

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC.,
Petitioner,

v.

SMITH INTERFACE TECHNOLOGIES, LLC,
Patent Owner.

IPR2024-01090
Patent No. 10,725,581 B1

Before BARBARA A. BENOIT, NATHAN A. ENGELS, and
SHARON FENICK, *Administrative Patent Judges*.

ENGELS, *Administrative Patent Judge*.

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

I. INTRODUCTION

Apple Inc. (“Petitioner”) filed a Petition (Paper 2, “Pet.”) requesting institution of *inter partes* review of claims 1–3, 21, 29–31, 42–44, 54, and 62–65 (the “Challenged Claims”) of U.S. Patent No. 10,725,581 B1 (Ex. 1001, “the ’581 patent”). Smith Interface Technologies, LLC (“Patent Owner”) filed a Preliminary Response (Paper 6, “Prelim. Resp.”).

Applying the standard set forth in 35 U.S.C. § 314, which requires demonstration of a reasonable likelihood that Petitioner would prevail with respect to at least one challenged claim, we institute an *inter partes* review.

A. *Real Parties in Interest*

Petitioner identifies itself as real party in interest. Pet. 87. Patent Owner identifies itself as a real party in interest. Paper 3 (Patent Owner’s Mandatory Notices), 1.

B. *Related Matters*

As required by 37 C.F.R. § 42.8(b)(2), each party identifies *Smith Interface Technologies, LLC v. Apple Inc.*, Case No. 3-23-cv-01187 (S. D. Cal.), filed June 27, 2023. Pet. 87; Paper 3, 1. Patent Owner additionally identifies one concluded case: *Smith Interface Technologies, LLC v. Samsung Electronics Co., Ltd. et al.*, 2-22-cv-00290 (E. D. Tex.). Paper 3, 1.

C. Asserted Ground of Unpatentability

Petitioner asserts the following ground of unpatentability:

Claim(s) Challenged	35 U.S.C. §	References/Basis
1–3, 21, 29–31, 42–44, 54, 62–65	103 ¹	Blumenberg, ² Bhumkar, ³ Griffin ⁴

Pet. 2. Petitioner additionally cites, among other things, the declaration testimony of Dr. Andrew Cockburn. Ex. 1003. Patent Owner additionally cites the declaration testimony of Dr. Marc Davis. Ex. 2001.

II. DISCUSSION

A. Principles of Law

A claim is unpatentable if “the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious . . . to a person having ordinary skill in the art to which claimed invention pertains.” 35 U.S.C. § 103; *see KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007) (quoting 35 U.S.C. § 103(a)). The

¹ The ’581 patent issued from an application filed in 2019, but the ’581 patent identifies continuation applications and provisional applications dating as early as 2011. Patent claims are not entitled to a priority date merely because a patent claims priority on its face (*In re NTP, Inc.*, 654 F.3d 1268, 1276 (Fed. Cir. 2011)). For the reasons discussed in Section II.C, we apply the Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011) (“AIA”) to this proceeding for the purposes of this Decision. Our analysis would not change if the pre-AIA version of § 103 applied.

² US 2008/0259041 A1; published Oct. 23, 2008. Ex. 1004.

³ US 2008/0235594 A1; published Sept. 25, 2008. Ex. 1005.

⁴ US 2011/0248948 A1; filed Apr. 8, 2010. Ex. 1006.

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, objective evidence of non-obviousness.⁵ *Graham v. John Deere Co. of Kan. City*, 383 U.S. 1, 17–18 (1966). When evaluating a combination of teachings, we must also “determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue.” *KSR*, 550 U.S. at 418 (citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)). Whether a combination of prior art elements would have produced a predictable result weighs in the ultimate determination of obviousness. *Id.* at 416–417.

In an *inter partes* review, the petitioner must show with particularity why each challenged claim is unpatentable. *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1363 (Fed. Cir. 2016); 37 C.F.R. § 42.104(b). The burden of persuasion never shifts to Patent Owner. *Dynamic Drinkware, LLC v. Nat’l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015). Patent Owner may bear a burden of production, however, to show that the Challenged Claims are entitled to the benefit of an earlier filing date. *Id.* at 1379–80.

B. The ’581 Patent

Titled, “Devices, Methods and Graphical User Interfaces for Manipulating User Interface Objects with Visual and/or Haptic Feedback,” the ’581 patent states that “[e]mbodiments of the present invention generally

⁵ At this stage of the proceeding, Patent Owner has not presented objective evidence of non-obviousness.

relate to touch screens.” Ex. 1001, 1:38–39. The ’581 patent describes a mobile device having a touch screen, among other components. Ex. 1001, 13:61–14:11. Figure 18 of the ’581 patent is reproduced below.

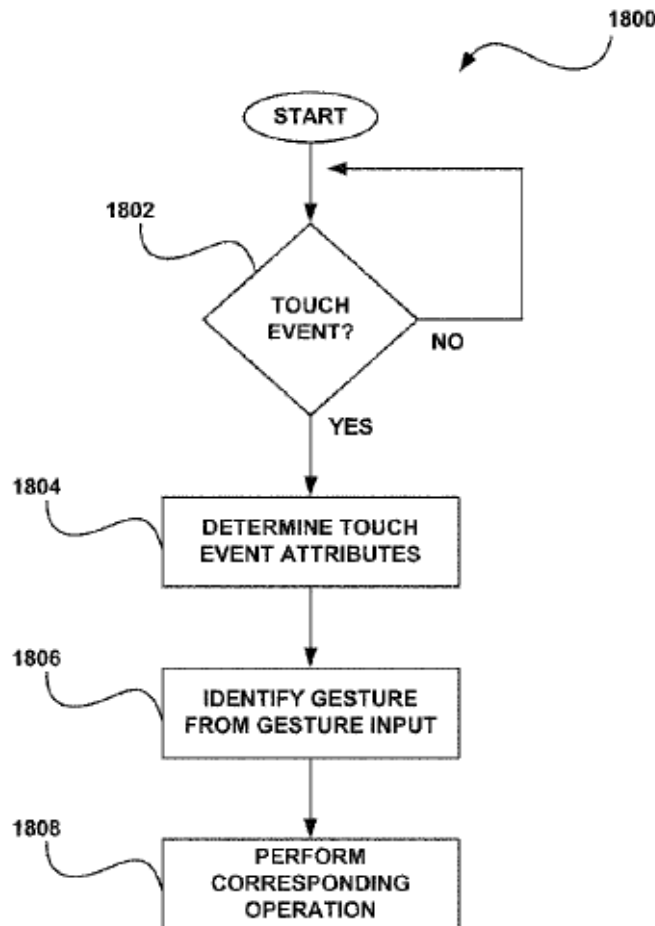


Figure 18 of the ’581 patent is a flow chart depicting decision diamond 1802, “Touch Event?”; step 1804, “Determine Touch Event Attributes”; step 1806, “Identify Gesture From Gesture Input”; and step 1808, “Perform Corresponding Operation.” *See* Ex. 1001, 56:24–57:10. Among other things, the detected attributes of a gesture can include the duration of a contact. Ex. 1001, 56:37–60.

C. Effective Priority Date

The '581 patent bears a November 18, 2019 filing date. Ex. 1001, code (22). The earliest potential priority date identified on the face of the '581 patent is a provisional application dated August 5, 2011. Ex. 1001, code (60).

Petitioner contends the “feature combination of Independent Claims 1 and 42 is not described in the '581 patent’s specification” and “[t]he specification offers nothing to substantiate a contention that the inventors possessed the purported invention of the Challenged Claims when the '581 patent was filed in 2019, much less as of the claimed priority date of August 5, 2011.” Pet. 5; *see* Pet. 3 (“The '581 patent is not entitled to its earliest claimed priority date of August 5, 2011.”).

Petitioner relies on its Exhibit 1038, an IEEE publication bearing a 2012 copyright date to support the motivation to combine. Pet. 15–16; Ex. 1003 ¶¶ 73–74). Patent Owner relies on the August 5, 2011 date of the earliest provision application identified on the '581 patent to assert that Exhibit 1038 post-dates the Challenged Claims, but makes no showing that any of the Challenged Claims are entitled to an earlier effective priority date. Prelim. Resp. 57, n.7. Patent claims are not entitled to a priority date merely because a patent claims priority on its face (*In re NTP, Inc.*, 654 F.3d 1268, 1276 (Fed. Cir. 2011)), and although the ultimate burden of persuasion remains on Petitioner, once the Petitioner satisfies the initial burden of production, that burden of production shifts to Patent Owner to show that the Challenged Claims are entitled to an effective priority date earlier than the '581 patent’s filing date (*Dynamic Drinkware*, 800 F.3d at 1379–80). In the particular circumstances of this case, based on the arguments in the Petition,

we determine the burden of production shifted from Petitioner to Patent Owner to prove that the Challenged Claims are entitled to the benefit of the August 5, 2011 date of the earliest provision application identified on the '581 patent. *Dynamic Drinkware*, 800 F.3d at 1380 (rejecting as unsound “a presumption that a patent is entitled to the benefit of the filing date of its provisional precursor. . . because the PTO does not examine provisional applications as a matter of course”). On the current record, Patent Owner has not shown that the Challenged Claims are entitled to the benefit of an earlier priority date.

D. Illustrative Claim

Of the Challenged Claims, claims 1 and 42 are independent claims. Claim 1 is copied below with labels mirroring those referenced in the parties' briefing.

[1.pre] An electronic device, comprising:

[1.a] a display;

[1.b] a touch-sensitive interaction surface;

[1.c] an actuator;

[1.d] one or more processors;

[1.e] memory; and

[1.f] one or more programs, wherein the one or more programs are stored in the memory and configured to be executed by the one or more processors, the one or more programs including instructions to:

[1.g] display, on the display and via a user interface of a network browser application, a first web page including a hyperlink that identifies a second web page;

- [1.h] detect a first contact starting at a first contact point at a first contact time on the touch-sensitive interaction surface;
- [1.i] detect an end of the first contact at a second contact time;
- [1.j] determine a duration of the first contact as a difference between the first contact time and the second contact time;
- [1.k] determine whether there is a contact movement of the first contact between the first contact point and a second contact point;
- [1.l] determine whether the first contact point of the first contact corresponds with a location of the hyperlink of the first web page;
- [1.m.i] when: the first web page is displayed via the user interface of the network browser application, [1.m.ii] the duration of the first contact is determined to be less than a first user-configurable predefined duration, and the end of the first contact is detected: [1.m.iii] avoid display, on the first web page, a result of any operation based on the first contact;
- [1.n.i] when: the first web page is displayed via the user interface of the network browser application, [1.n.ii] the duration of the first contact is determined to be greater than the first user-configurable predefined duration and less than a second user-configurable predefined duration, [1.n.iii] the first contact point of the first contact is determined to correspond with the location of the hyperlink of the first web page, [1.n.iv] it is not determined that there is the contact movement of the first contact between the first contact point and the second contact point, and [1.n.v] the end of the first contact is detected: [1.n.iv] replace the display of the first web page with the second web page via the user interface of the network browser application; and
- [1.o.i] when: the first web page is displayed via the user interface of the network browser application, [1.o.ii] the duration of the first contact is determined to be greater than the second user-configurable predefined duration, [1.o.iii] the first contact point

of the first contact is determined to correspond with the location of the hyperlink of the first web page, [1.o.iv] it is not determined that there is the contact movement of the first contact between the first contact point and the second contact point, and [1.o.v] the end of the first contact is not detected: [1.o.vi] output, utilizing the actuator, a first feedback that is perceptible by touch and [1.o.vii] display a menu including at least one option for, in response to detection of a selection thereof, performing an operation on a web address associated with the hyperlink of the first web page, and [1.o.viii] further display at least a portion of the second web page, such that at least the at least portion of the second web page is displayed in at least one first virtual display layer which appears above at least one second virtual display layer that includes at least a portion of the user interface of the network browser application that remains at least partially visible.

E. Level of Ordinary Skill in the Art

Petitioner contends that a person of ordinary skill in the art (“POSITA”) at the time of the alleged invention would have had a “a bachelor’s degree in computer science, computer engineering, or a comparable field and at least two years of professional experience working with graphical user interfaces and applications for computers.” Pet. 6 (citing Ex. 1003 ¶¶ 36–37). Patent Owner states that it does not agree with all aspects of Petitioner’s proposed level of ordinary skill, but Patent Owner also states that it does not believe that resolving the level of ordinary skill is necessary to resolve the issues raised in Patent Owner’s Preliminary Response. Prelim. Resp. 6.

For purposes of this Decision, we adopt the language quoted above in Petitioner’s assessment of the level of ordinary skill, which is uncontested at this stage. The Petition additionally advances statements regarding the “extensive background knowledge and understanding” allegedly possessed

by a person of ordinary skill in the art (Pet. 6–7); we do not at this stage adopt those portions of Petitioner’s assessment of a POSITA.

F. Claim Construction

We construe claims using the principles set forth in *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–17 (Fed. Cir. 2005) (en banc) and related cases. 37 C.F.R. § 42.100(b) (2021). Under that precedent, the words of a claim are generally 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*, 415 F.3d at 1312–13.

Both parties suggest we should apply the plain and ordinary meanings of all claim terms (Pet. 7; Prelim. Resp. 7, 10), but the parties additionally address the “when” claim limitations. According to Petitioner the “when” claim limitations, Limitations [1.o.i]–[1.o.viii], “only recite a basic when-then relationship and do not use typically causal language (such as ‘in response to’) or exclusive conditional language (such as ‘only when’))” (Pet. 52, n. 8). Patent Owner argues the Petition’s characterization of the “when” claim limitations unnecessarily adds ambiguity to the claim language while “[a] plain reading of claim 1 requires a program with instructions that cause the functions (e.g., displaying a context menu and further displaying at least a portion of the second web page) to be executed ‘when’ the prerequisite elements are satisfied.” Prelim. Resp. 8 (citing Ex. 1001, 57:9–10, Ex. 2001 ¶¶ 60, 74, 82); *see* Prelim. Resp. 37–38 (arguing Petitioner’s mapping does not satisfy the “when” requirements of Limitation [1.o.vii] and [1.o.viii]).

We note that both parties contend that the claims recite three scenarios. Pet. 1 (characterizing three claimed scenarios as (i) an “inadvertent” contact, (ii) a “tap” contact, and (iii) a “hold” contact), 4 (“Independent Claims 1 and 42 outline three scenarios regarding a user’s contact with a touch screen device”); Prelim. Resp. 3 (“With respect to claim 1, these three scenarios include:”); *see* Ex. 2001 ¶¶ 28 (“As recited in claim 1, the three different claimed functionalities are executed ‘when’ the prerequisite elements are met (described as three scenarios by Dr. Cockburn.”) (citing Ex. 1001, 102:50–103:55; Ex. 1003 ¶¶ 33–35), 29–32 (describing the first, second, and third scenarios). In substance, the parties’ dispute appears to concern whether the plain language of the claims requires that a recited function must be performed only after or in response to expiration of a threshold (and other prerequisites), as opposed to requiring a function that begins before and continues after expiration of a threshold.

Notably, dependent claim 3 recites: “The electronic device of claim 1, wherein the electronic device is configured such that the first feedback that is perceptible by touch is output *prior to* the display of the menu.” Ex. 1001, 104:1–4 (emphasis added). Given that independent claim 1 is necessarily broad enough to include claim 3, it seems on this record that the functions recited in Limitation [1.o] necessarily can happen at different times, as opposed to, for example, only responses that are triggered by the so-called “prerequisite elements.” We encourage the parties to address this issue as a matter of claim interpretation in future briefing. Based on the current record, however, we determine that it is not necessary to provide an express interpretation of any claim terms at this stage of the proceeding. *See Realtime Data, LLC v. Iancu*, 912 F.3d 1368 (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)).

G. Alleged Obviousness of Claim 1

Petitioner presents a claim-by-claim, limitation-by-limitation comparison of claims 1–3, 21, 29–31, 42–44, 54, 62–65 to the combined teachings of Blumenberg, Bhumkar, and Griffin, along with alleged reasons for combining the references’ teachings. Pet. 24–64. Patent Owner substantively addresses Petitioner’s showings for independent claim 1 as representative, noting that independent claim 42 includes similar limitations. *See, e.g.*, Prelim. Resp. 25–46 (substantively discussing Limitation [1.m], stating Limitation [42.h] is similar), 33–46 (substantively Limitation [1.o], stating Limitation [42.i] is similar). Patent Owner also addresses Petitioner’s showings regarding alleged reasons to combine the prior art. Prelim. Resp. 46–64.

For the reasons discussed below, we determine Petitioner has shown a reasonable likelihood that it would prevail in its challenge to claim 1. We discuss the parties’ arguments and evidence below to provide guidance for the trial phase.

1. Limitations [1.pre]–[1.l]

Among other things, Petitioner cites Blumenberg⁶ as disclosing an electronic device having a touch-sensitive display, processors, memory, and

⁶ Throughout this analysis, we discuss individual teachings of one or more references primarily for ease of reference, but we recognize throughout our

a program stored in memory to be executed by the processors. Pet. 24–25 (citing, e.g., Ex. 1004 ¶¶ 9, 29–33). Petitioner additionally cites Griffin for its teachings of an actuator that provides tactile feedback in response to determining that a user’s contact on a touch screen has reached a given touch threshold. Pet. 24–25 (citing Ex. 1006 ¶ 14, 24, 30, 32, 34, 35, 53, 57, Fig. 1).

According to Petitioner, Blumenberg teaches displaying in a browser application a first webpage that includes links to various targeted (second) webpages. Pet. 26–27 (citing Ex. 1004 ¶¶ 2–5, 20, 24, 30, 31, 36, 44, 45, Fig. 5A). Regarding Limitations [1.h–1.j], Petitioner contends that Blumenberg teaches a process flow in which a first contact with the touch screen is detected and a first point within the contact area is determined at a first contact time (Pet. 27 (citing Ex. 1004 ¶¶ 7–11, 25, 29, 32, 34, 36–38, 42, 43, 46, 47, 49, 51)), and Petitioner states that “[i]t would have been apparent or obvious to a POSITA that a ‘break,’ as disclosed by Blumenberg, marks an end of the first contact at a second contact time.” Pet. 28 (citing Ex. 1003 ¶¶ 104, 105) (emphasis omitted). Petitioner additionally cites Blumenberg and/or Griffin as teaching device functionality that is at least in part dictated by touch duration. Pet. 28–29 (citing Ex. 1003 ¶ 106). According to Petitioner, Blumenberg and Griffin both teach determining a first touch duration as the difference between the first contact time and the second contact time. Pet. 29–31 (citing, e.g., Ex. 1004 ¶¶ 49, 41; Ex. 1006 ¶¶ 32, 37, 40, 42, 43, Fig. 7; Ex. 1003 ¶¶ 107–110).

analysis that Petitioner relies on the combined teachings of Blumenberg, Bhumkar, and Griffin.

Regarding Limitation [1.k], Petitioner contends Blumenberg teaches functionality to detect any movement of the points of contact between the time of a first contact and a break of the contact. Pet. 31–32 (citing Ex. 1003 ¶¶ 111, 112; Ex. 1004 ¶¶ 25, 29, 46, 52). Petitioner also contends Blumenberg teaches determining the displayed link that is closest to the determined point (Pet. 32–33 (citing Ex. 1004 ¶¶ 7–11, 36–39, 41–48, 52, Figs. 1–5I), and that “[i]t would have been apparent and/or obvious to a POSITA exercising common sense and ordinary creativity that Blumenberg’s discussion of selecting a link based on its proximity to the first contact point provides the claimed feature of determining whether the first contact point corresponds with a location of the hyperlink.” Pet. 33 (citing Ex. 1003 ¶ 114).

Patent Owner does not specifically address Petitioner’s showings for these limitations. At this stage, we are preliminarily persuaded Petitioner has shown that the combined teachings of the prior art satisfy these limitations.

2. Limitations [1.m.i–1.m.iii]

Petitioner relies primarily on the combined teachings of Blumenberg and Griffin for Limitations [1.m.i–1.m.iii], and Patent Owner presents several arguments responding to Petitioner’s showings.

According to Petitioner, “Blumenberg’s technique disregards inadvertent contact, such as contact maintained for—i.e., initiated and ended within—an exceedingly short duration” such as some predetermined time between 0.1 and 0.25 seconds. Pet. 34 (citing Ex. 1004 ¶¶ 34, 49; Ex. 1003 ¶¶ 118, 119). Petitioner also cites Griffin as teaching the use of user-configurable baseline thresholds to reduce inadvertent input and

disregarding inadvertent inputs that do not meet such thresholds. Pet. 35–36 (citing Ex. 1006 ¶¶ 14, 33, 40–43, 46–53, 61, Fig. 7).

Patent Owner argues the paragraphs of Blumenberg cited by Petitioner “only state[] what occurs ‘*after* the contact is maintained for at least a predetermined time’—the link information is displayed. The cited portion of Blumenberg does not provide any detail on what occurs when contact is broken *before* the predetermined time.” Prelim. Resp. 25 (quoting Ex. 1004 ¶ 49). According to Patent Owner, “Petitioner *assumes*—with no evidence or further explanation—that contacting the hyperlink for less than the predetermined time will not display the link.” Prelim. Resp. 25.

Patent Owner additionally argues Blumenberg’s paragraph 34 describes inadvertent contact with an icon, not a webpage hyperlink, and that in this paragraph Blumenberg teaches not selecting tap-enabled icons when a swipe gesture occurs over the icon. Prelim. Resp. 26 (citing Ex. 1004 ¶ 34, Ex. 2001 ¶ 62). According to Patent Owner, the differentiation in the movement of gestures is independent and unrelated to the duration of a contact, and Patent Owner argues Petitioner’s arguments would combine separate disclosures of Blumenberg without adequate support. *Id.*

Patent Owner further argues that in Petitioner’s theory, “a user cannot open the hyperlink except by holding the link until the information . . . is displayed,” but accord to Patent Owner, “this operation is explicitly contradicted by Blumenberg, which allows for activating links without having to first display the link information.” Prelim. Resp. 27 (citing Ex. 1004 ¶¶ 44, 50, 51, Figure 4, claims 1, 2, 18; Ex. 2001 ¶ 66). Patent Owner also contends that Blumenberg provides an example of links on a display with clear separation between the links that would mitigate the risk

of links being inadvertently clicked, and Patent Owner argues that in such a situation, Petitioner's theory would require users to "go through the superfluous process of displaying the hyperlink preview window and interacting with the pop-up window to visit the website that the user clearly intended to click (i.e., with no neighboring links to misclick)." Prelim. Resp. 27–30 (citing Ex. 1004 ¶¶ 44, 50, 51, Fig. 5A; Ex. 2001 ¶¶ 66–68).

Addressing Griffin, Patent Owner argues Petitioner "does not propose any modification of Blumenberg to not activate a link when the contact is less than the 'selection threshold.'" Prelim. Resp. 30. Patent Owner contends that "[a]lthough[] Petitioner cites portions of Griffin that disclose 'inadvertent' touching there is no modification to employ such features, let alone the necessary motivation to establish obviousness with the required particularity." Prelim. Resp. 31. Patent Owner also argues that "although Griffin states that a touch may be considered inadvertent based on the 'duration of touch,' a POSITA would not have understood this as teaching that a single tap would be deemed inadvertent" and "there is nothing in Griffin that teaches to not activate a hyperlink after it is determined that a user touches that link." Prelim. Resp. 32 (citing Ex. 2001 ¶ 72).

On the current record, we preliminarily determine Petitioner has made sufficient showings for Limitations [1.m.i–1.m.iii]. First, as cited by both parties, Blumenberg states that "information is displayed after the contact is maintained for at least a predetermined time (e.g., 0.2 seconds, or another value between 0.1 and 0.25 seconds) for displaying the link information." Ex. 1004 ¶ 49. Contrary to Patent Owner's arguments, on the present record this statement is clear on its face, and we are preliminarily persuaded that a POSITA would understand that statement to teach or reasonably suggest that

information is not displayed before the duration of a contact reaches “at least a predetermined time . . . for displaying the link information.” Ex. 1004 ¶ 49; *see* Ex. 1003 ¶¶ 91, 119; Ex. 2001 ¶ 63 n.2 (opining that the industry understands the duration of a tap gesture). We also preliminarily disagree on this record with Patent Owner’s arguments that Blumenberg’s teachings of inadvertent contacts are limited to contacts with “icons” instead of hyperlinks; both Blumenberg and Griffin address inadvertent contacts with areas of a touchscreen, and the preliminary record reflects that this was a known issue for touchscreens on mobile devices that is not limited by the informational content depicted on the touchscreen. *See* Ex. 1004 ¶ 4 (“The small screen size [of portable devices] limits the amount of information and/or the size of the information that can be shown on the screen.”; “navigating to other webpages via the hyperlinks takes on a hit-or-miss character”); Ex. 2001 ¶¶ 17, n.1 (opining that in a mobile user interface context, “it can be difficult for a user to be able to easily and accurately press an intended small icon, virtual key, or virtual button with the finger, especially when these small icons, virtual keys, or virtual buttons are arrayed next to one another”), 38 (stating that “Blumenberg’s GUI is designed to overcome the ‘small screen size’ of portable devices”), 39 (stating that Blumenberg “provides quick, easy to read information to help the user *confirm correct finger contact* with the selected hyperlink”) (emphasis added), 64 (discussing a POSITA’s “design choices required in a UI as they apply to different kinds of UI objects and gestures”).

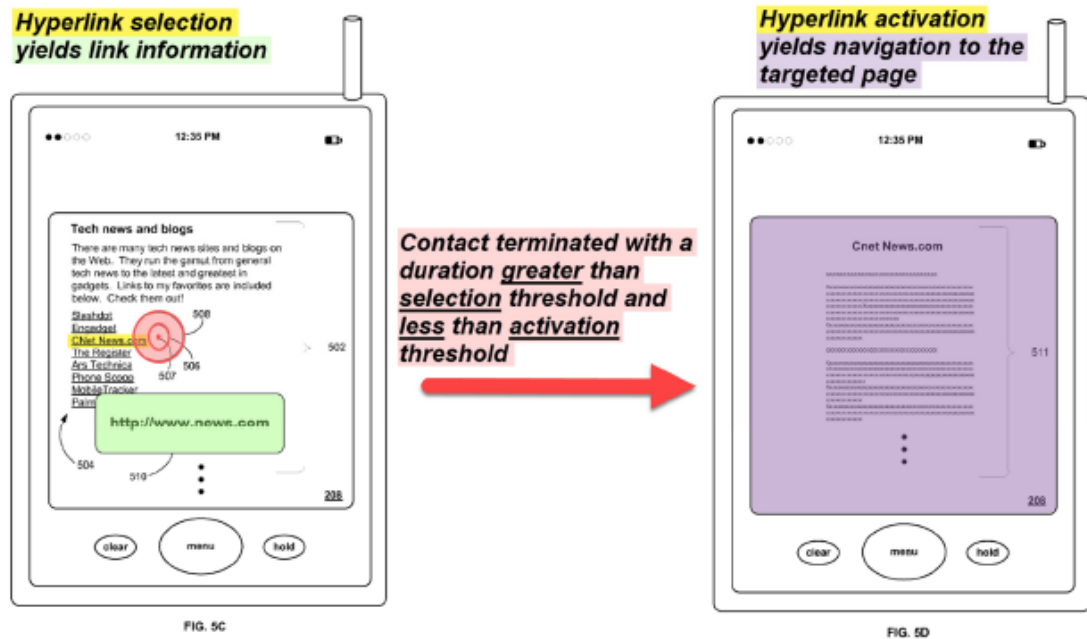
On this record, we also preliminarily disagree with Patent Owner’s characterization of “Petitioner’s theory” as allegedly contradicted by Blumenberg “which allows for activating links without having to first

display the link information.” Prelim. Resp. 27. Among other things, as cited by Petitioner, Blumenberg teaches using different criteria for contact duration and contact proximity to trigger different resulting functions, including recognizing that links can be activated with or without first displaying link information (*see, e.g.*, Ex. 1004, Figs. 3, 4), and Patent Owner’s declarant Dr. Davis provides evidence that a POSITA would understand such issues to be matters of design choices. Ex. 2001 ¶ 64; *see* Ex. 2001 ¶¶ 68 (emphasizing that a POSITA would understand “specific objects and actions of UI design solutions” and not just focus on a “general aim”), 96 (stating that a POSITA “knew the implementation of desktop UI features in a mobile UI was a ‘challenge’”). Obviousness is not limited to the express disclosures of the prior art but instead involves what “a person of ordinary creativity, not an automaton,” would understand from the prior art. *KSR*, 550 US at 421; *see Intel Corp. v. Qualcomm Inc.*, 21 F.4th 784, 799–800 (Fed. Cir. 2021) (determining that a showing of the obviousness in “predictable use of prior art elements according to their established functions” (as per *KSR*, 550 U.S. at 417) requires only a showing that the combination be a suitable option, rather than a showing that it is the best option).

Accordingly, based on our review of the current record, we are preliminarily persuaded that Petitioner has adequately shown that the combined teachings of Blumenberg and Griffin satisfy Limitations [1.m.i–1.m.iii].

3. Limitations [1.n.i–1.o.v]

For Limitations [1.n.i–1.n.vi], Petitioner provides annotated versions of Blumenberg’s Figures 5C and 5D, reproduced below, as reflective of its arguments.



Pet. 38. Among other things, Petitioner’s annotated versions of Blumenberg’s Figures 5C and 5D summarize Petitioner’s arguments as depicting “that a link is activated when the user ends the contact with the link at a **duration** that is **greater than** the selection threshold (**first predefined duration**) and **less than** the activation threshold (**second predefined duration**).” Pet. 38 (summarizing arguments); *see* Pet. 36–41. Petitioner additionally cites Griffin as teaching that duration thresholds are user-configurable. Pet. 39. Petitioner also states that a POSITA would have understood that Blumenberg teaches or suggests detection of scenarios in which a user moves or does not move its finger from a point of contact with the touch screen. Pet. 39–40.

For Limitations [1.o.i–1.o.iii], Petitioner relies on the combined teachings of Blumenberg, Bhumkar, and Griffin. Pet. 46–53; *see also* Prelim. Resp. 34–63 (discussing Patent Owner’s understanding of Petitioner’s proposed combinations and modifications). Among other things, Petitioner cites Blumenberg as teaching or suggesting that the touchscreen’s web browser remains on the current webpage when the duration of a first contact is greater than an activation threshold without movement of the contact, the touchscreen’s web browser would display link information that includes menu options and a snippet of the content of the target webpage. *See, e.g.*, Pet. 13–18, 46–47, 49. Petitioner additionally discusses Griffin’s teachings relating to the process of monitoring the duration of a touch against different thresholds and providing tactile feedback, among other functions. Pet. 43 (citing Ex. 1006, Fig. 7). And Petitioner contends Bhumkar provides an alternative basis with Bhumkar’s teachings of a “quick view” or “preview” of a hyperlink’s target webpage. *See, e.g.*, Pet. 46–48, 50. According to Petitioner, “while Blumenberg’s link information (*second webpage portion*) is initially displayed before the activation threshold, it would be paired with tactile *feedback* and a *menu* only after and as a consequence of the activation threshold.” Pet. 53 (citing Ex. 1003 ¶ 158).

Patent Owner first argues that Petitioner “tacitly concedes” that its mapping fails to meet Limitations [1.o.vii] and [1.o.viii]. Prelim. Resp. 37 (citing Pet. 46 n.7). Footnote 7 on page 46 of the Petition refers to Petitioner “‘Fourth’ motivation rationale” referencing Section IV.A.4.a, found in the Petition at pages 17–18. Pet. 17–18 (citing Ex. 1003 ¶¶ 77–82). This footnote in the Petition contrasts the possible interpretation that the claim

requires menu options to be displayed only when the conditions of Limitations [1.o.i]–[1.o.v] occur (termed by Patent Owner as the Petitioner’s “Alternative Modification,” *see* Prelim. Resp. 36) with the combination in which the options are associated with and appear with the webpage preview (termed by Patent Owner as the Petitioner’s “Initial Modification,” *see* Prelim. Resp. 35–36). Pet. 46 n.7.

According to Patent Owner, “Petitioner’s [Initial] modification executes the function of displaying the alleged ‘menu’ ([1.o.vii]) and ‘portion of the second web page’ ([1.o.viii]) **before** the second user-configurable predefined duration (i.e., activation threshold) is met.” Prelim. Resp. 37 (citing Pet. 36–38; Ex. 2001 ¶ 84). Further, Patent Owner argues “Petitioner contends that the combination ‘continues displaying the link information’ when the user maintains the contact for a duration greater than the activation threshold,” which does not satisfy “the plain language of the claims, which requires that the function (e.g, displaying a context menu and further displaying at least a portion of the second web page) is executed when the prerequisite elements are satisfied.” Prelim. Resp. 38 (quoting Pet. 49).

Next, Patent Owner argues that “Petitioner’s Alternative Modification results in Blumenberg’s link information being displayed ‘only **after** and as a consequence of the activation threshold.” Prelim. Resp. 39 (citing Pet. 52). Patent Owner argues this is “admittedly contrary to Blumenberg’s teachings where the ‘link information (second webpage portion) is initially displayed **before** the activation threshold,” and according to Patent Owner, “Petitioner and Petitioner’s expert do **not** provide any motivation for making the modification to display Blumenberg’s link information after the activation

threshold.” Prelim. Resp. 39. Patent Owner further argues that “[w]hile the Petition cites to the ‘Fourth’ motivation rationale’ for modifying the display of a menu, the Petition does not offer or cite to any rationale for modifying the display of the link information” and “[a]s the Petition provides no motivation to make the ‘Alternative Modification,’ it cannot legally establish obviousness.” Prelim. Resp. 39 (citing *KSR*, 550 U.S. at 418).

Patent Owner additionally argues Petitioner’s “Alternative Modification” is internally inconsistent with its analysis of Limitation [1.n.ii]. Prelim. Resp. 40. According to Patent Owner, “Petitioner’s mapping to Limitation [1.n.ii] requires that ‘the link information was displayed’ at the selection threshold and the user ends the contact before the activation threshold,” but Patent Owner contends “Petitioner’s Alternative Modification requires that the link information would not be displayed until after the activation threshold.” Prelim. Resp. 40 (citing Pet. 37, 52). According to Patent Owner, “[b]y eliminating the display of the link information, Petitioner destroys the functionality to activate the link by breaking contact after the display of the link information but before the activation threshold.” Prelim. Resp. 40.

Patent Owner further argues that, for what Patent Owner calls “Petitioner’s Alternative Modification,” there is no logical reason that would have prompted a POSITA to delay the display of Blumenberg’s link information 510 until after the activation threshold is met. Prelim. Resp. 41. According to Patent Owner, “no functionality can occur unless the contact is maintained until after the second threshold (activation threshold) is met” and “this modification would render Blumenberg’s first, ‘selection’ threshold useless as there would no longer be any function associated with that

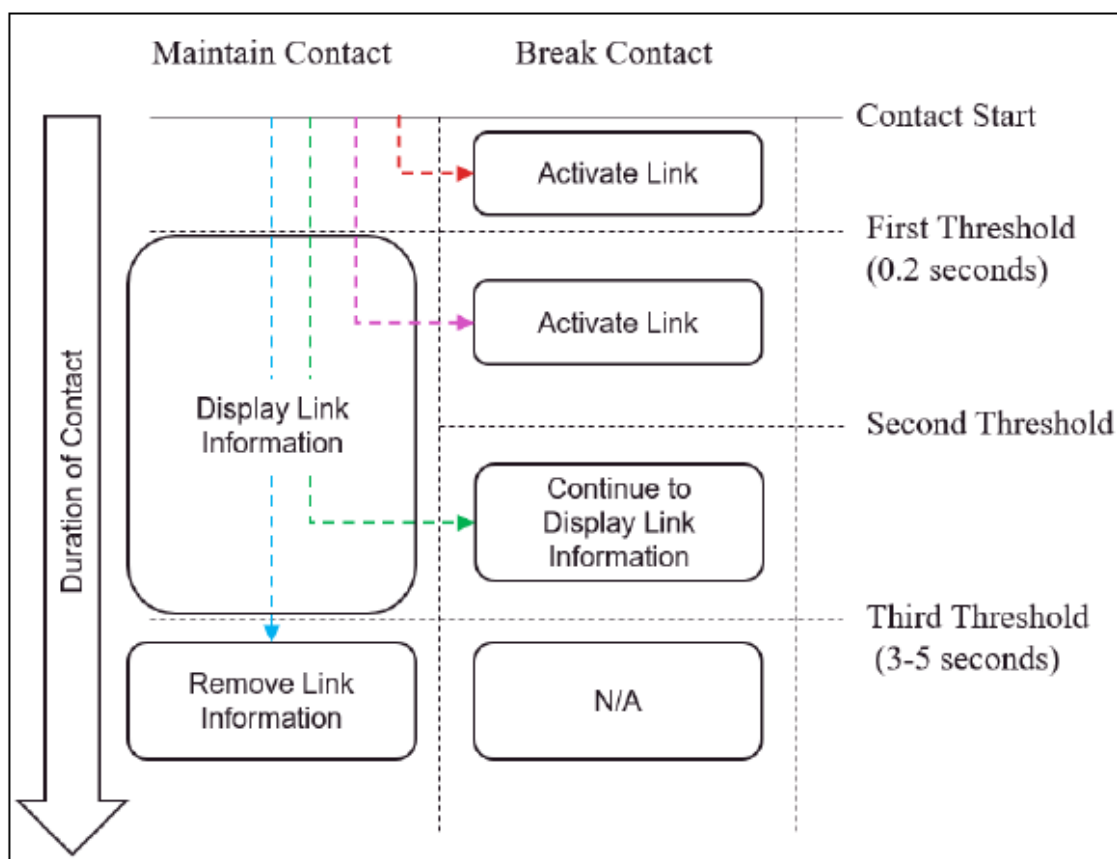
threshold (e.g., no display of link information or menu).” Prelim. Resp. 42 (citing Ex. 2001 ¶ 89). Further, according to Patent Owner, Petitioner’s “Alternative Modification would require the user to maintain contact for a much longer period to activate the link information 510 and would also require additional user inputs.” Prelim. Resp. 43.

Further still, Patent Owner argues that to the extent that Petitioner proposes a modification in which Blumenberg’s link information is displayed after the selection threshold and the menu information is displayed after the activation threshold, “this self-created modification is hindsight that is not supported by either Blumenberg or Bhumkar.” Prelim. Resp. 45. According to Patent Owner, “Blumenberg discloses displaying all information associated with its hyperlink preview (e.g., URL, title, snippet of content, etc.) at the same time, after exceeding the *selection* threshold” and “Bhumkar displays its preview window 54 simultaneously with its integrated toolbar 56.” Prelim. Resp. 45.

At this stage, we determine Petitioner has adequately shown that the combined teachings of Blumenberg, Bhumkar, and Griffin satisfy Limitations [1.n.i–1.o.v]. First, we note that Patent Owner and its declarant recognize that Blumenberg broadly teaches that a touch screen can be programmed to perform different operations in response to contact: “In Blumenberg, a user can contact the touch screen 208 (e.g., at contact area 506 and/or contact point 507) to perform operations.” Ex. 2001 ¶ 40. “One such operation is the selection of a target link within the set of links 504.” Ex. 2001 ¶ 40. “In addition to activating the target link based on the initial contact, as described in paragraphs [0042]–[0044] of Blumenberg, there are other scenarios in which the user can maintain their contact to perform the

functions. These functions include displaying link information 510 that is associated with the target link in the hyperlink preview window.” Ex. 2001 ¶ 41.

Dr. Davis also explains that the references teach operations or functions with duration-based contact and thresholds, noting as one example that Blumenberg states that “link information 510 ‘is displayed after contact is maintained for at least a predetermined time (e.g., 0.2 seconds, or another value between 0.1 and 0.25 seconds, ’” and “[i]n another example, if the contact continues to be maintained (e.g., three to five seconds), ‘the information 510 may be removed.’” Ex. 2001 ¶ 41 (quoting Ex. 1001 ¶ 49). According to Dr. Davis, Blumenberg also discloses performing operations after contact is broken when a user removes his or her finger from the touchscreen, “where the operations are based on the amount of time the contact was maintained before the contact break.” Ex. 2001 ¶ 41 (citing Ex. 1004 ¶¶ 49–51). Dr. Davis presents the flow chart reproduced below to illustrate “four different operations based on the time that the contact is maintained and when the contact is broken.” Ex. 2001 ¶ 41 (citing Ex. 1003 ¶¶ 59–64).

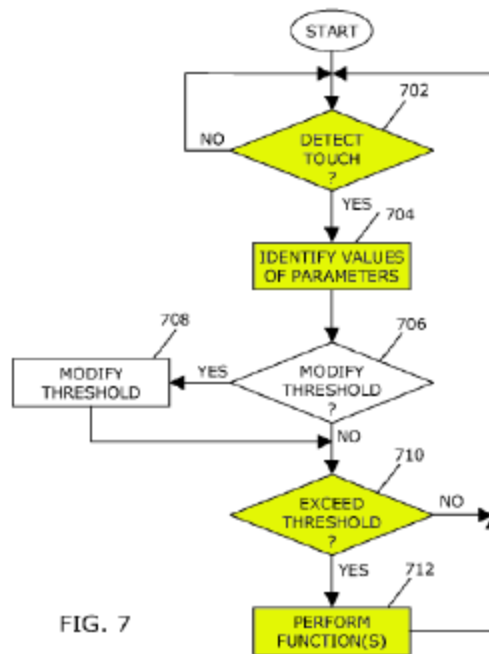


As stated by Dr. Davis, the flow chart illustrates a first scenario represented by a red line in which a user does not maintain contact more than a “First Threshold” of 0.2 seconds, with the flow chart purporting to indicate that Blumenberg’s system would “Activate Link.”⁷ Ex. 2001 ¶ 43. The flow chart’s purple line represents a scenario in which a user maintains contact longer than the first threshold (the “selection threshold”) but breaks contact before the second threshold (the “activation threshold”), with the flow chart indicating that the system would “Display Link Information.” Ex. 2001

⁷ For the reasons explained above, we are preliminarily persuaded that a POSITA would understand Blumenberg to teach or suggest not activating a link for contacts with a duration of less than a first threshold.

¶ 46. The flow chart's green line represents a scenario in which a user maintains contact longer than both the first threshold and the second threshold but breaks contact before a third threshold of 3–5 seconds, with the flow chart indicating that the system would “Continue to Display Link Information.” Ex. 2001 ¶ 47. And the flow chart's blue line represents a fourth scenario in which a user maintains contact longer than the third threshold, with the flow chart indicating that the system would “Remove Link Information.” Ex. 2001 ¶ 48.

Griffin's Figure 7, as cited by both Petitioner (Pet. 43) and Patent Owner (Prelim. Resp. 21), reflects similar functionality; reproduced below is Petitioner's highlighted version of Griffin's Figure 7:



Pet. 43. Petitioner's annotated version of Griffin's Figure 7 depicts a flow chart with highlighting to emphasize step 702 "Detect Touch?"; 704 "Identify Values of Parameters"; 710 "Exceed Threshold?"; and 712 "Perform Function(s)."

The declarants’ testimony (*e.g.*, Ex. 1003 ¶¶ 52–64; Ex. 2001 ¶¶ 38–39, 53–56) and cited evidence support Petitioner’s arguments that duration-based touch gestures that trigger a variety of operations were well known in the art. *See* Ex. 1003 ¶ 56 (presenting “numerous prior art patent documents that describe duration-based touch gestures in touch screen mobile devices” (citing Ex. 1024; Ex. 1025; Ex. 1034; Ex. 1035; Ex. 1036)). The preliminary record also supports Petitioner’s positions that the recited functions or operations were also known in the art.

Among other things, Dr. Davis acknowledges that Blumenberg teaches navigating to a second web page upon certain touch gestures (*e.g.*, Ex. 2001 ¶ 40) and displaying certain information upon certain other touch gestures (Ex. 2001 ¶ 41). We preliminarily agree with Petitioner that displaying a menu and having an actuator provide tactile feedback were also well known functions or operations. *See* Pet. 12–15, 19–21.

On this record, we preliminarily agree with Petitioner that the claim limitations amount to a combination of known elements that a POSITA could have combined to achieve predictable results. *See Intel*, 21 F.4th at 799–800 (determining that a showing of the obviousness in predictable use of prior art elements according to their established functions requires only a showing that the combination be a suitable option). Among other reasons, the preliminary record supports Petitioner’s arguments that combining the teachings of Blumenberg, Bhumkar, and Griffin amounts to applying known solutions in the field of computer interfaces with predictable outcomes. *See* Pet. 12–18.

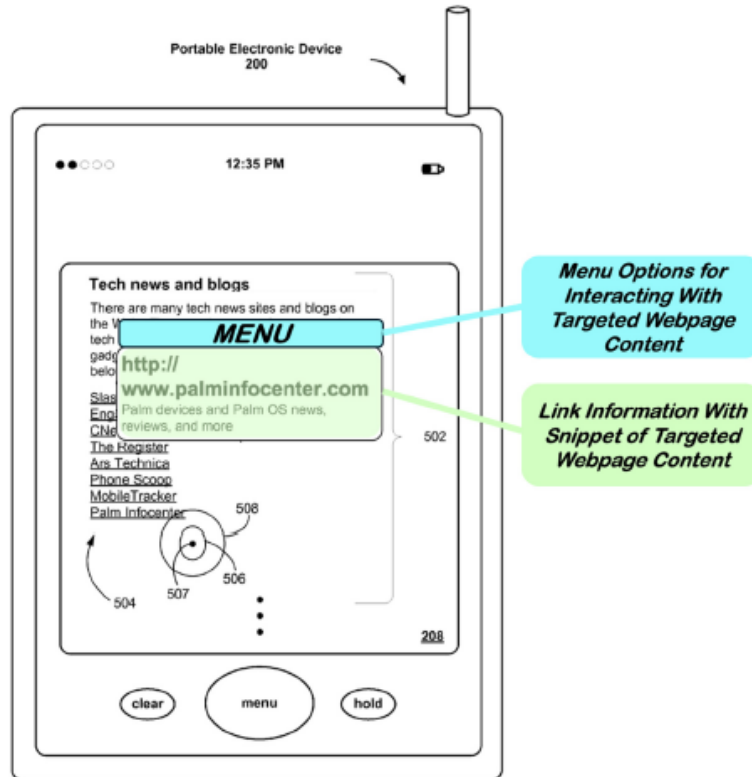
As noted above, we encourage the parties to address the scope and meaning of the “when” limitations as a matter of claim interpretation, but we

do not currently understand the plain language of Limitation [1.o] to require that the “portion of the second web page” or “menu” is displayed only after expiration of the “second user-configurable predefined duration,” termed by Patent Owner the “Alternative Modification.” Again, we encourage the parties to fully address this issue as a matter of claim construction. We additionally note that, even if we were to interpret the claims to require that the recited functions of Limitation [1.o] occur only the “prerequisite elements” are satisfied, we are still preliminarily persuaded by Petitioner’s arguments that combined teachings of the prior art satisfy the claim elements as a mere combination of known elements combined according to their known functions with predictable results.

4. Alleged Reasons to Combine Teachings of the Prior Art

Petitioner includes additional discussions of the reasons to combine teachings of the prior art, stating that “[t]he Blumenberg-Bhumkar-Griffin Combination represents the predictable and expected result of applying in the context of Blumenberg’s web browser: [a] Bhumkar’s teachings on menu options for interfacing with a webpage preview window corresponding to a hyperlink; [b] Griffin’s teachings on multiple user-configurable touch duration thresholds; and [c] Griffin’s further teachings on triggering selective tactile feedback.” Pet. 12 (citing Ex. 1003 ¶ 67). Among other things, Petitioner contends combining the references would have involved nothing more than applying known solutions to known problems in the field of computer interfaces and applications to achieve predictable outcomes. Pet. 12–13.

Among other things, Petitioner provides the following “visual aid . . . demonstrat[ing] an exemplary display of a web browser embraced by the Blumenberg-Bhumkar Combination.” Pet. 13–14.



Petitioner’s “visual aid” depicts a touchscreen display with the word “MENU” and a caption “Menu Options for Interacting with Targeted Webpage Content” highlighted in blue and the words “http://www.palminfocenter.com Palm devices and Palm OS news, reviews, and more” and the caption “Link Information with Snippet of Targeted Webpage Content” highlighted in green. Pet. 14.

Petitioner additionally presents several “independent reasons” that purportedly support the combination of references. Pet. 14–18. Among other reasons, Petitioner contends providing menu options with displayed content was a ubiquitous feature in computer graphical user interfaces and

that applying Bhumkar's teachings of a menu for a webpage preview would predictably improve Blumenberg's browser from a usability standpoint. Pet. 14–15; *see also* Pet. 15–18 (presenting additional reasons for the proposed combination of teachings).

Petitioner also presents reasons that a POSITA “would have been motivated to incorporate Griffin's notion of applying selective tactile feedback in [the context of a web browser]” for several reasons. Pet. 19. Among other reasons, Petitioner contends Blumenberg incorporates by reference disclosures of a haptics mechanism configured to vibrate in response to certain touch events. Pet. 19–20 (citing Ex. 1004 ¶ 26, Ex. 1041 ¶¶ 160–163). Petitioner also presents reasons that a POSITA would allegedly have had reasons to combine Griffin's teachings of multiple user-configurable touch duration thresholds in the context of Blumenberg's web browser. Pet. 22. According to Petitioner, Blumenberg and Griffin both describe touch screen mobile devices in which different functionalities are triggered by touch duration thresholds. Pet. 22–23.

Patent Owner argues Petitioner's motivations “largely assume that the use of components in user interfaces is readily transferable to all mediums” and that a POSITA would have been aware that functionality of user interfaces in desktop browsers was quite different than the functionality of user interfaces in portable electronic devices. Prelim. Resp. 46. According to Patent Owner, a POSITA would not have found it obvious to apply Bhumkar's desktop functionality into Blumenberg's portable electronic device, given the small screen size, making the references' teachings incompatible. Prelim. Resp. 47–64. Further, pointing to details in Bhumkar's teachings such as its “preview window of a ‘fully functioning

web page” (Prelim. Resp. 47 (quoting Ex. 1005 ¶ 70), 49–60) and its “sharing functionality” (Prelim. Resp. 49–50, 56–63), Patent Owner contends that “any proposed modification that would perform a function different than Bhumkar’s full screen functionality is unsupported and contrary to the teachings of Bhumkar and the understanding of a POSITA” (Prelim. Resp. 52).

We preliminarily disagree with Patent Owner’s arguments, as a POSITA is not an automaton, and, as explained above, the preliminary record supports our understanding that a POSITA could implement relevant teachings from Bhumkar as known elements applied with predictable results. We similarly disagree with Patent Owner’s arguments that a POSITA would not have known how to implement a menu as taught by Bhumkar with Blumenberg’s link information because, according to Patent Owner, “Blumenberg’s link information is not an application.” Prelim. Resp. 54. As Patent Owner acknowledges, Blumenberg’s web browser is an example of an application (Prelim. Resp. 54–56), and we preliminarily agree with Petitioner that displaying a menu and other information with Blumenberg’s link information would have been well within the routine skill of a POSITA with ordinary creativity. Indeed, on the current record, we preliminarily determine a POSITA would understand “the specific design choices required in a UI as they apply to different kinds of UI objects and gestures.” Ex. 2001 ¶ 64.

H. Conclusion

Having considered the evidence currently of record and the parties’ arguments, we preliminarily determine Petitioner has shown a likelihood that it would prevail in its challenge to claim 1 as unpatentable in view of the

combined teachings of Blumenberg, Bhumkar, and Griffin. Accordingly, we institute *inter partes* review of all challenged claims on all grounds asserted in the Petition. 37 C.F.R. § 42.108(a); *see SAS Inst. v. Iancu*, 138 S. Ct. 1348, 1359–60 (2018).

V. ORDER

In view of the foregoing, it is hereby:

ORDERED that pursuant 35 U.S.C § 314(a), an *inter partes* review is hereby instituted as to claims 1–3, 21, 29–31, 42–44, 54, and 62–65 of the ’581 patent on all grounds set forth in the Petition; and,

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.

IPR2024-01090
Patent No. 10,725,581 B1

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