Trials@uspto.gov
571-272-7822

Paper 11
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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

EBATES PERFORMANCE MARKETING, INC. D/B/A RAKUTEN REWARDS,
Petitioner,

v.

INTERNATIONAL BUSINESS MACHINES CORP.,
Patent Owner.

IPR2022-00439
Patent 6,785,676 B2

Before KEN B. BARRETT, DAVID C. MCKONE, and ARTHUR M. PESLAK, *Administrative Patent Judges*.

BARRETT, *Administrative Patent Judge*.

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

I. INTRODUCTION

A. Background and Summary

Ebates Performance Marketing, Inc. d/b/a Rakuten Rewards ("Petitioner")[1] filed a Petition requesting *inter partes* review of U.S. Patent No. 6,785,676 B2 ("the '676 patent," Ex. 1001). Paper 3 ("Pet."). The Petition challenges the patentability of claims 1–13 of the '676 patent. Petitioner also filed an Explanation of Parallel Petitions. Paper 1. International Business Machines Corp. ("Patent Owner")[2] filed a Preliminary Response to the Petition. Paper 8 ("Prelim. Resp."). Petitioner filed a Reply (Paper 9, "Pet. Reply") and Patent Owner filed a Sur-reply (Paper 10, "PO Sur-reply").

An *inter partes* review may not be instituted "unless . . . the information presented in the petition . . . 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." 35 U.S.C. § 314(a) (2018). Having considered the arguments and evidence presented by Petitioner and Patent Owner, we determine that Petitioner has not demonstrated a reasonable likelihood of prevailing on at least one of the challenged claims of the '676 patent. Accordingly, we do not institute an *inter partes* review of the challenged claims.

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[1] Petitioner identifies Ebates Performance Marketing, Inc. d/b/a Rakuten Rewards, and Rakuten Group, Inc., as real parties-in-interest. Pet. 1.
[2] Patent Owner identifies International Business Machines Corp. as the real party-in-interest. Paper 4, 1.

B. Related Proceedings

Both parties identify, as matters involving or related to the '676 patent, *International Business Machines Corp. v. Rakuten, Inc., Rakuten USA Inc., Rakuten Commerce, LLC and Ebates Inc. d/b/a Rakuten*, No. 1:21-cv-00461-LPS (D. Del.), and *International Business Machines Corp. v. Zillow Group Inc. and Zillow, Inc.*, No. 2:20-cv-01130-TSZ (W.D. Wash.), and Patent Trial and Appeal Board case IPR2022-00438. Pet. 1–2; Paper 4, 1. Petitioner states that, in the District Court for the Western District of Washington, "[Patent Owner] IBM's patent has been found invalid on §101 grounds," and that Patent Owner has appealed the ruling. Paper 9, 1. Patent Owner indicates that the Western District of Washington litigation has been stayed. Paper 4, 1.

C. The '676 Patent

The '676 patent pertains to "the field of customer self service systems for resource search and selection" and, more specifically, to "annotating [search] response sets via an adaptive algorithm, wherein the annotations supplied are used to drive any visualization system that presents resource response results." Ex. 1001, 1:8–13. The Specification explains that "[c]urrently there exist many systems designed to perform search and retrieval functions . . . [and t]hese systems may be classified variously as knowledge management systems, information portals, search engines, data miners, etc." *Id.* at 1:16–19. According to the Specification, there existed for current systems certain challenges related to contextual issues. *Id.* at 1:19–36.

The method of the '676 patent involves "applying an ordering and annotation function for mapping the user context vector with the resource

response set [received in response to a query] to generate an annotated response set" and presenting the set to the user in accordance with the annotations. *Id.* at 3:5–18. The Specification states that the use of a context vector to map contexts to resources "increases the relevance of search results for a given user in their current context without requiring the user to explicitly train the system." *Id.* at 19:4–10.

> [A]nnotations may include ordering, which resources to bold, which would be placed on the primary screen of query results seen by the user and which would be placed on a secondary screen requiring an additional step by the user such as clicking on a button "give me additional resources", which resources to gray out, etc.

Id. at 8:16–22.

According to the '676 patent, "[t]he result of this invention is the ability to drive any visualization system for presenting resource response results in the most beneficial and meaningful way to the user via an interface when performing search and resource selection." *Id.* at 3:27–31.

D. Illustrative Claim

Of the challenged claims of the '676 patent, claim 1 is an independent claim. The remaining challenged claims depend directly or indirectly from independent claim 1. Claim 1, reproduced below, is illustrative.

> 1. A resource results annotator for a customer self service system that performs resource search and selection comprising:
>
> mechanism for receiving a resource response set of results obtained in response to a current user query;
>
> mechanism for receiving a user context vector associated with said current user query, said user context vector comprising data associating an interaction state with said user and including context that is a function of the user; and,
>
> an ordering and annotation function for mapping the user context vector with the resource response set to generate an

> annotated response set having one or more annotations for controlling the presentation of the resources to the user, wherein the ordering and annotation function is executed interactively at the time of each user query.

Ex. 1001, 20:5–20.

E. Evidence

Petitioner relies on the following references:

Reference	**Exhibit No.**
US 2002/0065802 A1; filed May 30, 2001; published May 30, 2002 ("Uchiyama")	1005
Ahmad M. A. Wasfi, *Collecting User Access Patterns for Building User Profiles and Collaborative Filtering*, IUI '99: PROCEEDINGS OF THE 4TH INTERNATIONAL CONFERENCE ON INTELLIGENT USER INTERFACES, December 1998 ("Wasfi")	1006
US 6,463,428 B1; filed Mar. 29, 2000; issued Oct. 8, 2002 ("Lee")	1007
US 6,564,208 B1; filed Feb. 24, 2000; issued May 13, 2003 ("Littlefield")	1008
Justin Boyan et al., *A Machine Learning Architecture for Optimizing Web Search Engines*, 1996 AAAI WORKSHOP ON INTERNET-BASED INFORMATION SYSTEMS ("Boyan")	1009

Petitioner also relies on the declaration of Dr. Mark E. Crovella (Ex. 1003) in support of its arguments. The parties also rely on other exhibits as discussed below.

F. Asserted Grounds of Unpatentability

Petitioner asserts that the challenged claims are unpatentable on the following grounds[3]:

[3] The '676 patent was filed before the effective date of the Leahy Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011) ("AIA"), and we apply the pre-AIA version of 35 U.S.C. §§ 103 and 112.

Claim(s) Challenged	35 U.S.C. §	Reference(s)/Basis
1–2	103(a)	Uchiyama, Wasfi
3	103(a)	Uchiyama, Wasfi, Lee
4	103(a)	Uchiyama, Wasfi, Littlefield
5–13	103(a)	Uchiyama, Wasfi, Boyan

II. ANALYSIS

A. Discretion Under 35 U.S.C. §§ 314(a) and 325(d)

Petitioner, in addition to the subject Petition, concurrently filed another petition challenging claims of the '676 patent. IPR2022-00438, Paper 3 (challenging claims 14–28). Patent Owner argues that more than one petition is unnecessary and that we should exercise discretion to deny institution of *inter partes* review of one of the petitions under 35 U.S.C. § 314(a). *See* Prelim. Resp. 1–2, 62–68.

Patent Owner also urges us to exercise discretion under 35 U.S.C. § 325(d) to deny institution of an *inter partes* review. *See id.* at 3, 38–62. Patent Owner argues that

> the Petition relies on references that are substantially the same as the art previously considered by the Office. Specifically the Examiner was aware of, and considered literature related to using user profiles (Ground 1), bolding relevant resources (Ground 2), using a button to see more resources (Ground 3), and optimizing web search engines (Ground 4).

Id. at 39.

Because we consider the merits of Petitioner's challenges in this case, and decline to institute a review for the reasons set out below, we need not determine whether it would be appropriate to discretionarily deny institution of one of the petitions under § 314(a) or to discretionarily deny institution of the subject Petition under § 325(d).

B. Principles of Law

Petitioner bears the burden of persuasion to prove unpatentability of the claims challenged in the Petition, and that burden never shifts to Patent Owner. *Dynamic Drinkware, LLC v. Nat'l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015).

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 skill in the art; and (4) any objective evidence of obviousness or non-obviousness.[4] *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

C. The Level of Ordinary Skill in the Art

In determining the level of ordinary skill in the art, various factors may be considered, including the "type of problems encountered in the art; prior art solutions to those problems; rapidity with which innovations are made; sophistication of the technology; and educational level of active workers in the field." *In re GPAC Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995) (internal quotation marks and citation omitted).

Petitioner contends that a person of ordinary skill in the art "would have at least a bachelor's degree in computer science or a related field, plus

[4] The parties have not directed our attention to any objective evidence of obviousness or non-obviousness.

at least one year of experience in the design and/or implementation of computerized information retrieval technology," and that [a]dditional education in the field of computer science may serve as a substitute for experience in the field." Pet. 7 (citing Ex. 1003 ¶ 35). Patent Owner, at this stage, does not disagree or propose a different definition of the person of ordinary skill in the art.

Petitioner's definition is consistent with the level of ordinary skill reflected in the prior art references of record. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001) (recognizing that the prior art itself may reflect an appropriate level of skill in the art). For purposes of this decision, we apply Petitioner's definition of the person of ordinary skill in the art.

D. Discussion

We apply the same claim construction standard used in district court actions under 35 U.S.C. § 282(b), namely that articulated in *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc). *See* 37 C.F.R. § 42.100(b) (2021). In applying that standard, claim terms generally are given their ordinary and customary 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*, 415 F.3d at 1312–13. "In determining the meaning of the disputed claim limitation, we look principally to the intrinsic evidence of record, examining the claim language itself, the written description, and the prosecution history, if in evidence." *DePuy Spine, Inc. v. Medtronic Sofamor Danek, Inc.*, 469 F.3d 1005, 1014 (Fed. Cir. 2006) (citing *Phillips*, 415 F.3d at 1312–17).

In this case, Petitioner effectively asks us, in order to reach its obviousness challenge, to assume a claim construction that Petitioner argues

is incorrect and unsupportable. *See* Pet. 8–12; *see also* Prelim. Resp. 69 (Patent Owner arguing that "Petition[er] violated 37 C.F.R. § 42.104(b)(3) by asking the Board to assume a claim construction because the Board must use same claim construction standard that would be used to construe the claim in a civil action under 35 U.S.C. § 282(b)."). For example, as to the claim term "mechanism for receiving a resource response set of results obtained in response to a current user query," Petitioner argues that, "despite being indefinite, this [means-plus-function] term should be evaluated based on . . . a structure of 'a general-purpose computer.'" Pet. 34. We, for the reasons discussed below, decline to do so.

Independent claim 1 recites two "mechanism" limitations, specifically:

> mechanism for receiving a resource response set of results obtained in response to a current user query; [and]
>
> mechanism for receiving a user context vector associated with said current user query, said user context vector comprising data associating an interaction state with said user and including context that is a function of the user.

Ex. 1001, 20:8–14.

Petitioner contends that "mechanism" is a nonce word and that, in each of the above-quoted limitations, the nonce word is followed by a function to be performed by the mechanism. Pet. 10. Based on this, Petitioner contends that these are means-plus-function limitations governed by the sixth paragraph of 35 U.S.C. § 112. *Id.* at 8, 10.

A means-plus-function limitation "shall be construed to cover the corresponding structure [for performing the recited function] . . . described in the specification and equivalents thereof." 35 USC 112, para. 6. Thus, a proper construction of a means-plus-function limitation requires the

identification of that corresponding structure. *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1351 (Fed. Cir. 2015) (en banc). To be corresponding structure, the intrinsic evidence (*e.g.*, the specification) must clearly link or associate the structure to the recited function. *B. Braun Med., Inc. v. Abbott Labs*, 124 F.3d 1419, 1424 (Fed. Cir. 1997) ("We hold that, pursuant to this provision [of Section 112, paragraph 6], structure disclosed in the specification is 'corresponding' structure only if the specification or prosecution history clearly links or associates that structure to the function recited in the claim.") (cited approving in *Williamson*, 792 F.3d at 1352). Consistent with these principles, our rules require a petition to provide a statement as to how the claims are to be construed and, for a means-plus-function element under 35 U.S.C. § 112 ¶ 6, to "identify the specific portions of the specification that describe the structure, material, or acts corresponding to each claimed function." 37 C.F.R. § 42.104(b)(3).

Petitioner argues the Specification of the '676 patent lacks disclosure of corresponding structure for either of the above-quoted "mechanism" limitations and argues that, therefore, independent claim 1 is invalid as being indefinite. *See* Pet. 11 ("[T]he specification of the '676 patent fails to identify adequate structure associated with the claimed function [of the first "mechanism" limitation], rendering claim 1 indefinite."); *id.* at 12 ("[N]either the '676 patent nor the Incorporated Applications provides sufficient structure for the claimed function [of the second 'mechanism' limitation]."); *see also* Ex. 1003 ¶ 65 (Dr. Crovella opining that "the specification of the '676 patent fails to recite adequate structure for any of the claimed mechanisms.").

Recognizing that the Board does not institute an *inter partes* review based on an indefiniteness challenge, Petitioner argues that, "for the purpose of the present [obviousness] invalidity analysis only, the Board should construe this [first purported means-plus-function] term as having . . . the structure of 'a general-purpose computer.'" Pet. 12 (citing Ex. 1003 ¶¶ 76–78); *see id.* (same for the second purported means-plus-function term); *see also* 35 U.S.C. § 311(b) ("A petitioner in an inter partes review may request to cancel as unpatentable 1 or more claims of a patent only on a ground that could be raised under section 102 or 103 and only on the basis of prior art consisting of patents or printed publications.").

In asking us to construe independent claim 1 as encompassing a general-purpose computer solely for purposes of an *inter partes* review, Petitioner contends that "a general-purpose computer or computer processor can perform the function of 'receiving' data" for both "mechanism" limitations. Pet. 11–12 (citing *In re Katz*, 639 F.3d 1303, 1316 (Fed. Cir. 2011); Ex. 1003 ¶¶ 76–85). Petitioner implicitly acknowledges that, to be corresponding structure, the disclosed structure must be clearly linked or associated to the performance of the recited function. *See id.* at 10–11. Petitioner, however, argues that neither a general-purpose computer nor any other structure in the '676 patent is clearly linked or associated with the recited functions. *Id.* at 10–12; *see also, e.g.*, Ex. 1003 ¶ 74 (Dr. Crovella testifying that "[n]one of these structures [identified in the '676 patent] are clearly linked or associated with the claimed function of 'receiving a resource response set of results obtained in response to a current user query.'"). Accordingly, Petitioner does not characterize a general-purpose

computer as corresponding structure, which would be a position that would be inconsistent with Petitioner's indefiniteness argument.

On the facts of this case, where Petitioner argues that there is no corresponding structure, we decline to assume for purposes of an obviousness analysis that the corresponding structure is a general-purpose computer.

Because Petitioner has not identified the corresponding structures of the "mechanism" elements, which Petitioner contends are means-plus-function elements, Petitioner has not complied with our rules. 37 C.F.R. § 42.104(b)(3). Rather, Petitioner has proposed constructions that it alleges are incorrect. Having proposed constructions it alleges are incorrect, Petitioner is unlikely to prove in a trial that those constructions are correct. Nevertheless, Petitioner asks us to apply prior art to these allegedly incorrect constructions because, it argues, it is not impossible to do so. *See* Pet. 9. However, we decline to adopt and apply allegedly incorrect constructions, even if it might be possible to apply prior art to such incorrect constructions. In sum, because Petitioner has not identified adequately the claimed structures corresponding to the alleged means-plus-function claim terms, Petitioner has not demonstrated a reasonable likelihood of proving that the relied on prior art teaches or suggests those corresponding structures. Accordingly, Petitioner has not demonstrated a reasonable likelihood of prevailing on its obviousness challenges to the sole challenged independent claim and those that depend therefrom. We cannot and do not reach Petitioner's arguments that the challenged claims are unpatentable for being indefinite.

III. CONCLUSION

Petitioner has not demonstrated a reasonable likelihood of prevailing in showing the unpatentability of any of the challenged claims of the '676 patent.

IV. ORDER

For the foregoing reasons, it is

ORDERED that the Petition is *denied* and no trial is instituted.

PETITIONER:

Heath J. Brigg
Joshua Raskin
Leif Olson
Vimal M. Kapadia
Benjamin Gilford
GREENBERG TRAURIG, LLP
briggsh@gtlaw.com
raskinj@gtlaw.com
olsonl@gtlaw.com
kapadiav@gtlaw.com
gilfordb@gtlaw.com

PATENT OWNER:

Theodoros Konstantakopoulos
Taeg Sang Cho
Yung-Hoon Ha
DESMARAIS LLP
tkonstantakopoulos@desmaraisllp.com
tcho@desmaraisllp.com
yha@desmaraisllp.com