Trials@uspto.gov
571-272-7822

Paper: 18
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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

MICROSOFT CORPORATION, HP INC., DELL INC., DELL TECHNOLOGIES INC., ASUSTEK COMPUTER INC., AND ASUS GLOBAL PTE. LTD.,
Petitioner,

v.

LITL LLC,
Patent Owner.

IPR2024-00457
Patent 9,880,715 B2

Before GARTH D. BAER, BRIAN D. RANGE, and DAVID COTTA, *Administrative Patent Judges*.

RANGE, *Administrative Patent Judge*.

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

I. INTRODUCTION

Microsoft Corporation, HP Inc., Dell Inc., Dell Technologies Inc., ASUSTeK Computer Inc., and Asus Global Pte. Ltd. (collectively, "Petitioner") filed a Petition requesting *inter partes* review of claims 1–20 of U.S. Patent No. 9,880,715 B2 (Ex. 1001, "the '715 patent"). Paper 6 ("Pet."). LiTL LLC ("Patent Owner") filed a Preliminary Response. Paper 11 ("Prelim. Resp.").

Under 35 U.S.C. § 314(a), 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." Upon consideration of the Petition in view of the present record and for the reasons explained below, we determine that Petitioner has not shown a reasonable likelihood of prevailing with respect to at least one of the challenged claims. Accordingly, we do not institute an *inter partes* review on the grounds set forth in the Petition. *See* 37 C.F.R. § 42.108(a).

II. BACKGROUND

A. Real Parties in Interest

Petitioner identifies itself as the real party in interest. Pet. 93. Patent Owner argues that Lenovo is in privy with Petitioner Microsoft. Prelim. Resp. 7–13.

Patent Owner identifies itself as the real party in interest. Paper 9, 1.

B. Related Matters

The parties identify the following proceedings as involving the '715 patent: *LiTL LLC v. Dell Technologies Inc. and Dell Inc.*, No. 1:23-cv-00121-RGA (D. Del.); *LiTL LLC v. HP Inc.*, No. 1:23-cv-00120-RGA (D.

Del.); *LiTL LLC v. ASUSTeK Computer Inc., et al.*, No. 1:23-cv-00122-RGA (D. Del.); and *LiTL LLC v. Lenovo (United States), Inc. et al.*, 1:20-cv-00689 (D. Del.); *Lenovo (United States) Inc. v. LiTL LLC*, IPR2021-00786; and *Ex Parte* Reexamination 90/014,958. Pet. 93–94; Paper 9, 1–2.

Patent Owner additionally identifies the following proceedings that challenge patents related to the '715 patent: IPR2021-00681; IPR2021-00800; IPR2021-00822; IPR2021-00786; IPR2021-00821; IPR2024-00404; IPR2024-00480; IPR2024-00481; IPR2021-01011; IPR2024-00454; IPR2024-00455; IPR2024-00456; IPR2024-00458; and IPR2024-00532. Paper 9, 2. Patent Owner also indicates that patents related to the '715 patent were subject to the following reexamination proceedings: 90/015,035; 90/015,025; and 90/014,965. *Id.*

C. The '715 patent

The '715 patent is titled "System and Method for Streamlining User Interaction with Electronic Content." Ex. 1001, code (54). The challenged claims relate to "a graphical user interface that organizes interface elements into views of computer content for presentation to a user" and "an interface that is responsive to configurations of the device and activities performed by the user." *Id.*, code (57). The '715 patent explains that increased computing power enables computers to provide more and more features, but the myriad options may frustrate some users. *Id.* at 1:40–2:14. The '715 patent emphasizes the problem of "the inflexibility of the devices being used and their accompanying interfaces," and a problem generated by "feature packing" whereby "[t]ypical computer users simply can't take advantage of all the functionality offered. . . . [as t]he complexity of the interface (both hardware and software) hampers adoption [of, e.g., services and features

offered by their own computer or by online providers], as does the volume of features offered." *Id.* at 2:18–33; *see id.* at 15:19–30.

The solution the '715 patent proposes is a graphical user interface that improves the user's experience and the user's ability to interact with electronic content, by implementing different views. *Id.* at 2:45–58. For example, the '715 patent explains different views present different organizations of interface elements based upon device configuration and user activity:

> [A]spects and embodiments are directed to a graphical user interface that organizes interface elements into modes of content for presentation to a user. Different views of the modes of content are used to present the user with an interface that is responsive to configurations of the device and responsive to activity being performed by the user. Further the elements that comprise the graphical user interface are configured to present a summarized view of available actions and content, in order to simplify user interaction. The different views present different organizations of the interface elements and in some example display only certain ones of the modes of content in order to reduce the number of options a user must navigate to accomplish an objective.

Id. at 2:35–58.

The '715 patent further explains that its user interface comprises a plurality of views of representations of computer content and explains the views as follows:

> The user interface comprises a map based graphical user interface displayed on the computer system, the map based user interface comprising a plurality of views of a plurality of visual representations of computer content, wherein the computer content includes at least one of selectable digital content, selectable computer operations and passive digital content, and the plurality of visual representations of computer content rendered on the computer display, wherein the plurality of visual

> representations of computer content include an association to a first view of the plurality of views, the first view including the computer content, and wherein the each of the plurality of visual representations is responsive to focus and execution, wherein execution includes clicking on the visual representation, and an execution component comprising at least one computer hardware element configured to transition the computer system display between the plurality of views, wherein the execution component further comprises a view selector component configured to select one of the plurality of views for display on a computer system in response to a computer system configuration.

Id. at 2:63–3:25.

The computer system of the ’715 patent also describes different profiles to customize the graphical user interface in different modes, including: a closed mode (in which the display screen is disposed substantially against the base of the computer); a laptop mode (in which the portable computer has a conventional laptop appearance, achieved by, e.g., rotating the display about the longitudinal axis up to approximately 180 degrees from the closed mode); an easel mode (in which the base of the computer and its display component stand upright forming an inverted “V,” and the keyboard is concealed and not easily accessible); a flat mode (in which the computer’s base component and display component lay flat on a surface); and a frame mode (in which the keyboard is concealed and not easily accessible, and software and/or hardware protection may be provided for the keyboard to prevent keys from being pressed, or to prevent the computer from responding to pressed keys). *Id.* at 6:39–42, 6:49–56, 11:40–42, 24:37–63, 25:40–50.

Figure 17 of the ’715 patent, reproduced below, illustrates a portable computer in laptop mode, in which the keyboard is oriented to be accessible to the user. *Id.* at 13:29–32, 21:1–3. Figure 4 of the ’715 patent, reproduced

below, illustrates the portable computer in easel mode, in which the keyboard is concealed and not easily accessible. *Id.* at 12:57–58, 24:61–62, 26:60–65. And Figure 26 of the '715 patent, reproduced below, illustrates the portable computer configured into frame mode, in which the keyboard is concealed and not easily accessible. *Id.* at 13:55–58, 24:61–62.

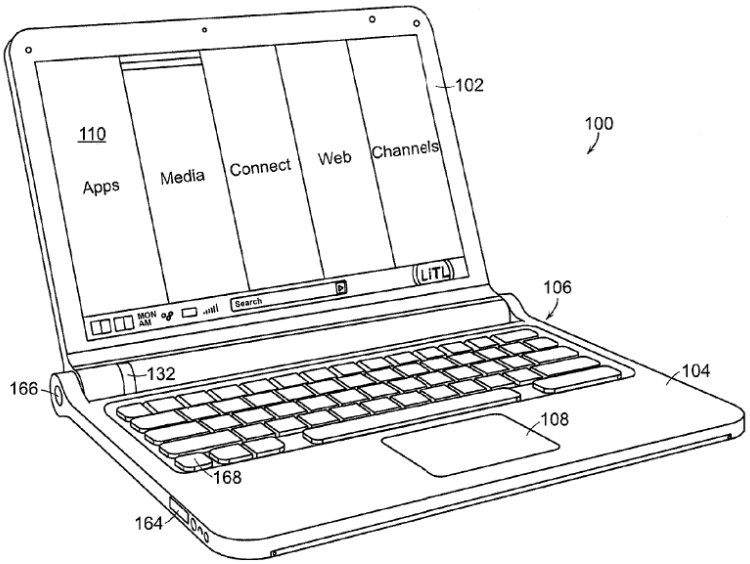

FIG. 17

Figure 17 illustrates a portable computer in laptop mode. *Id.* at 13:29–32.

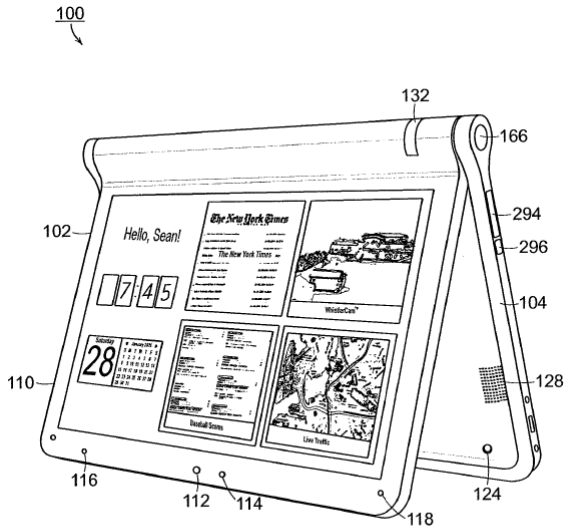

FIG. 4

Figure 4 illustrates a portable computer in easel mode. *Id.* at 12:57–58.

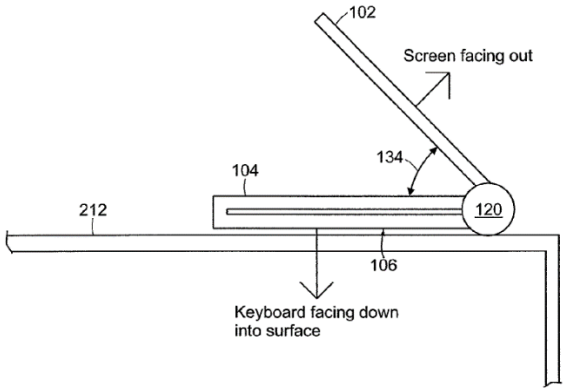

FIG. 26

Figure 26 illustrates a portable computer in frame mode. *Id.* at 13:55–58.

The ’715 patent’s computer assigns different views to the different modes (e.g., the laptop mode, the easel mode, the flat mode, and the frame mode) based on the mode’s configuration. *Id.* at 2:45–3:16, 31:18–26. For example, the computer may display a “home view” in laptop mode, and may

display a "Channel View" in easel mode as Figure 23 of the '715 patent shows. We reproduce Figure 23 below. *Id.* at 31:18–26.

FIG. 23

Figure 23 is a screen shot of a graphical user interface of the portable computer set in easel mode, displaying a channel view that may also display a plurality of modes of content. *Id.* at 13:47–49, 31:20–26.

As Figure 23 shows, the channel view includes selector display (2302) and visual representations of content or channel cards (2304–2310) available for selection. *Id.* at 31:18–26, 53:63–54:1. The visualization the channel view provides resembles and behaves like a rolodex. *Id.* at 54:7–10. In one example, a user invokes the channel view by operating/moving a physical scroll wheel (e.g., scroll wheel 132 illustrated in Figure 4, reproduced above). *Id.* at 53:60–64. As the user moves the scroll wheel, individual channels 2304–2310 appear to flip around the hinge of the device. *Id.* at 54:10–19. In response to a selection, the foremost channel card displayed is selected and displayed full screen. *Id.*

As further examples, the '715 patent explains that the computer may display a "channel page view" (illustrated in Figure 20A, reproduced

below), and a "channel full view" (illustrated in Figure 21, reproduced below).

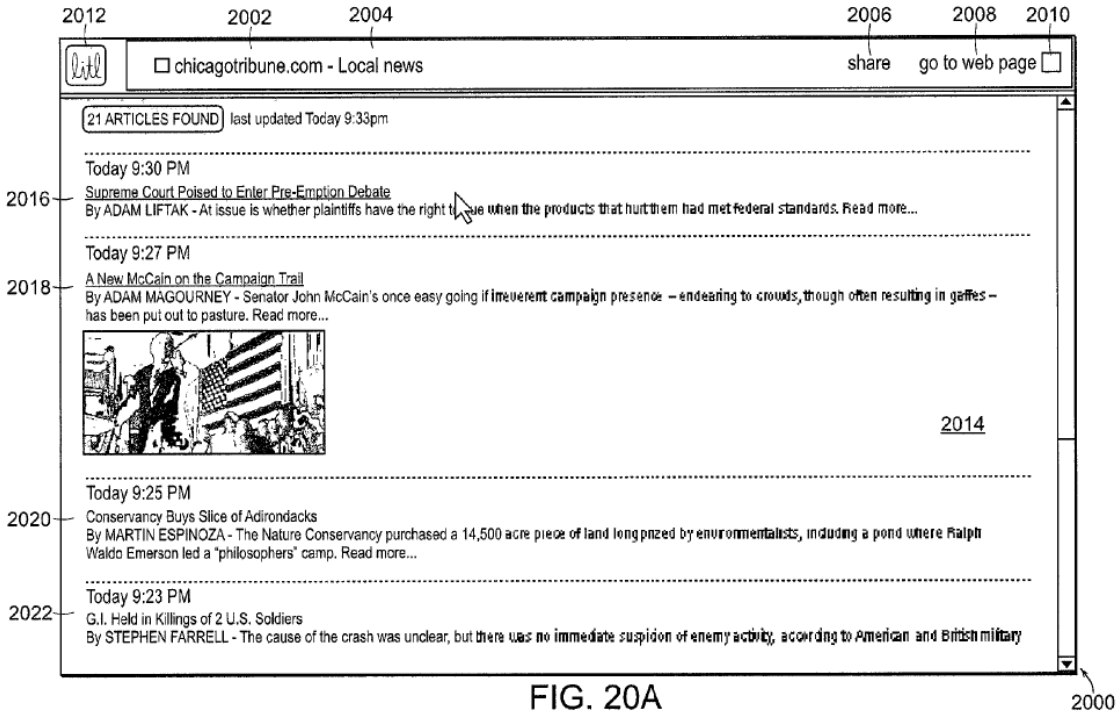

FIG. 20A

Figure 20A is a screen shot illustrating a graphical user interface showing a channel page view, which presents a unique view into content made available through a website, and provides a consistent framework for user interaction with rss style content. *Id.* at 13:38–40, 51:28–50.

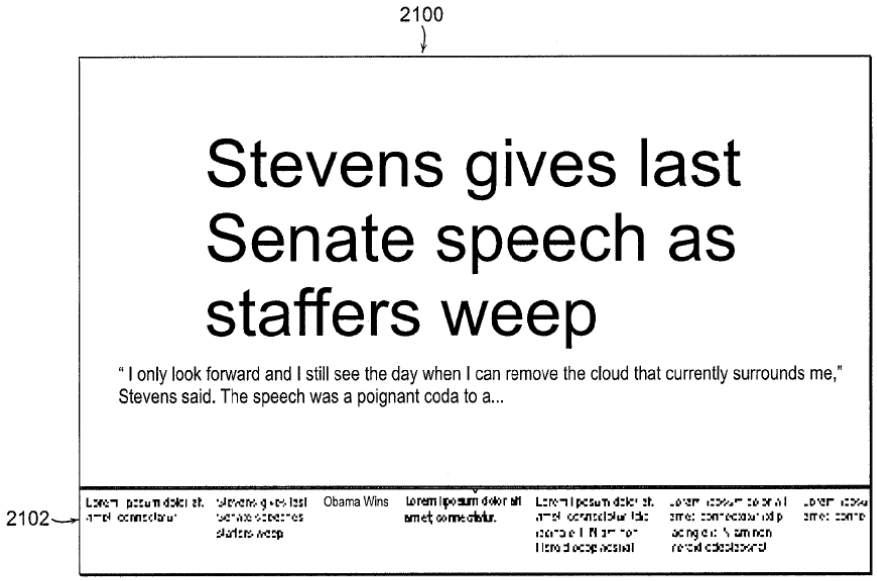

FIG. 21

Figure 21 is a screen shot illustrating a graphical user interface showing a channel full view, which includes displays configured to identify a source of an rss feed, and, in response to a user selection, displays a content menu permitting selection of any of the rss items.

Id. at 13:41–43, 52:33–52.

D. Illustrative Claims

Among challenged claims 1–20, claims 1, 17, and 20 are independent. Claims 2–16 and 19 depend from claim 1, and claim 18 depends from claim 17. Claim 1 is exemplary of the claimed subject matter of the ’715 patent and is reproduced as follows, with added bracketed identifiers to claim elements.

> 1. [1pre] A customized user interface to display computer content on a display component of a computer system including a keyboard, the user interface comprising:
>
> > [1a] at least one processor operatively connected to a memory of the computer system;

> [1b] a graphical user interface, executing on the at least one processor, configured to display the computer content on the display component of the computer system, the graphical user interface configured to:
>
> > [1c] display a plurality of views of a plurality of visual representations of computer content, wherein the computer content includes at least one of selectable digital content, selectable computer operations and passive digital content;
>
> [1d] an execution component, executing on the at least one processor, configured to:
>
> > [1e] detect a current computer system configuration from at least a first computer system configuration where the keyboard is operable to receive input from an operator of the computer system to control the computer system and a second computer system configuration where the keyboard is inoperable to receive input from the operator of the computer system to control the computer system;
> >
> > [1f] select one of the plurality of views for display on the computer system in response to the detected current computer system configuration; and
> >
> > transition the display component to the selected one of the plurality of views.

Ex. 1001, 70:63–71:24; *see also* Pet. at xi (annotating claim 1 with the same identifiers).

E. Asserted Grounds of Unpatentability

Petitioner, supported by the declaration of Dr. Henry Houh (Ex. 1003), asserts the following grounds of unpatentability (Pet. 3):[1]

[1] The relevant sections of the Leahy-Smith America Invents Act ("AIA"), Pub. L. No. 112–29, took effect on March 16, 2013. The '715 patent claims priority to applications filed before this date. *See* Ex. 1001, code (63). For the purposes of this Decision, pre-AIA statutes apply.

Claims Challenged	35 U.S.C. §	References/Basis
1, 19, 20	103(a)	Pröll[2], Martinez[3]
2, 15–18	103(a)	Pröll, Martinez, Chandhri[4]
3–14	103(a)	Pröll, Martinez, Preppernau[5]
1, 3–14, 19, 20	103(a)	Pröll, Preppernau
2, 15–18	103(a)	Pröll, Preppernau, Chandhri

III. ANALYSIS

A. Legal Standard

A patent claim is unpatentable under 35 U.S.C. § 103(a) if the differences between the claimed subject matter and "the prior art are such that the subject matter, as a whole, would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains." *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved on the basis of underlying factual determinations including: (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of ordinary skill in the art; and (4) when in evidence, objective evidence of nonobviousness.[6] *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

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[2] Pröll, DE 10331185 A1, publ. Feb. 3, 2005 (Ex. 1006 ("Pröll")).

[3] Martinez, et al., US 6,137,468, issued Oct. 24, 2000 (Ex. 1007 ("Martinez").

[4] Chandhri, US 2008/0062141 A1, pub. Mar. 13, 2008 (Ex. 1011 ("Chandhri")).

[5] Preppernau et al., Windows Vista Step by Step, 2007 (Ex. 1008 ("Preppernau")).

[6] Objective indicia of non-obviousness are not at issue for this decision.

B. Level of Ordinary Skill in the Art

In order to determine whether an invention would have been obvious at the time the application was filed, we consider the level of ordinary skill in the pertinent art at the time of the invention. *Graham*, 383 U.S. at 17. The resolution of this question is important because it allows us to "maintain[] objectivity in the obviousness inquiry." *Ryko Mfg. Co. v. Nu–Star, Inc*., 950 F.2d 714, 718 (Fed. Cir. 1991). In assessing 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) (quotation omitted). Generally, it is easier to establish obviousness under a higher level of ordinary skill in the art. *Innovention Toys, LLC v. MGA Entm't, Inc*., 637 F.3d 1314, 1323 (Fed. Cir. 2011) ("A less sophisticated level of skill generally favors a determination of nonobviousness . . . while a higher level of skill favors the reverse.").

> Petitioner asserts that a person of ordinary skill in the art (POSITA), would have had a bachelor's degree in electrical engineering, computer engineering, computer science, or a similar field, plus two years of work experience in designing GUIs for computing devices. Ex-1003, ¶ 21. More education could substitute for experience and vice versa. *Id.*

Pet. 15. Patent Owner does not dispute the level of ordinary skill in the art. *See* Prelim. Resp.

For purposes of this Decision, we adopt Petitioner's proposal as reasonable and consistent with the level of skill reflected in the prior art and

the ’715 patent. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001) (the prior art may reflect an appropriate level of skill in the art).

C. Claim Construction

In an *inter partes* review proceeding based on a petition filed on or after November 13, 2018, a patent claim shall be construed using the same claim construction standard that would be used to construe the claim in a civil action under 35 U.S.C. § 282(b). 37 C.F.R. § 42.100(b) (as amended Oct. 11, 2018). This rule adopts the same claim construction standard used by Article III federal courts, which follow *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc), and its progeny. Under this standard, 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. *See Phillips*, 415 F.3d at 1312–13.

Petitioner argues that in IPR2021-00786, also involving the ’715 patent, the Board construed “plurality of views of a plurality of visual representations of computer content” as “referring to a plurality of ways of organizing visual representations of computer content.” Pet. 15–16 (citing IPR2021-00786, Paper 6, 13–16). Petitioner further notes that “the Board found [this] limitation ‘is distinct from merely providing a plurality of ways of displaying content (by, for example, changing display orientation, color, resolution, etc.).” *Id.* Petitioner further argues that during a reexamination proceeding of the ’715 patent, “the Examiner also clarified that the ‘plurality of views’ limitation does not encompass merely changing to entirely different content.” *Id.* (citing Ex. 1005 (90/014,958 Ex Parte Reexamination)). Petitioner’s witness, Dr. Houh, applied this construction

when forming opinions and Petitioner states that the "Challenged Claims are unpatentable under the Board's construction of "plurality of views." Ex. 1003 ¶¶ 53–54; Pet. 16.

Petitioner also argues claim terms "display component," "execution component," and "storage component" should be interpreted as means-plus-function limitations under 35 U.S.C. § 112 ¶ 6.

At this stage of the proceeding, Patent Owner does not oppose Petitioner's proposed constructions. Prelim. Resp. 34.

For this decision, we again construe "plurality of views of a plurality of visual representations of computer content" as "referring to a plurality of ways of organizing visual representations of computer content." We again note that this limitation is distinct from merely providing a plurality of ways of displaying content (by, for example, changing display orientation, color, resolution, etc.). Petitioner assumes this construction for the Petition, and Patent Owner assumes this construction for Patent Owner's Preliminary Response. Moreover, the construction is well supported by the '715 patent's claims and specification for reasons similar to those stated in the prior decision cited by Petitioner. IPR2021-00786, Paper 6, 13–16 (construing this term for the '715 patent).

For this decision, we do not discern a need to construe explicitly any other claim language because doing so would have no effect on our analysis below and will not assist in resolving the present controversy between the parties.[7] *See 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

[7] Our decision is the same regardless of whether or not the term "execution component" is means-plus-function under 35 U.S.C. § 112 ¶ 6.

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. Time Bar under 35 U.S.C. § 315(b)

Pursuant to 35 U.S.C. § 315(b), "[a]n inter partes review may not be instituted if the petition requesting the proceeding is filed more than 1 year after the date on which the petitioner, real party in interest, or privy of the petitioner is served with a complaint alleging infringement of the patent." Patent Owner argues that the Petition should be dismissed because it is untimely. Prelim. Resp. 2–17. In particular, Patent Owner argues that Petitioner Microsoft is in privity with Lenovo, who Patent Owner asserts is time-barred under 35 U.S.C. § 315(b). *Id.*

Patent Owner advances several theories supporting its privity arguments, including that Microsoft and Lenovo have a business relationship governed by Microsoft's Global Partner Agreement, Microsoft was contractually obligated to indemnify Lenovo, and Microsoft and Lenovo entered into a common interest agreement. *Id.*

The parties agreed that resolution of this time bar issue would be resolved in the same manner as in IPR2024-00456. In particular, the parties stipulated:

> The parties stipulate with respect to the privity time bar issue that the facts and issues in IPR2024-00457 are the same as in IPR2024-00456, so that any decision the Board reaches resolving the privity time bar issue in IPR2024-00456 will apply and resolve the privity time bar issue in IPR2024-00457 in the same manner.

Notice of Stipulation, Paper 14, 1.

In the decision on institution for IPR2024-00456, the Board

determined that "Lenovo is not a privity of Microsoft [in this context] and the Petition is not time-barred under § 315(b)." IPR2024-00456, Paper 22, 10 (July 31, 2024). Thus, pursuant to the parties' stipulation, the instant petition is also not time-barred.

E. Discretionary Denial under 35 U.S.C. § 325(d)

Pursuant to 35 U.S.C. § 325(d), in determining whether to institute an inter partes review, "the Director may take into account whether, and reject the petition or request because, the same or substantially the same prior art or arguments previously were presented to the Office." *See also Advanced Bionics, LLC v. MED-EL Elektromedizinische Geräte GmbH*, IPR2019-01469, Paper 6 at 8 (PTAB Feb. 13, 2020) (precedential) (setting forth two-part frame work for assessing discretionary denial under 35 U.S.C. § 325(d)); *Becton, Dickinson & Co. v. B. Braun Melsungen AG*, IPR2017-01586, Paper 8 at 17–18 (PTAB Dec. 15, 2017) (precedential as to Section III.C.5, first paragraph) (listing factors to consider in evaluating the applicability of § 325(d)).

Below, we explain that we deny institution based on the merits: Petitioner has not shown, with respect to at least one of the challenged claims, a reasonable likelihood of prevailing at trial. In the interest of judicial efficiency, we therefore do not need to consider discretionary denial. *Cf. Realtime Data, LLC v. Iancu*, 912 F.3d 1368, 1375 (Fed. Cir. 2019) (explaining that the Board is not required to reach issues unnecessary to "resolve the controversy"); *see also, e.g., Aylo Freesites Ltd. v. Dish Techs. LLC,* IPR 2024-00512, Paper 12, 12, n. 3 (declining to reach the 35 U.S.C. § 325(d) issues when denying based on 35 U.S.C. § 314(a)).

F. Overview of the Asserted Art

1. Pröll (Ex. 1006)

Pröll is a certified English translation of German patent application DE 10331185 A1, titled "Mobile data processing device." Ex. 1006, code (54). Pröll describes connecting a mobile data processing device to a docking station. *Id.* ¶ 10.

Fig. 1 of Pröll, reproduced below, illustrates a mobile computer system.

Fig. 1

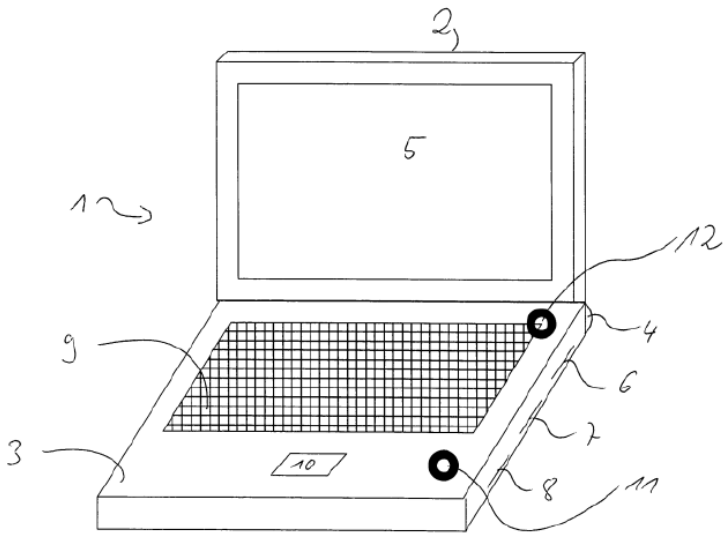

Fig. 1

Fig. 1 shows a mobile data processing device 1. *Id.* ¶ 33.

Fig. 1 depicts a first housing half 2 arranged to rotate about a hinge 4 in reference to a second housing half 3. *Id.* Hinge 4 is adapted such that the housing halves 2 and 3 can be swiveled in reference to each other by almost 360 degrees. *Id.*

According to Pröll, a switch may be arranged in hinge 4 which can detect that the first housing half 2 is swiveled in reference to the second housing half 3 by more than 270 degrees. *Id.* ¶ 49. Fig. 9 of Pröll, reproduced below, shows the mobile data processing device in a swiveled state. *Id.* ¶ 58.

FIG. 9

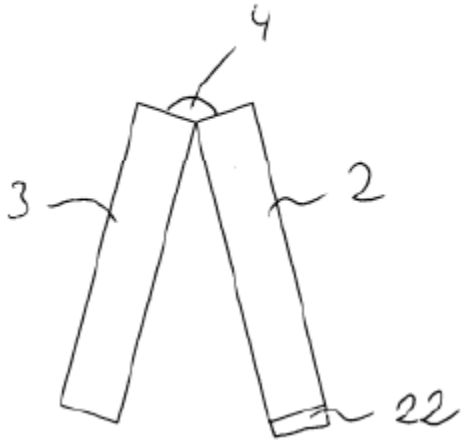

Fig. 9 shows a mobile data processing device 1 in a state where both housing halves are swiveled at an angle of more than 270 degrees. *Id.* ¶ 58.

When the first and second housing halves are swiveled at an angle greater than 270 degrees, the display can be rotated by 180 degrees when the first housing half is in a swiveled position. *Id.* ¶ 49.

2. Martinez (Ex. 1007)

Martinez is titled "Method and Apparatus for Altering a Display in Response to Changes in Attitude Relative to a Plane." Ex. 1007, code (54). Martinez describes altering the display of an object on a display device in response to detecting changes in the attitude of the device. *Id.* at code (57). Martinez also teaches that its device may detect a shake (i.e., shaking the device containing a sensor to the left and right relative to the user) and, if a

shake is detected, arrange windows in a tile or cascading function. *Id.* at 6:5–37.

3. Chandhri (Ex. 1011)

Chandhri is titled "Media Player with Imaged Based Browsing." Ex. 1011, code (54). Chandhri describes improving the way media is played, sorted, modified, stored, and cataloged on a portable media player. *Id.* at code (57).

4. Preppernau (Ex. 1008)

Preppernau is a Windows Vista user guide titled Step by Step. *See* Ex. 1008. Preppernau describes how to use and modify a taskbar to allow displaying windows on a computer. *Id.* at 46–47.

G. Unpatentability Grounds

1. Unpatentability over Pröll and Martinez (Ground 1)

Petitioner asserts that claims 1, 19, and 20 are unpatentable under 35 U.S.C. § 103(a) as obvious over Pröll in view of Martinez, citing the Declaration of Dr. Houh for support. Pet. 25–38 (citing Ex. 1003 ¶¶ 64–94). Below, we address independent claims 1 and 20, and we then address the dependent claim 19.

a) Claim 1

Claim 1 recites, for example, at elements [1d] to [1f], "an execution component, executing on the at least one processor, configured to" perform several steps. Ex. 1001, 71:10–11. The execution component must "detect a current computer system configuration" based upon physical configuration and keyboard operability as follows:

> detect a current computer system configuration from at least a first computer system configuration where the keyboard is operable to

> receive input from an operator of the computer system to control the computer system and a second computer system configuration where the keyboard is inoperable to receive input from the operator of the computer system to control the computer system.

Id. at 71:12–19. The execution component must then "select one of the plurality of views for display on the computer system *in response to the detected current computer system configuration.*" *Id.* at 71:20–22. Finally, the execution component must "transition the display component to the selected one of the plurality of views. *Id.* at 71:23–24,

Petitioner argues that these recitations would have been obvious over Pröll in view of Martinez. Pet. 30–37. Petitioner's argument is based on the combined teachings of Pröll and Martinez, but we first address the relevant teachings of these two references individually.

Petitioner argues that Pröll teaches a device with a pivoting hinge such that the keyboard is operable in one configuration and not operable in the other configuration. *Id.* at 20–22, 27, 30–34. Petitioner argues that Pröll teaches "adjusting the text and graphics on its GUI in a plurality of ways" but admits Pröll "is not explicit about the organization of content on its GUI." *Id.* at 27. Patent Owner agrees with Petitioner that Pröll teaches a device with different configurations. Prelim. Resp. 35–36. Patent Owner argues that Pröll teaches rotating displayed content 180° based upon configuration but contends that such rotation is not "selecting one of a plurality of views" based on the Petition's claim construction. *Id.* at 36 (citing Ex. 1006 ¶ 49 (Pröll teaching inversion of displayed content); *see also* Pet. 27, 79. We agree with Patent Owner that Pröll teaches adjusting displayed content after detecting configuration but does not teach, for example, "selecting one of a plurality of views . . . in response to the

detected current computer system configuration" because merely inverting displayed content is not a way of organizing a visual content within the scope of this claim recitation as we have construed it. *See* Ex. 1006 ¶ 49; *see also* Section III(C), *supra*.

Petitioner argues that Martinez teaches a system similar to Pröll. Pet. 22–25. Petitioner argues that Martinez teaches that the user may "shake" the Martinez device to change views. Pet. 19–21. Upon detecting the user shaking the Martinez device, Martinez may rearrange windows on the display. *Id.* at 19 (citing Ex. 1007, 6:5–37). For example, the display's windows might change from tiled to cascading when the user shakes the device. *Id.* Patent Owner agrees that Martinez teaches rearranging windows in response to a user manipulation—i.e., shake. Prelim. Resp. 36.

Patent Owner argues that neither reference alone "discloses selecting among a plurality of views in response to the computer's detected current configuration." Prelim. Resp. 33. We agree. As we explain above, Pröll detects a current configuration and rotates a display, but this is not the same as selecting among a plurality of views under the claim construction we explain above. *See* Section III(C), *supra*. Martinez teaches selecting among a plurality of views, but such selection is based on a user selecting a view by shaking the device. *See, e.g.*, Ex. 1007, 6:1–7:16.

Petitioner relies on the testimony of Dr. Houh to argue that selecting a view based on configuration nonetheless would have been obvious based on the references' combined teachings. *See, e.g.*, Pet. 27–35 (citing Ex. 1003 ¶¶ 69–85). Petitioner argues that a person having ordinary skill in the art would have modified Pröll "such that Pröll's GUI displays a different organization of content when its keyboard is operable than when its

keyboard is inoperable." Pet. 27 (citing, e.g., Ex. 1003 ¶¶ 69–70). In particular, Petitioner argues that a person having ordinary skill in the art would have triggered Martinez's view change (for example, going from tiled to cascading windows) "based on Pröll's switch indicating rotation of its two halves by more or less than 180°." *Id.* at 28. Petitioner argues that, in addition to rotating Pröll's display based on configuration, a person having ordinary skill in the art "would have been motivated to switch between views based on Martinez's teachings when triggered in other ways, such as based on Pröll's switch indicating rotation of Pröll's two halves by more or less than 180°." *Id.* at 28 (citing Ex. 1003 ¶ 75–77). Petitioner argues that the combination would have advantages including allowing the system to be more effectively used in different mobile environments. *Id.* at 28–29 (citing Ex. 1003 ¶¶ 76–77).

Precedent does not align with Petitioner's argument. The Court of Appeals for the Federal Circuit has refused to permit "common sense" to fill in a missing claim limitation except where the missing limitation is "unusually simple and the technology particularly straightforward." *Arendi S.A.R.L. v. Apple Inc.*, 832 F.3d 1355, 1362 (Fed. Cir. 2016). For example, in *Arendi*, the Federal Circuit reversed the Board's determination that searching for duplicate telephone numbers prior to adding a number to an address book would have been obvious based on common sense. *Id.* at 1363. The court emphasized that the disputed term was central to representative claim 1. *Id.* The court also emphasized that the function of searching for duplicate telephone numbers in a database would work differently than the function of searching for duplicate name entries. *Id.* at 1366. The court further counsels that a missing claim limitation cannot be determined

obvious based on "conclusory statements and unspecific expert testimony." *Id.*

The court's decision in *DSS Tech. Mgmt., Inc. v. Apple Inc.*, 885 F.3d 1367, 1374 (Fed. Cir. 2018), is also illustrative. In that case, the Board determined that a person having ordinary skill in the art would have been motivated to modify the prior art base station transmitter so that it is "energized in low duty cycle RF bursts." *Id.* at 1374. The prior art reference, Natarajan, taught reducing power consumption in mobile units but was silent regarding doing the same for the base station transmitter. *Id.* at 1373. The court held that the limitation at issue was not "unusually simple" and that the missing limitation (a server energized in low duty cycle RF bursts) "plays a major role in the subject matter claimed." *Id.* at 1374–1375. The court further held that, to the extent the Board relied on the petitioner's expert testimony of Dr. Hu, the testimony was "conclusory and unspecific" and did not adequately address differences between the base station and transmitters. *Id.* at 1376–1377.

Here, claim 1 requires an execution component configured to, for example, "select one of the plurality of views for display on the computer system in response to the detected current computer system configuration." Ex. 1001, 71:20–22. As in *Arendi* and *DSS*, this functionality plays a major role in the subject matter claimed; this selection as at the heart of the '715 patent. *See, e.g.,* Ex. 1001, 2:45–58 (explaining that patent is directed to providing different views). We also determine that the limitation is not "unusually simple." The cited art understood that display orientation could be modified based on a change in configuration (Pröll) and understood that a view could be selected based on a user's active choice (the user shaking the

device as in Martinez[8]), but the cited art did not recognize selecting a view based on a change of configuration. Prelim. Resp. 35–37. The evidence of record does not indicate that recognition of this function would be "unusually simple."

The Petition's reliance on Dr. Houh's testimony does not adequately close the gap between claim 1 and the teachings of the cited references.[9] Dr. Houh's testimony is supported and persuasive in some respects. For example, Dr. Houh persuasively testifies that Pröll teaches adjusting its display based upon change of configuration. Ex. 1003 ¶ 70. Dr. Houh also persuasively testifies that cascading, tiling, and rearranging icons as in Martinez were well-known arrangements. *Id.* ¶¶ 72–74.

In other respects, however, Dr. Houh's testimony is speculative or does not adequately address the issue at hand. For example, Dr. Houh testifies that a person having ordinary skill in the art would have understood that "arranging the display to correspond to a new hardware configuration would ensure that the arrangement is best suited to the user's needs" and "would have understood that organizing content to account for the manner in which a user interacts with the computer would increase the computer's usefulness to the user." Id. ¶ 65. While these opinions are supported, they do

[8] As we explain when addressing Petitioner's fourth ground, Preppernau also teaches selecting a view based on a user's active choice. *See, e.g.*, Ex. 1008, 46 (explaining that a user may select a view by "[c]licking").

[9] We note that the Petition must include a detailed explanation of the significance of any evidence. 37 C.F.R. § 42.22(a)(2). Here, we consider Dr. Houh's declaration in some detail, but to the extent Dr. Houh's testimony is not explained in the Petition, it cannot support institution. 37 C.F.R. § 42.6(a)(3); Prelim. Resp. 49–50.

not establish that a person having skill in the art would have recognized as obvious that the Pröll device could have been modified to select a view upon change in configuration (without further user intervention). Rather, a gap remains between a person of ordinary skill in the art recognizing that reorganization can be useful and the '715 patent's recognition that reorganization should occur based on the device detecting a change in configuration.

When Dr. Houh testifies that a person having skill in the art would have been motivated to trigger Martinez's views based on Pröll's switch indicating a change in device configuration, the opinion lacks support. Id. ¶ 76. Dr. Houh characterizes the combination as "simply apply[ing] the known technique of rearranging the display in response to sensor data to improve the usability of Pröll." *Id*. But Martinez's use of sensor data is sensing a shake, and the shake is a manual user input indicating the user's desire to select a different view; Martinez does not suggest automatically changing views. Claim 1 does not reflect mere application of Martinez's technique.

Dr. Houh also persuasively testifies that it would have been within the skill of a person having ordinary skill in the art "to program Pröll's switch to rearrange windows as Martinez teaches" (*id.* ¶¶ 76–77; *see also id.* ¶ 85) but this falls short of establishing that a person having ordinary skill in the art would have had reason to make this modification. Prelim. Resp. 33 (citing *Pers. Web Techs., LLC v. Apple, Inc.*, 848 F.3d 987, 993–994 (Fed. Cir. 2017) ("[T]hat reasoning seems to say no more than that a skilled artisan, once presented with the two references, would have understood that they *could be* combined," which "is not enough: it does not imply a motivation to

pick out those two references and combine them to arrive at the claimed invention." (emphasis in original))).

Dr. Houh's testimony is sufficient to establish that, as Patent Owner acknowledges, a person having ordinary skill in the art would have been motivated to modify Pröll by adding "Martinez's tile and cascading arrangements of windows" and allowing selecting between tiling and cascading "based on detecting a shake as Martinez teaches" while also "using Pröll's switch to orient the displayed content to ensure it is right-side up as Pröll teaches." Prelim. Resp. 43–44. But this modification would not meet the challenged claims, and as we explain above, Petitioner does not adequately establish that a person having ordinary skill in the art would have reached a system that selects a view in response to detected current computer system configuration (as opposed to selecting a view based on user input such as shaking).

Based on the above, Petitioner has not adequately established that a person having ordinary skill in the art would have combined the teachings of Pröll and Martinez to reach the recitations of claim 1. Thus, Petitioner has not established a reasonable likelihood of establishing that claim 1 is unpatentable based on Pröll and Martinez.

b) Claim 20

Independent claim 20 is similar to claim 1 in relevant respects. Claim 20 requires an execution component configured to "detect a current system configuration from at least a first computer system configuration where the keyboard is positioned to receive input … and a second computer system configuration where the keyboard is not positioned to receive input." Ex. 1001, 74:7–13. Claim 20 also requires that the execution component be

configured to "select one of the plurality of views for display on the computer system in response to the detected current computer system configuration. *Id.* at 74:14–17.

Petitioner's arguments as to claim 20 are the same as for claim 1. Pet. 37–38 (referring back to arguments for claim 1). For the reasons we provide as to claim 1, Petitioner has not established a reasonable likelihood of establishing that claim 20 is unpatentable based on Pröll and Martinez.

c) Claim 19

Claim 19 depends from claim 1. Ex. 1001, 73:6. The Petition does not address these claims in a manner that would cure deficiencies with regard to claim 1. Pet. 35–36. Thus, Petitioner has not established a reasonable likelihood of establishing that claim 19 is unpatentable based on Pröll and Martinez.

2. Unpatentability over Pröll, Martinez, and Chandhri (Ground 2)

Petitioner asserts that claims 2 and 15–18 are unpatentable under 35 U.S.C. § 103(a) as obvious over Pröll, Martinez, and Chandhri. Pet. 38–47. Below, we address independent claim 17 and then address dependent claims 2, 15, 16, and 18 collectively.

a) Claim 17

Independent claim 17 is similar to claim 1 in relevant respects. Claim 17 requires an execution component configured to identify system configuration "based on sensor input indicating a position of the display component." Ex. 1001, 72:47–54. Claim 17 also requires that the execution component be configured to "select, responsive to the sensor input, a first content view" and to "transition, automatically in response to the sensor

input, the display component between at least the first content view … and a second content view." *Id.* at 72:55–61.

The Petition relies on Chandhri as teaching, for example, a home view and music option. Pet. 40–41. With respect to selecting a view in response to sensor input, Petitioner's arguments as to claim 17 are the same as for claim 1. *Id.* at 45–47 (referring back to arguments for claim 1). For the same reasons we provide as to claim 1, Petitioner has not established a reasonable likelihood of establishing that claim 17 is unpatentable based on Pröll, Martinez, and Chandhri.

b. Claims 2, 15, 16, and 18

Claims 2, 15, 16, and 18 each depend from claim 1 or claim 17. Ex. 1001, 71:25–29, 72:27–24, 73:3–5. The Petition does not address these claims in a manner that would cure deficiencies with regard to claims 1 or 17. Pet. 39–47. Thus, Petitioner has not established a reasonable likelihood of establishing that claim 2, 15, 16, or 18 is unpatentable based on Pröll, Martinez, and Chandhri.

3. Unpatentability over Pröll, Martinez, and Preppernau (Ground 3)

Petitioner asserts claims 3–14 are unpatentable under 35 U.S.C. § 103(a) as obvious over Pröll in view of Martinez and Preppernau. Pet. 47–76. Claims 3–14 each depend, directly or indirectly, from claim 1. Ex. 1001, 71:30–72:26. The Petition does not address these claims in a manner that would cure deficiencies with regard to claim 1. Pet. 47–76. Thus, Petitioner has not established a reasonable likelihood of establishing that any of claims 3–14 is unpatentable based on Pröll, Martinez, and Preppernau.

4. Unpatentability over Pröll and Preppernau (Ground 4)

Petitioner asserts claims 1, 3–14, 19, and 20 are unpatentable under 35 U.S.C. § 103(a) as obvious over Pröll in view of Preppernau. Pet. 76–91. Below, we address independent claims 1 and 20 and then address dependent claims collectively.

a) Claim 1

The key recitations for claim 1 are the same as those we discussed when addressing Ground 1. Petitioner argues that these recitations would have been obvious over Pröll in view of Preppernau. Pet. 78–84. We address the relevant teachings of Pröll above, and, here, we address the relevant teachings of Preppernau.

Petitioner argues that Preppernau is a Microsoft publication that provides step-by-step directions for Windows Vista. Pet. 47 (citing Ex. 1015, Title, xi). Petitioner argues that Preppernau teaches a taskbar button that a user may interact with (via clicking) to rearrange how windows are displayed. *Id.* at 80 (citing Ex. 1015, 46–47). Petitioner argues that Preppernau teaches many ways of organizing files and content. *Id.* at 80. Patent Owner does not disagree but argues that "Petitioners identify no teaching in Preppernau that Vista selects a view in response to a detected computer configuration." Prelim. Resp. 70.

Petitioner argues that a person having ordinary skill in the art would have modified Pröll with the teachings of Preppernau. Pet. 48–49, 76–78. Petitioner argues that a person having ordinary skill in the art would have been motivated to add the Windows Vista operating system from Preppernau to the Pröll device. Pet. 76–77 (citing Ex. 1003 ¶¶ 162–164). Petitioner

argues that a person having ordinary skill in the art would have "found it obvious to select one of the plurality of views taught in Preppernau and display that view on Pröll's display component based on the detected configuration of Pröll's device." *Id.* at 82 (citing Ex. 1003 ¶¶ 176–77). Petitioner, however, does not adequately explain why a person having skill in the art would have been motivated to make this modification. Instead, the Petition argues that Preppernau teaches that the user may select different views and that allowing Pröll's device to change views would increase usability. *Id.* at 83–84.

Patent Owner does not dispute that a person having ordinary skill in the art would have been motivated to install Windows Vista on Pröll's device. Prelim. Resp. 70. But Patent Owner disputes that this would result in any of the challenged claims. *Id.* Similar to its arguments against the Pröll and Martinez combination, Patent Owner argues that neither Pröll nor Preppernau teach selecting a window arrangement (allegedly a view) in response to detecting a current computer system configuration. Prelim. Resp. 70–72 (addressing Preppernau); *see also id.* at 43 (addressing Pröll). We again agree. As we explained above, Pröll detects a current configuration and rotates a display, but this is not the same as selecting among a plurality of views under the claim construction we explain above. *See* Section III(G)(1), *supra*. Preppernau teaches selecting a window arrangement in response to a manual user selection from a taskbar. Prelim. Resp. 70; 73–74; *see also* Ex. 1008, 46–47 (referring to "[c]licking" to activate different windows). Petitioner relies on the testimony of Dr. Houh to argue that selecting a view based on configuration would have been obvious based on

the references' combined teachings. *See, e.g.*, Pet. 77–78, 82–84 (citing Ex. 1003 ¶¶ 162–164, 172–177).

We again note that claim 1 requires an execution component configured to, for example, "select one of the plurality of views for display on the computer system in response to the detected current computer system configuration." Ex. 1001, 71:20–22. As in *Arendi* and *DSS*, this functionality plays a major role in the subject matter claimed. *See* Section III(G)(1)(a), *supra*. We also do not determine that the limitation is "unusually simple." *Id.* The cited art understood that a display could be modified based on a change in configuration (Pröll) and understood that a window configuration could be selected based on a user's active choice (the user selecting window configuration with a click as in Preppernau), but the cited art did not recognize automatically selecting a view based on a change of configuration. Prelim. Resp. 70. Nothing in the present record suggests that recognition of this feature would be "unusually simple."

The Petition's reliance on Dr. Houh's testimony does not adequately close this gap.[10] Dr. Houh's testimony is supported and persuasive only in some respects. For example, Dr. Houh persuasively testifies that a person having ordinary skill in the art would have had reason to modify Pröll to add the ability to change GUI (graphical user interface) elements as taught by Preppernau. Ex. 1003 ¶¶ 162–164. Dr. Houh also testifies that a person having ordinary skill in the art would have been motivated to look to Preppernau "for ways to display different organizations of content." *Id.* ¶

[10] Again, to the extent Houh's testimony is not explained in the Petition, it cannot support institution.

168; *see also id.* at ¶¶ 169–171. This testimony, however, does not establish a reason to select a view *based on change in configuration*.

Dr. Houh states that a person having ordinary skill in the art "would have been motivated to combine Pröll with Preppernau such that Pröll's GUI [graphic user interface] displays a different organization of content when its housing halves are arranged in various configurations" and cites to prior sections of his declaration for support. *Id.* ¶ 176. This statement, however, is conclusory, and the cited sections of Dr. Houh's testimony (*id.* at ¶¶ 162–164) do not adequately address, with evidentiary support or reasoning, why a person having ordinary skill in the art would have found this functionality obvious. 37 C.F.R. § 42.65(a) ("Expert testimony that does not disclose the underlying facts or data on which the opinion is based is entitled to little or no weight."). Instead, Dr. Houh testifies, for example, that Preppernau's teachings "would have *allowed users to optimize* one of the GUIs rendered by Pröll's physical configurations according to the rearrangement of windows and icons that Preppernau teaches." *Id.* ¶ 172. But user optimization is different than automatic optimization based upon detecting change in configuration. Other portions of Dr. Houh's testimony are similar. *Id.* ¶¶ 162–164 (explaining why a person having ordinary skill in the art would have incorporated Preppernau's ability to rearrange windows and icons into Pröll but not adequately addressing why a person having ordinary skill in the art would have reached selecting a view based on detecting a configuration), 177 (same).

Dr. Houh's testimony is sufficient to establish that, as Patent Owner acknowledges, a person having ordinary skill in the art would have been motivated to modify Pröll by adding Preppernau's ability to rearrange

windows and icons based on user selection. But this modification would not meet the challenged claims, and as we explain above, Petitioner does not adequately establish that a person having ordinary skill in the art would have reached a system that selects a view in response to detected current computer system configuration (as opposed to selecting a view based on user input such as clicking a selection).

Based on the above, Petitioner has not adequately established that a person having ordinary skill in the art would have combined the teachings of Pröll and Preppernau to reach the recitations of claim 1. Thus, Petitioner has not established a reasonable likelihood of establishing that claim 1 is unpatentable based on Pröll and Preppernau.

b) Claim 20

Independent claim 20 is similar to claim 1 in relevant respects. Claim 20 requires an execution component configured to "detect a current system configuration from at least a first computer system configuration where the keyboard is positioned to receive input … and a second computer system configuration where the keyboard is not positioned to receive input." Ex. 1001, 74:7–13. Claim 20 also requires that the execution component be configured to "select one of the plurality of views for display on the computer system in response to the detected current computer system configuration. *Id.* at 74:14–17.

Petitioner's arguments as to claim 20 are the same as for claim 1. Pet. 90–91 (referring back to arguments for claim 1). For the reasons we provide as to claim 1, Petitioner has not established a reasonable likelihood of establishing that claim 20 is unpatentable based on Pröll and Preppernau.

c) Claims 3–14 and 19

Claims 3–14 and 19 each depend, directly or indirectly, from claim 1. Ex. 1001, 71:30–72:26, 73:6–10. The Petition does not address these claims in a manner that would cure deficiencies with regard to claim 1. Pet. 84–90. Thus, Petitioner has not established a reasonable likelihood of establishing that any of claims 3–14 or 19 is unpatentable based on Pröll and Preppernau.

5. Unpatentability over Pröll, Preppernau, and Chandhri (Ground 5)

Petitioner asserts claims 2 and 15–18 are unpatentable under 35 U.S.C. § 103(a) as obvious over Pröll in view of Preppernau and Chandhri. Pet. 91–93. Below, we address independent claim 17 and then address dependent claims 2, 15, 16, and 18 collectively.

a) Claim 17

Independent claim 17 is similar to claim 1 in relevant respects. Claim 17 requires an execution component configured to identify system configuration "based on sensor input indicating a position of the display component." Ex. 1001, 72:47–54. Claim 17 also requires that the execution component be configured to "select, responsive to the sensor input, a first content view" and to "transition, automatically in response to the sensor input, the display component between at least the first content view … and a second content view." *Id.* at 72:55–61.

The Petition relies on Chandhri as teaching in the same manner as the ground 2 Pröll, Martinez, and Chandri combination. Pet. 91–93. With respect to selecting a view in response to sensor input, Petitioner's arguments as to claim 17 are the same as for claim 1. *Id.* at 92–93 (referring back to arguments for claim 1). For the same reasons we provide as to claim

1, Petitioner has not established a reasonable likelihood of establishing that claim 17 is unpatentable based on Pröll, Preppernau, and Chandhri.

b) Claims 2, 15, 16, and 18

Claims 2, 15, 16, and 18 each depend from claim 1 or claim 17. Ex. 1001, 71:25–29, 72:27–24, 73:3–5. The Petition does not address these claims in a manner that would cure deficiencies with regard to claims 1 or 17. Pet. 91–93. Thus, Petitioner has not established a reasonable likelihood of establishing that claim 2, 15, 16, or 18 is unpatentable based on Pröll, Preppernau, and Chandhri.

IV. CONCLUSION

After considering the evidence and arguments presented in the current record, we determine that Petitioner has not demonstrated a reasonable likelihood of success in proving that at least one of the challenged claims of the ’715 patent is unpatentable. We therefore do not institute trial on any challenged claims or grounds raised in the Petition.

V. ORDER

For the foregoing reasons, it is

ORDERED that, pursuant to 35 U.S.C. § 314(a), we do not institute an *inter partes* review of any claim of the ’715 patent based on a ground asserted in the Petition.

For PETITIONER:

Jessica Kaiser
Christina McCullough
Kyle Canavera
Tyler Knox
James Day
Daniel Callaway
James Heintz
kaiser-ptab@perkinscoie.com
mccullough-ptab@perkinscoie.com
canavera-ptab@perkinscoie.com
knox-ptab@perkinscoie.com
jday@fbm.com
dcallaway@fbm.com
jim.heintz@dlapiper.com

For PATENT OWNER:

Gerald Hrycyszyn
Richard Giunta
ghrycyszyn-ptab@wolfgreenfield.com
rgiunta-ptab@wolfgreenfield.com