hunt.

III. CONCLUSION

For the reasons discussed above, we determine that Petitioner has not demonstrated a reasonable likelihood that it would prevail with respect to at least one of the claims challenged in the Petition. Therefore, we do not institute an *inter partes* review on the asserted grounds as to any of the challenged claims.

IV. ORDER

Accordingly, it is

ORDERED that the Petition is denied as to all challenged claims, and no *inter partes* review is instituted.

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