

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC.,
Petitioner,

v.

SMITH INTERFACE TECHNOLOGIES, LLC,
Patent Owner.

IPR2024-01115
IPR2024-01116
IPR2024-01119
Patent 10,656,754

**PETITIONER'S REPLY TO
PATENT OWNER'S RESPONSE**

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LIST OF EXHIBITS

EX1001	U.S. Patent No. 10,656,754
EX1002	U.S. Patent No. 10,656,754 File History
EX1003	Declaration of Dr. Loren Terveen
EX1004	U.S. Publication No. 2008/0207188 to Hye Sang Ahn <i>et al.</i> ("Ahn")
EX1005	U.S. Publication No. 2007/0150842 to Imran Chaudhri <i>et al.</i> ("Chaudhri-842")
EX1006	U.S. Publication No. 2011/0209093 to Kenneth P. Hinckley and Koji Yatani ("Hinkley")
EX1007	U.S. Publication No. 2006/0015818 to Imran A. Chaudhri <i>et al.</i> ("Chaudhri-818")
EX1008	Robert Kosara <i>et al.</i> , "Semantic Depth of Field," IEEE Symposium on Information Visualization 2001, pp. 97-104 (2001)
EX1009	New Oxford American Dictionary (3 rd Ed. 2010)
EX1010	U.S. Publication No. 2012/0304133 to Jennifer Nan <i>et al.</i> ("Nan")
EX1011	Certified translation of JP Published Patent Application No. 2002-55750 ("Hisatomi"), published February 20, 2002
EX1012	Internet Archive Capture of https://en.wikipedia.org/wiki/Acutance from Nov. 2, 2010 (available at https://web.archive.org/web/20101102045925/https://en.wikipedia.org/wiki/Acutance)

EX1013	U.S. Publication No. 2010/0095240 to Daniel Marc Gatan Shiplacoff <i>et al.</i> (“Shiplacoff”)
EX1014-1019	RESERVED
EX1020	United States District Courts — National Judicial Caseload Profile (Dec. 31, 2023) United States Courts (uscourts.gov), https://www.uscourts.gov/sites/default/files/fcms_na_distprofile1231.2023_0.pdf (last visited June 25, 2024)
EX1021	Memorandum, Interim Procedure for Discretionary Denials in AIA Post-Grant Proceedings with Parallel District Court Litigation (USPTO June 21, 2022) (“Guidance”)
EX1022	Case Management Order, Smith Interface Technologies, LLC v. Apple Inc., 3-23-cv-01187, S.D. Cal. (June 20, 2024)
EX1023	Reply Declaration of Dr. Loren Terveen
EX1024	Transcript of July 10, 2025 Deposition of Craig Rosenberg, Ph.D.
EX1025	U.S. Pat. No. 9,311,112 (“Shaffer”)
EX1026	U.S. Pat. No. 8,375,336 (“Matthews”)
EX1027	U.S. Pub. No. 201/0092381 (“Hoover”)

I. Introduction

The arguments set forth in the Patent Owner Response (“POR”) fail because they misconstrue the breadth of the prior art’s teachings and assume the prior art must be implemented exactly as described, mistaking a POSITA for an automaton and failing to “take account of the inferences and creative steps that a person of ordinary skill in the art would employ.” *KSR Intern. Co. v. Teleflex Inc.*, 550 US 398, 418 (2021). These arguments are not only legally improper, but they are also counter to the express teachings of the prior art, which refer to their figures and descriptions as examples in which the specific details are illustrative and not requirements. *See, e.g.*, APPLE-1004, [0071] (“Please note however that this is an exemplary illustration, and various menus can be displayed, depending on implementation.”); APPLE-1005, [0025] (“it will be apparent to one of ordinary skill in the art that the present invention may be practiced without [the] specific details” set forth), [0080].

For at least the reasons explained below, the POR fails to rebut the *prima facie* case of obviousness set forth in the Petition, leaving the Challenged Claims unpatentable over the prior art.

II. Ahn and Chaudhri-842 Render Obvious Sliding Out the Menu as a User Swipes Their Finger and Progressively Blurring the Interface In Correspondence With the Swipe

Elements [2.d] and [225.d] of independent claims 2 and 225 recite “during detection of at least a portion of the gesture before a completion thereof is detected, blur, based on a change in a magnitude of the gesture being detected on the touch screen, at least a portion of the at least one other object.” The Petition presents two theories regarding the obviousness of Elements [2.d] and [225.d]¹. Both theories rely upon the obviousness of the menus in the Ahn-Chaudhri combination following a user’s finger as the user performs the dragging gesture to open the menu. *See* Petition, 26-33. And the Petition’s second theory relies upon Chaudhri-842’s user interface state transition techniques to inform how a POSITA would have implemented the blurring of Ahn’s background user interface object(s). *See* Petition, 29-33.

A. Ahn and Chaudhri-842 Render Obvious Menus Following a User’s Finger as It Is Sliding on the Screen

Smith argues that “Petitioner’s first theory relies solely on Ahn,” and that “Ahn unambiguously uses ‘drag’ to describe the input—not any responsive movement of graphic 1800.” *See* POR, 25-35. Smith is incorrect on both counts.

¹ On page 68, the IPR2024-01116 Petition explains that “Element [225.d] is substantially the same as Element [2.d],” and refers to the Element [2.d] analysis.

Smith’s theory relies upon a misreading of Ahn and discounts a POSITA’s ordinary creativity. Furthermore, the Petition’s theory does not rely “solely” upon Ahn, but on the Ahn-Chaudhri-842 combination to render obvious the menu following the user’s finger. Petition, 26-29.

With respect to the embodiment of FIG. 18(a), Ahn teaches that “as the user drags the graphic shadow 1800, the menu list 1500 can be displayed along the dragged graphic 1800.” EX1004, [0118]². Similarly, with respect to the embodiment of FIG. 18(b), “as the user may press the graphic 1800 with a finger, the graphic 1800 gradually disappears in the display 40, and the menu list 1500 can be displayed as **emerging** from the left side of the display 40 **while the graphic 1800 disappears** in the display 40.” EX1004, [0119]. A POSITA would have found obvious that these temporal descriptions would have been implemented such that menu 1500 emerges “as the user” “drags in a right direction” while continuing to “press the graphic 1800.” See EX1004, [0117]-[0119]; EX1023, [11].

Indeed, Smith admits that Ahn discloses animations for the menu emerging from the side of the display, so even under Smith and their expert’s interpretation of Ahn, the only difference between Ahn and the claims is whether the animation occurs in direct correspondence with a user’s dragging gesture or after the dragging gesture is complete—a straightforward design choice if there ever was

² Emphasis added throughout unless otherwise noted.

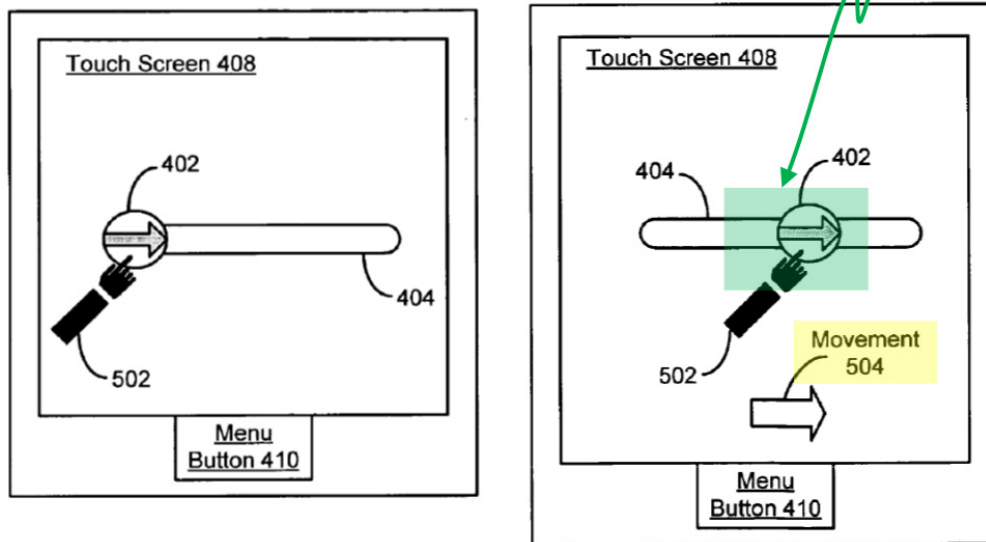
one. *See* POR, 17, 32-33 (“Ahn’s menus are displayed as animations”); EX1024, 99:16-108:20; EX1023, [12].

More importantly, the Petition’s analysis relied on the Ahn-Chaudhri combination. Specifically, the Petition explained that “Chaudhri-842 describes moving displayed graphics in correspondence with the magnitude of gestures associated with those graphics in order to provide the user who is performing the gesture a visual confirmation of the gesture and help direct them on how to complete the gesture.” Petition, 27-28. In support, the Petition cited various examples of visual cues provided by Chaudhri-842, including images that “move along with the gesture as the gesture is detected.” *Id.*

In cited paragraph [0054], Chaudhri-842 describes “visual cue(s) [that] provide hints or reminders of” actions to the user, and “visual cues may be textual, graphical or any combination thereof.” EX1005, [0054]. “[T]he visual cues may also be displayed upon particular user inputs, such as the user interacting with the menu button...” *Id.* In an example of a locked device, Chaudhri-842 describes an unlock action with respect to “an unlock image” displayed “along with the visual cues,” and teaches that performing an unlock action with respect to “the image includes dragging the unlock image in a predefined manner, which moves the unlock image across the touch screen.” EX1005, [0062]. To leave no confusion, an example of this “unlock action” is shown in FIGS. 5A-5C (reproduced below),

which illustrate a user “performing [a] gesture by moving her finger, which is in continuous contact with the touch screen [.]” and an image being “dragged along...as a result of the gesture.” See EX1005, [0074]-[0079]; EX1023, [14].

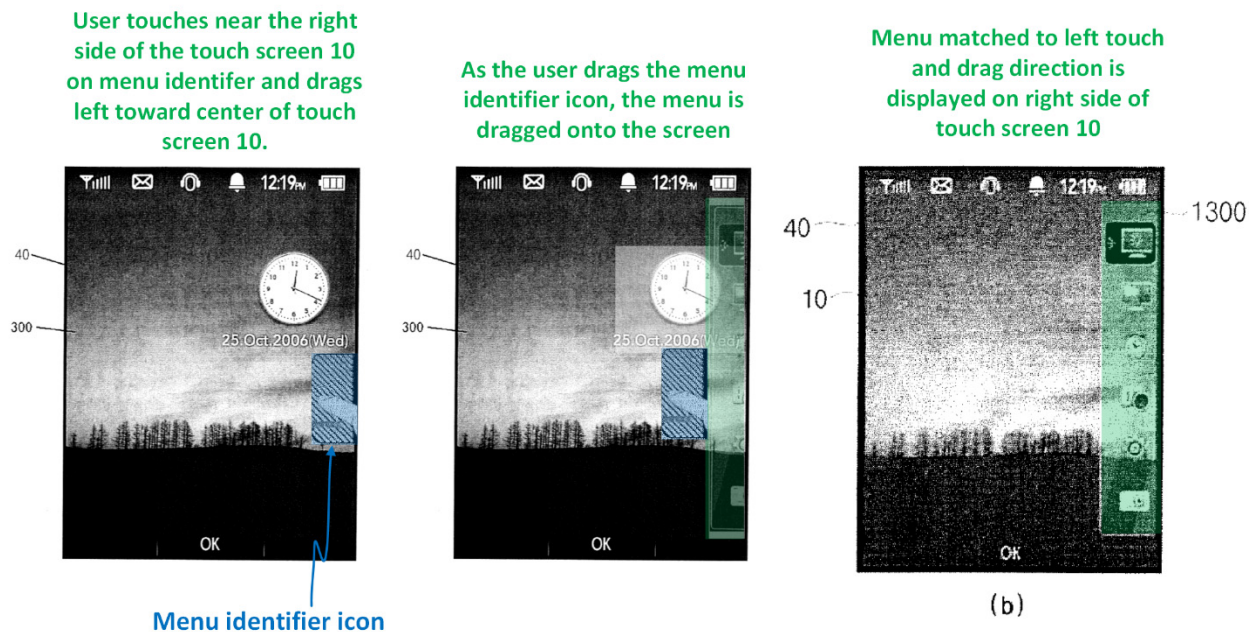
Graphic following user's finger during transition gesture



Chaudhri-842 (EX1005)
FIGS. 5A and 5B (Highlighted and Annotated)

There can be no credible argument against Chaudhri-842 explicitly describing and illustrating an image following a user's finger. EX1023, [15]. A POSITA would have understood and found obvious that the purpose of Chaudhri-842's visual cues is the same as Ahn's “identifier [e.g., graphic shadow 1800] for notifying the user that an item list matched to the specific direction is displayed in the display 40.” Compare EX1005, [0054] to EX1004, [0117]; EX1023, [15].

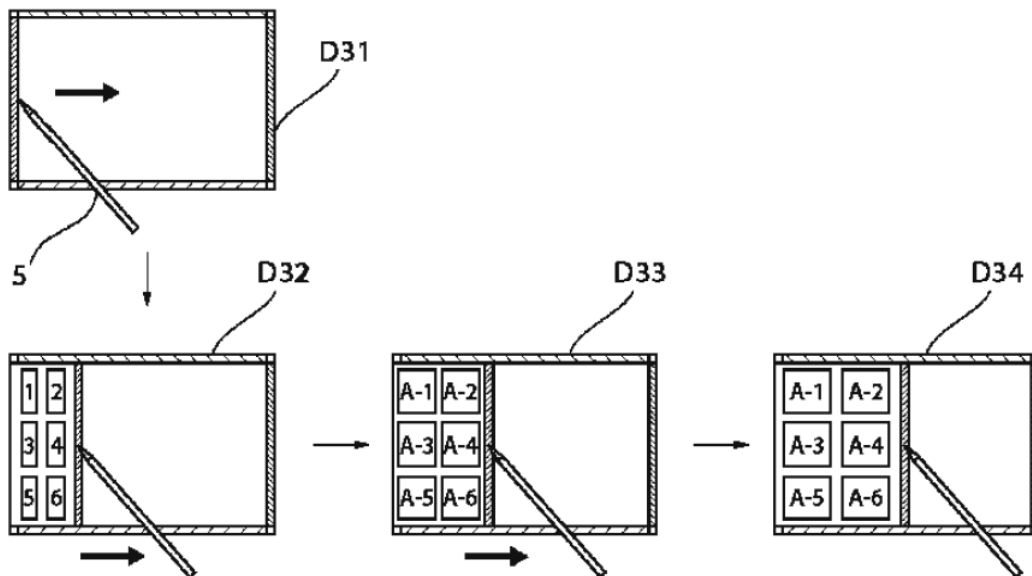
Like Chaudhri-842's unlock image, a POSITA would have found it obvious that, in order to open a menu, a user touches the touch screen at the location corresponding to the Ahn's graphic shadow 1800 and moves her finger across the display while in continuous contact with the touch screen. EX1004, [0117]-[0118]; EX1005, [0074]-[0075]; EX1023, [15]. While the gesture is being performed, the graphic shadow 1800 is dragged along as a result of the gesture and the menu is "displayed along the dragged graphic 1800." *Id.* An example of this is shown below.



EX1023, [15].

This sequence of events is consistent with the express teachings of Ahn and Chaudhri-842, which is unsurprising, as this method of opening a menu was well known in the art, as evidenced by other references cited in the Petition. For

example, Hinckley describes opening a menu from the side of a display similar to Ahn, where the menu “slides out and tracks with the user’s finger.” EX1006, [0080]. Similarly, Nan describes an example of “edge gestures” that open a menu, and that the menu “presented in response to a gesture [can] be presented prior to completion of the gesture” and “progressively as the gesture is received.” See EX1010, 4:1-4, 6:65-7:8; EX1023, [16]. “This permits a user experience of dragging out the user interface from the edge as the gesture is performed with the user interface appearing to ‘stick’ to the gesture.” *Id.* And Hisatomi describes “processing procedures at the time of displaying [a] pull-out menu” during which “the display amount of the pull-out menu will be updated corresponding to the X coordinate value generated by the input device.” EX1011, [0050]-[0052]; EX1023, [16].



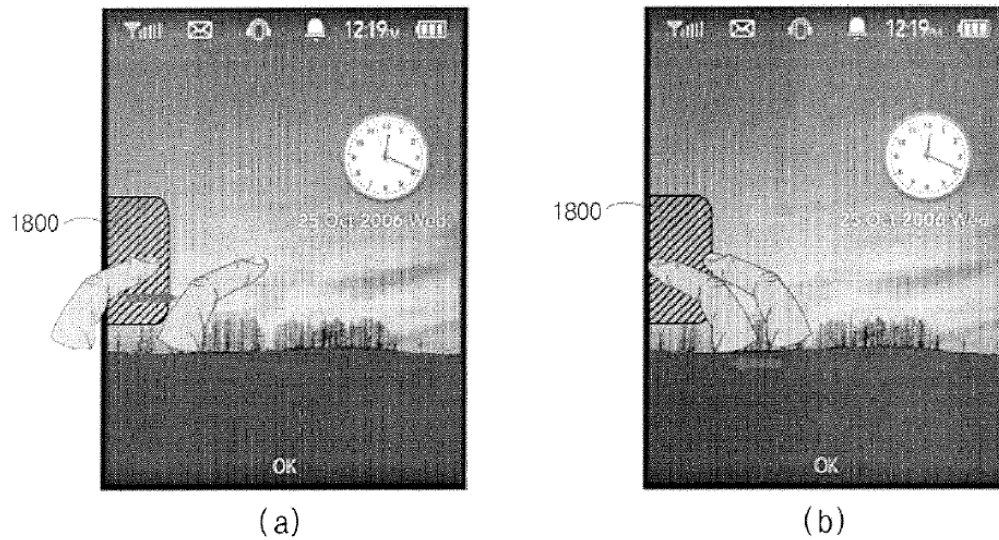
Hisatomi (EX1011), FIG. 21

Thus, as explained in the Petition, “[a] POSITA would have found obvious from these teachings that, in at least implementations like those described referencing FIG. 18, Ahn’s menu list would have been graphically displayed as sliding onto the display based on a change in a magnitude of the ‘touch and drag’ gesture being detected on the touch screen.” Petition, 28; *see also* EX1023, [17].

B. Smith’s Expert’s Testimony Is Based on Misunderstandings of the Law and Prior Art and Should Be Given Little to No Weight

Smith’s expert, Dr. Rosenberg, was deposed in related IPR2024-01083 on July 10, 2025 (after he prepared and signed the declaration in the current proceeding), and he was asked questions about his interpretation of the Ahn reference at issue here. The questions asked during that deposition focused on one figure and three paragraphs of Ahn: FIG. 18 and paragraphs [0117] to [0119]. *See generally* EX1024. Over the course of the deposition, Dr. Rosenberg could not clearly articulate the perspective of a POSITA and his interpretation of Ahn changed numerous times. *See id.* By the end, Dr. Rosenberg articulated an entirely new interpretation of Ahn that was not the basis of the opinions he offered in his declarations—the only evidence other than Ahn itself supporting Smith’s flawed positions. *See* EX1024, 98:17-116:12.

FIG. 18



[0117] In the above-described implementations, if the touch and drag operation of a specific direction is performed in the touch input device 10, an identifier for notifying the user that an item list matched to the specific direction is displayed in the display 40 can be displayed in the display 40. The identifier may be graphical in form, such as an icon. For example, the identifier may be a specific icon for notifying a start position of the touch and drag operation.

[0118] FIG. 18 illustrates an example of a screen for displaying a graphical display for notifying a start position of a touch and drag operation to a user. For example, referring to FIG. 18(a), if the user drags in a right direction after touching

the screen, a graphical shadow 1800 is displayed in the display 40, and the menu list 1500 shown in FIG. 15(b) can be displayed in the display 40. In this case, as the user drags the graphic shadow 1800, the menu list 1500 can be displayed along the dragged graphic 1800.

[0119] Further, for example, referring to FIG. 18(b), if the user touch drags to the left, the menu list 1500 shown in FIG. 15(b) can be displayed in the display 40. In this case, as the user may press the graphic 1800 with a finger, the graphic 1800 gradually disappears in the display 40, and the menu list 1500 can be displayed as emerging from the left side of the display 40 while the graphic 1800 disappears in the display 40.

Ahn (EX1004), FIG. 18, [0117]-[0119]

Specifically, over the course of the deposition, Dr. Rosenberg changed his explanation of how a user would open a menu through interaction with Ahn's graphic shadow 1800 no less than four different times.

1. Initially, Dr. Rosenbreg testifies that "it would seem reasonable that [shadow 1800] could be implemented such that the start position needs to be within that cross hatched area. But, I can also see that, depending on the implementation, that it just becomes an indication,

something called an affordance, if you are familiar with that term . . .

to let the user know that there is something hidden on the left-hand side that could come out. And maybe the designers didn't want to be so restrictive as to limit the Y start position.” *See* EX1024, 45:8-49:9.

2. Apparently uncomfortable with his initial idea that a POSITA might flexibly read Ahn's “start position,” Dr. Rosenberg backtracked to an interpretation in which a POSITA would “have to implement the system such that the user touches down inside of the graphical shadow and drags right in order to open the menu. If the touch down position is anywhere else, it cannot open the menu.” EX1024, 67:3-15; *see also id.* 52:4-54:1. While Dr. Rosenberg agreed there were advantages to allowing a user to touch just outside the shadow 1800 to begin the menu-opening swipe, he contended a POSITA would not have implemented it this way. EX1024, (54:2-55:19). Further, according to Dr. Rosenberg, if the user tapped the graphic shadow a POSITA “would think that nothing happens.” EX1024, 88:4-9.
3. Only moments later, Dr. Rosenberg re-read Ahn's paragraph [0119] and determined that there “[s]eems to be a swipe to the right starting on the graphical shadow, or a press on the, a press on the 1800” that would open the menu. EX1024, 88:14-93:12.

4. Finally, after further reflection regarding Ahn's paragraph [0118] and [0119], Dr. Rosenberg arrived at his final explanation for how a POSITA would have understood Ahn: "it is a right swipe to bring up the graphic shadow and then a left swipe that is starting on the graphic shadow to dismiss the graphic shadow and bring up 15B." EX1024, 98:17-112:4. A right-swipe would not open the menu at all. *Id.*

That Dr. Rosenberg would fundamentally shift his opinions regarding these few paragraphs of one prior art reference suggests he either did not carefully review or did not understand the prior art before rendering the opinions in his declarations.

Just as troubling, Dr. Rosenberg was confused during the deposition regarding the perspective from which he evaluated the prior art. At various points during the deposition, Dr. Rosenberg suggested that different POSITAs who have the qualifications adopted in this proceeding would have understood Ahn differently. *See, e.g.*, EX1024, 56:5-14 ("if you have two different POSITAs, if they are assumed to have the exact same training and the exact same experience . . . [i]n reality we know that. . . [e]very person is an individual[, s]o, some may have recognized that and some may not have"); 63:3-65:5 ("I don't believe every POSITA are, you know, identical clones of each other. . . . Just two people that have the same computer science degree and two years of experience designing user

interfaces doesn't mean that they have the exact same design ideas just because they, they both match identically what a POSITA is.”).

Moreover, Dr. Rosenberg limited his analysis to what a POSITA would have read directly from the prior art references and explained that he did not consider how a POSITA’s knowledge would impact their understanding of the prior art or what would have been obvious from it. *See, e.g.*, EX1024, 40:13-41:21 (“I think there are descriptions in Ahn, that describe -- and this goes, it is the same for Chaudri and Hinckley. . . . That is descriptive in how the system of Ahn, Chaudri and Hinckley work. And if they were given to a software engineering team, or multiple teams, one would expect those teams to build the system in accordance with the patents themselves.”); 70:20-73:8 (“if the POSITA implemented something different than what was described in 118, that would be the POSITA going off and implementing what they felt was best and not what is described. We really have to stick with what is, you know, **what is disclosed in Ahn itself**”); 120:4-124:19 (“what is important here is, it is **not what creative ideas a POSITA could have above and beyond what Ahn is describing when the POSITA is reading Ahn.** A POSITA might read Ahn and think of, oh, I can think of ten additional things that I could do to this that aren't described in Ahn at all. I mean, that is what we are talking about here.”)

Dr. Rosenberg’s approach is fundamentally inconsistent with the law. “In *KSR*, the Supreme Court criticized a rigid approach to determining obviousness based on the disclosures of individual prior-art references, with little recourse to the knowledge, creativity, and common sense that an ordinarily skilled artisan would have brought to bear when considering combinations or modifications.” *Randall Mfg. v. Rea*, 733 F. 3d 1355, 1362 (Fed. Cir. 2013) (citing *KSR*, 550 U.S. at 415-22). “Rejecting a blinkered focus on individual documents, the Court required an analysis that reads the prior art in context, taking account of ‘demands known to the design community,’ ‘the background knowledge possessed by a person having ordinary skill in the art,’ and ‘the inferences and creative steps that a person of ordinary skill in the art would employ.’” *Id.*

Having failed, by his own admission, to account for the background knowledge, inferences, and creative steps a POSITA would employ, Dr. Rosenberg failed to consider the prior art and what was obvious in light of it from the proper perspective. These failures infect his entire declaration. And Smith’s counsel did not seek further explanation or clarification of Dr. Rosenberg’s flawed approach through redirect. EX1024, 124:21-125:5. Thus, his opinions should be given little to no weight, and Smith’s arguments regarding what a POSITA would and would not have found obvious are exposed as mere attorney argument unsupported by actual knowledge of those POSITAs’ perspective.

C. Chaudhri Renders Progressively Varying the Optical Intensity of Objects in Correspondence with a User's Input Obvious to Try

Smith argues that “Chaudhri-842 teaches the opposite of Petitioner’s modification” because “Chaudhri-842 does not vary the optical intensity of a background,” and instead “teaches varying the optical intensity of foreground UI elements.” POR, 41. Smith asserts “Ahn’s clock widget is part of the background, as conceded by Petitioner.” POR, 42. Not so.

Contrary to Smith’s allegation, the Petition states that “Ahn already illustrates in FIGS. 3A and 4B that the process of opening the edge menus may cause user interface objects that are displayed as part of the standby screen 300 (e.g., a clock widget) to be blurred when the edge menu is opened and displayed on the screen.” Petition, 15-16. The Petition clearly treats Ahn’s clock widget as a “user interface object” that is displayed with the background image. Petition, 19-23; *see also id.*, 41-45. And, as explained on page 24 of the Petition, Chaudhri-842 describes that the “user-interface objects” to which its teachings apply broadly encompass “objects that make up the user interface of the device and may include, without limitation, text, images, icons, soft keys (or ‘virtual buttons’), pull-down menus, radio buttons, check boxes, selectable lists, and so forth.” EX1005, [0060]. “The displayed user-interface objects may include non-interactive objects that convey information or contribute to the look and feel of the user interface, interactive objects with which the user may interact, or any combination thereof.”

Id. There is no indication that Chaudhri-842 intended to limit its changes in optical intensity to “foreground” objects, as Smith alleges. EX1023, [20].

Indeed, Chaudhri-842 teaches an example in which, “as the user transitions from a first application and to a second application, a user interface for the second application may fade in (i.e., increase in intensity) and a user interface for the first application may fade out (i.e., decrease in intensity).” EX1005, [0079]. “In other words, the transition may appear to a user as though objects associated with the second user interface state ‘fade in’ while objects associated with the first user interface state ‘fade out.’” EX1003, [47]. And when Chaudhri-842 teaches that “the optical intensity may be the visual differentiation between the user-interface object and the background,” it does not limit the corresponding changes in optical intensity to only the user-interface object or exclude the optical intensity of the background from also being changed to further the visual differentiation. *See* EX1005, [0085]; EX1023, [21]. Thus, Chaudhri-842 directly supports the Petition’s combination.

Further, the Petition set forth several other motivations for this combination, including that “fading out” the clock widget consistent with the teachings of Chaudhri-842 “would have been one of a limited number of ways of implementing the blurring effect shown in FIGS. 4B, 10, and 13B of Ahn.” Petition, 19. Smith does not present any other ways of implementing the blurring effect or otherwise

rebut this motivation. *See* POR, 35-47. Thus, this motivation for the Ahn-Chaudhri combination stands un rebutted, and it alone supports the blurring of Element [2.d] and [225.d].

D. The Dependent Claim Analysis Is Perfectly Consistent with the Menu Sliding with a User's Finger

Smith argues that, “[i]n analyzing the challenged dependent claims, Petitioner expressly relies upon embodiments of Ahn that do not progressively slide onto the display with the user’s gesture (i.e., menus that do not appear until after completion of the gesture).” POR, 47-50. However, this argument misunderstands the Petition’s reliance on Ahn’s FIG. 16. EX1023, [23]

The Petition cites to FIG. 16 of Ahn as teaching that “controller 50 determines whether a drag distance of the detected touch and drag operation is a first distance or more (S1620),” and “[i]f a drag distance of the detected touch and drag operation is a first distance or more, the controller 50 controls to display a first menu list matched to the specific direction (S1630).” EX1004, [0109]; IPR2024-01115 Petition, 40-41. However, these disclosures are referred to in the context of the Ahn-Chaudhri combination. IPR2024-01115 Petition, 40; *see also* IPR2024-01116 Petition, 43-44, 68.

Dependent claims 27, 186, and 230 refer back to “the gesture” recited in independent claim 2. Thus, the application of the Ahn-Chaudhri combination to “the gesture” of independent claim 2 still applies in the treatment of the dependent

claims. EX1023, [25]. In other words, the Petition was relying upon aspects of FIG. 16 in the context of the combination, where the menu follows the user's finger, as discussed in Section II.A, *supra*. EX1023, [25]. There is no contradiction in this position, and this alone renders Smith's argument moot.

Even accepting, *arguendo*, Smith's position, Ahn does not specify or limit the "first distance" that the drag operation must meet or exceed in order to display a first menu. EX1004, [0109]; EX1023, [26]. A POSITA would have found obvious that the "first distance" would be a *de minimus* distance used to distinguish a drag gesture from other gestures, such as a "tap." EX1023, [26]. The use of such *de minimus* distances to distinguish between gestures was well known to POSITAs as of the Critical Date. For example, Shaffer describes that a "tap" may include some small amount of movement of a user's finger, so long as the movement is "less than a predefined threshold." See EX1025, 28:37-62. On the other hand, if the user's finger exceeds this *de minimus* threshold the gesture may, for example, be recognized as a "swipe." See EX1025, 30:19-42 (definition of swipe includes "swiping of at least N pixels"). Similarly, Matthews offers that, "[i]f the duration of the gesture does not comprise a distance of uninterrupted movement above a predefined distance..., the gesture is considered a tap-type operation... Otherwise, the gesture is considered a drag operation." APPLE-1026, 10:65-11:7; *see also id.*, 3:38-46.

Thus, a POSITA would have understood and found obvious that Ahn's FIG.

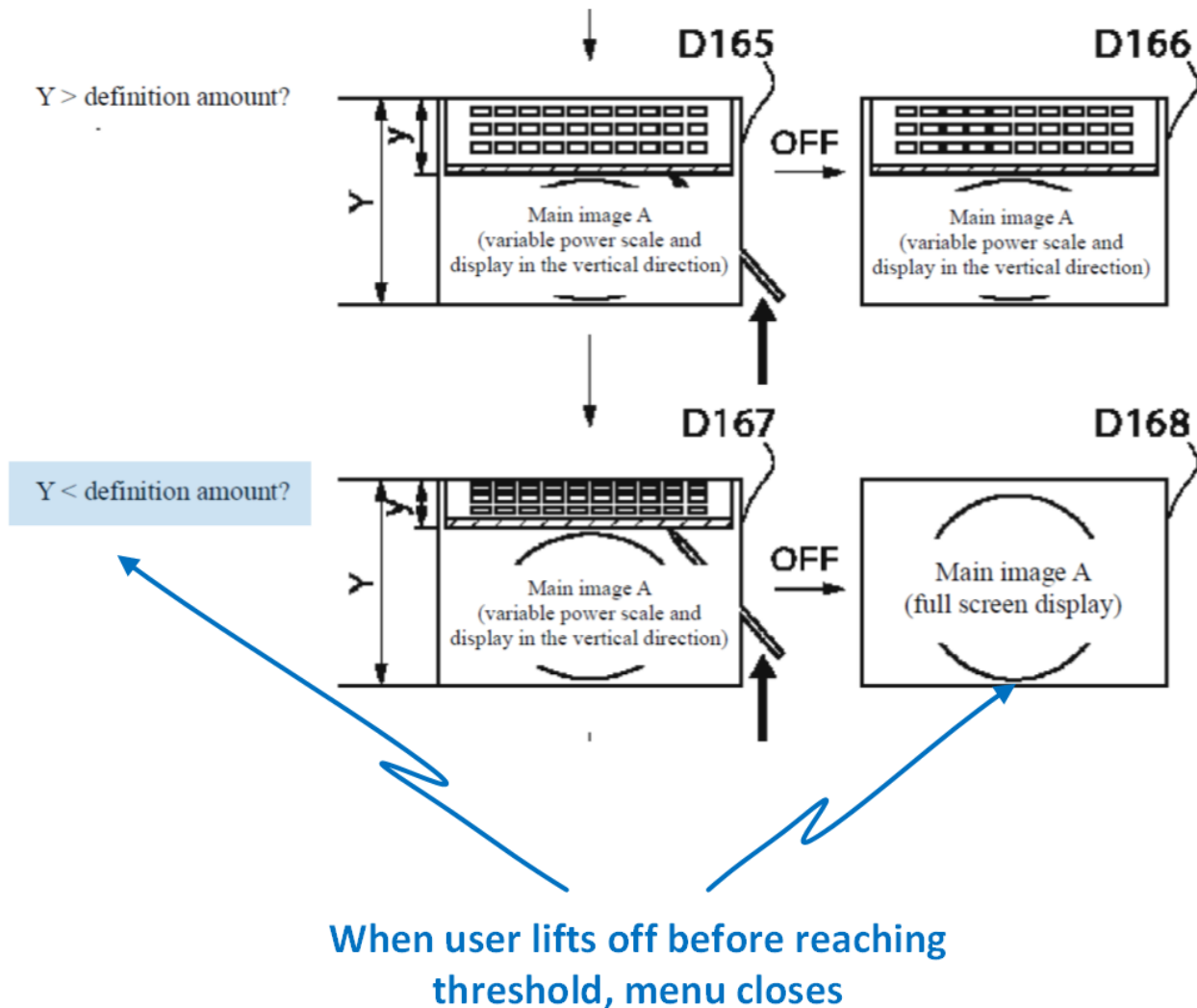
16 process would first determine that the user's finger has traveled further than a first, *de minimus* distance, interpret the gesture being performed as a dragging gesture, and have the menu indicator (*e.g.*, graphical shadow 1800) follow the user's finger. EX1023, [27]. Because the first distance is small, a user would not be able to perceive the brief portion of their drag gesture during which Ahn's device is attempting to distinguish between different types of gestures. EX1023, [27].

Further, as Dr. Terveen explained in his deposition, a POSITA would have reasonably interpreted reference in Ahn's FIG. 16 to "display[ing] a first menu" at S1630 as the complete opening of the menu. *See* EX2009, 38:9-44:1; EX1004, [0105]-[0109]. That is, from FIGS. 16 and 17, a POSITA would have additionally or alternatively understood that the menu follows the user's finger, and only after the user's finger has traveled a certain distance would the menu be and remain fully opened when the user's finger lifts from the screen. EX1023, [28]. Smith's counsel did not seek any clarification at the deposition to rebut this interpretation. *See* EX2009, 38:9-44:1.

Ahn describes that, "[i]f a drag distance of the detected touch and drag operation is a first distance or more, the controller 50 controls to display a first menu list matched to the specific direction (S1630)." EX1004, [0109]; *see id.*,

[0111] (similar description for FIG. 17). These descriptions do not require that the menu remain completely off the screen before a specific drag distance is reached. *See* EX1004, [0105]-[0116]; EX1023, [29]. Rather, the descriptions only require that “the controller 50 controls to display a first menu.” *Id.* One obvious way this would work is for Ahn’s menu to follow the user’s finger, and depending on whether the finger travels a certain distance before it lifts off the screen, the menu would either close or remain open. EX1023, [29]

That the menu would remain open only after reaching a particular drag distance is consistent with similar prior art interfaces. *See, e.g.*, EX1005, [0062] (describing that if a dragging gesture is not complete, a dragged image is returned to its starting position); EX1011, [0048] (“in a period when the menu pull-out amount *y* is less than the defined amount, if it became OFF as shown on screen D5 in FIG. 12, the process of pulling out the menu will be cancelled midway and the process will return to step S101”), [0052], [0192]; EX1023, [30].



Hisatomi (EX1011), FIG. 50 (Annotated)

For these reasons, a POSITA would have understood and found obvious that Ahn's teachings with respect to FIG. 16 do not contradict a menu following a user's finger as the user performs a dragging gesture to open the menu. EX1023, [31]. Rather, a POSITA would have appreciated that Ahn's FIG. 16 provides teachings that inform the use of distance threshold in determining what to display,

and would not have seen FIG. 16 as precluding any obvious implementation details. EX1023, [31].

III. Shiplacoff Renders Varying the Speed of the Displayed Cards Obvious

Elements [1.d] and [1.e] of independent claim 1 recites “while the first contact is detected moving across the display: moving the first user interface element in a first direction on the display at a first speed; [and] moving the second user interface element on the display at a second speed greater than the first speed.” Petition, v. In addressing these Elements, the Petition relied upon the obvious distinction between the speed of a card being dragged across the display by the user and the speed at which a card moves automatically to fill in spots or scroll while the user is performing the dragging gesture. Petition, 44-49.

Smith argues that “Petitioner’s theory regarding the speed of the cards is based on the assumption that the term ‘snap’ means moving an object quickly,” and that “[t]here is no disclosure or teaching in Shiplacoff that would suggest ‘snap’ is related to the speed than an object moves.” POR, 74-75. This is incorrect.

First, the theory does not rely upon Shiplacoff intending for the word “snap” to mean that the cards move quickly. EX1023, [34]. Rather, the Petition explains that “the speed of card 301B is dictated by the speed at which the user’s finger moves across the touchscreen, which would naturally vary throughout the gesture

and would, in some instances, slow substantially while the other cards in the sequence shift,” and that in such instances, “the speed of card 301B would have been slower than cards 301C and 301D as they ‘snap’ to fill the gap.” Petition, 49.

These teachings of Shiplacoff render Elements [1.d] and [1.e] obvious regardless of whether the “snap” is “quick.” EX1023, [35]. The Petition and Dr. Terveen recognized “that, in filling the gap, cards 301C and 301D move with a particular speed,” and this speed is a design choice. Petition, 48-49; EX1003, [361], [364]-[367]. The Petition further explained how “the speed of the card 301B moving across the display would have matched the speed of the user’s finger moving across the touch-sensitive screen,” and how this speed of card 301B (in comparison to the fixed speed of cards 301C and 301D) “would naturally vary throughout the gesture, including coming to or nearly to a stop at the top of the upward drag shown in FIG. 9B.” Petition, 46, 48-49 (citing EX1013, [0104]-[0106]); EX1023, [35]. Accordingly, whatever automatic filling speed a POSITA chose, that speed would obviously be faster than a “near stop” to which a user would bring card 301B as the movement of cards 301C and 301D was happening. *See* EX1013, [0104]-[0106]; EX1023, [35].

Second, Shiplacoff’s use of the word “snap” is evidence in and of itself that the speed intended by Shiplacoff is quick. EX1023, [36]. Smith admits that, in certain contexts, the word “snap” connotes “quick movements.” POR, 76.

However, Smith argues that, in the user interface context, the word “‘snap’ is related to an object’s alignment or position on the screen and not a speed that the object moves.” POR, 76. The references to which Smith cites for support prove instead that the speed of a “snap” is quick. EX1023, [36].

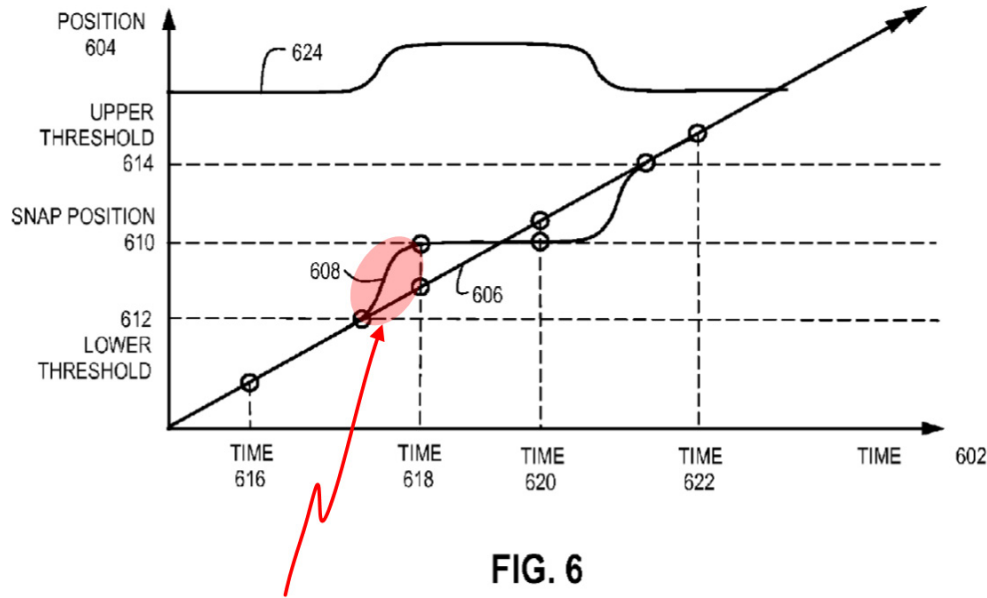
Smith asserts that, in Rapp (EX2012), a snap “automatically, without user intervention, ‘align[s] one edge of the user interface object 6002 with the first guide 6082.’” POR, 76. At no point, though, does Rapp suggest this “snapping” of a user interface object into a particular position happens anything other than quickly. *See* EX2012, [0171]-[0172]; *see also id.* [0226]-[0232], [0235]-[0236]; EX1023, [37]. To the contrary, Rapp describes that “there is a need for computing devices with faster, more efficient methods and interfaces for more accurately manipulating user interface objects, while minimizing the number of user inputs required to perform the user interface object manipulation tasks.” EX2012, [0006]; *see also id.* [0032], [0176], [0206]. In other words, Rapp explicitly intends for the manipulation of its user interface objects to be “faster,” which a POSITA would have understood to mean that the described “snapping” happens quickly. EX1023, [37].

The other citations in the POR describe the result of “snapping” without limiting how the “snap” itself is displayed, and certainly do not dictate or limit the speed at which the “snap” occurs. *See* POR, 75-78 (citing EX2013, 2/8; EX2014,

[0002]-[0003]; EX2016, 1-3); EX1023, [38]. However, looking beyond these limited citations, Smith’s Jaeger reference actually teaches the opposite of Smith’s contention. EX1023, [38].

Specifically, Jaeger explains that “the ‘snap to grid’ option...of conventional computer programs” results in “a text or object being moved over the grid by the user jump[ing] from one position to another in predefined distances,” and this results in “an unusual or unnatural movement for a dragged text or object.” EX2014, [0002]-[0009]. In other words, Jaeger proves that, without contrary teachings, a POSITA would have assumed that a “snap” causes user interface objects to move quickly (*i.e.*, “jump”) across the display. *See id.*; EX1023, [39].

This is consistent with the broader prior art. For example, Hoover (EX1027) teaches that, as a “user moves his finger(s) to manipulate an element,” the “element snaps to a snap position [] when the element’s position reaches a” threshold. EX1027, [0049]; EX1023, [40]. Hoover notes that “the user moves his finger(s) at a constant rate of speed..., but as depicted by the plot of the position of the element over time 608, the element does not move at a constant rate of speed.” EX1027, [0049]. “Rather, the movement of the element is accelerated toward the snap position 610.” EX1027, [0050].



Acceleration of object due to “snap”,
despite constant speed of user’s finger

Hoover (EX1027), FIG. 6 (Annotated)

The prior art is clear: a POSITA would have expected a “snap” to quickly move a user interface object across a display. EX1023, [41]. Likely aware of the weakness of its position, Smith attempts to make one final argument against Shiplacoff rendering Elements [1.d] and [1.e] obvious, but this argument finds no support in Shiplacoff and was contradicted by Smith’s counsel in deposition.

Specifically, Smith argues that, “[a]s shown in FIGs. 9B to 9C [], the user’s finger and card 301B are stationary as card 301C fills the gap.” POR, 79-80. Shiplacoff is not so limited. Rather, Shiplacoff’s explanation of FIGS. 9A-9D describes a user dragging and moving card 301B, but says nothing about card 301B being “stationary.” EX1023, [42].

[0104] In one embodiment, the user can also rearrange cards 301 while in card mode, by tapping and holding a card 301 for a period of time (such as, for example, 500 milliseconds), and then dragging a card 301 from one position to another. An example is shown in FIGS. 9A through 9D. The user taps and holds his or her finger on card 301B, then drags card 301B upward, causing cards 301C and 301D to move to fill the gap. The user does not immediately release card 301B however; instead, he or she moves card 301B into a position between cards 301C and 301D, as shown in FIG. 9C. As the user moves the dragged card 301B between two other cards 301C and 301D, the two cards 301C and 301D separate to allow placement of the dragged card 301B. The result is the sequence shown in FIG. 9D, where card 301B is now positioned between cards 301C and 301D.

Shiplacoff (EX1013), [0104] (Highlighted)

Shiplacoff explains that, “[o]nce the movement action has been initiated, the user can **continue to drag** card 301 in any direction in order to place card 301 at the desired position within the sequence of cards 301.” EX1013, [0106]. In other words, Shiplacoff actually describes continuous movement of the user’s dragging gesture. EX1023, [43]. This is consistent with the Petition’s explanation that, “[i]n the example shown in FIGS. 9A-9D, a POSITA would have found obvious that the dragging speed—and thus the speed of the card 301B— would naturally vary throughout the gesture, including **coming to or nearly to a stop at the top of the upward drag** shown in FIG. 9B to allow cards 301C and 301D to move to fill in the gap.” Petition, 46 (citing EX1013, [0104]-[0106]).

Smith cites Dr. Terveen’s deposition as allegedly corroborating its position that the card 301B remains stationary while cards 301C and 301D fill the gap. *See*

POR, 79-80. However, Dr. Terveen only acknowledged that the card 301B would stop moving “if the user’s finger is not moving on the screen.” See EX2009, 80:14-81:15. This is axiomatic because Shiplacoff describes “a gesture of dragging the card” and “what that means is that the finger and the card move in tandem.” EX2009, 81:16-82:8. Dr. Terveen acknowledged in his Original Declaration that natural variation of the user’s dragging speed would encompass both her finger coming to a stop or “slow[ing] substantially while the other cards in the sequence shift.” EX1003, [361], [367]-[368]; EX1023, [44].

Tellingly, just after the cited portion of Dr. Terveen’s deposition, Smith’s counsel confirmed with Dr. Terveen a characterization of Shiplacoff’s FIGS. 9A-9D in direct contradiction to the position now taken in the POR. Compare EX2009, 82:9-83:3 to POR, 79-80.

9	Q	Gotcha.
10		So from Figure 9A to 9B, the
11		user's finger and the card both move
12		upward, and then from Figure 9B to 9C, the
13		user's finger and the card <u>both move</u>
14		downward, and then the user releases their
15		finger to rearrange that card 301B?
16	A	I think -- yeah, you're
17		describing a number of steps. The user

Deposition Transcript (EX2009), p. 23

Referring to FIGs. 9A-9D of Shiplacoff: card 301B is moved in a first direction (upward) from FIG. 9A to FIG. 9B; card 301B is not moved at all from FIG. 9B to FIG. 9C; and card 301B is moved in a different direction (downward) from FIG. 9C to FIG. 9D. EX2018, 184. As shown in FIGs. 9B to 9C (below), the

POR, p. 79

Thus, Dr. Terveen reconfirmed the exact position he took in his Original Declaration. EX1023, [45]. And as Dr. Terveen concluded in his Original Declaration, the Ahn-Chaudhri-Shiplacoff combination renders Elements [1.d] and [1.e] obvious. *See* EX1003, [0355]-[0368].

IV. The Gestures Mapped in Claims 2 and 208 Are the Same Dragging Gesture that Opens a Menu and Results in the Blurring of Ahn's Background and Clock Widget

Smith argues that “Petitioner fails to analyze or integrate its claim 2 mapping to its mapping for claim 208 and, at best, only shows that two disparate gestures meet the claimed features.” POR, 81. However, the gesture relied upon with respect to claims 2 and 208 is the same: a dragging gesture that opens a menu. EX1023, [46].

With respect to claim 2, the Petition explained the combination's dragging gesture and resulting user interface operations using certain example menus described in Ahn, but the Petition's explanation would have equally applied for any menus in the Ahn-Chaudhri combination. *See generally* Petition, 24-33;

EX1023, [47]. With respect to claim 208, the Petition relied further upon the disclosures of Shiplacoff in explaining how the Ahn-Chaudhri-Shiplacoff combination renders obvious a dragging gesture that opens a particular type of multi-tasking menu while still blurring Ahn’s background, including the clock widget—consistent with the explanation provided in claim 2. *See generally* Petition, 50-68.

A. The Petition’s Analysis of Claims 2 and 208 Reply Upon the Same Menu Opening Gesture

Smith argues that the Petition “identifies Ahn’s left touch and drag operation shown in FIG. 13” as the “gesture” recited in claim 2, but inconsistently “identifies ‘a swipe up gesture...described in Shi[p]lacoff,’” as the “gesture” recited in claim 208. POR, 82-85. The Petition’s analysis was not so limited.

In analyzing Element [2.c], the Petition relied upon Ahn’s general “touch and drag operation” as the claimed “gesture.” *See* Petition, 25-26 (“A POSITA would have found obvious that Ahn’s ‘touch and drag operation’ is a gesture”). While the Petition turned to “one example illustrated in FIGS. 13a and 13b” in explaining how Ahn’s “touch and drag operation” works, the Petition did not limit its analysis to this one example. *See id.*; EX1023, [49].

Similarly, in analyzing Element [2.d], the Petition explained how “[a] POSITA would have found obvious from these teachings that, in at least implementations like those described referencing FIG. 18, Ahn’s menu list would

have been graphically displayed as sliding onto the display based on a change in a magnitude of the ‘touch and drag’ gesture being detected on the touch screen.”

Petition, 28. Again, the Petition referenced FIG. 18 to help illustrate its obviousness analysis, but never limited its analysis of Element [2.d] to this or any other singular example. *See* Petition, 26-33; EX1023, [50].

When turning to the teachings of Chaudhri-842, the Petition explained how “a POSITA would have at least found it obvious to vary, according to the teachings of Chaudhri-842, the optical intensity of the standby screen or at least portions thereof (e.g., the blurring of the clock widget, as shown in FIGS. 4B, 10, and 13b) as a visual indication of a user’s progress in completing Ahn’s ‘touch and drag’ gesture.” Petition, 33. Thus, without restricting the analysis to any singular menu or embodiment, the Petition described how “the standby screen or at least portions thereof” would be blurred in response to “Ahn’s ‘touch and drag’ gesture.” *Id.*; EX1023, [51].

For claim 208, the Petition integrated Shiplacoff into its earlier a combination. *See* Petition, 50-68. The Petition explained that “[t]he fundamental aspects of Ahn’s disclosure would remain intact, bolstered by the well-known, beneficial, and complementary teachings of Chaudhri-842 (*e.g.*, transitions in optical intensity during transitions in under interface states to provide visual cues and feedback to the user) and Shiplacoff (*e.g.*, for launching and navigating

between multiple active applications/functions/activities).” Petition, 38. In other words, the combination with Shiplacoff did not change the underlying characteristics of the Ahn-Chaudhri combination used to analyze claim 2. EX1023, [52].

Where the analysis of claim 208 diverged from the analysis of claim 2, the Petition explained the divergence. For example, the Petition explained that “[a] POSITA would have found obvious that in those implementations that include a graphic shadow 1800, it is also an *object*, as in Element [2.b].” Petition, 51 (citing to the Petition’s earlier description of “a POSITA’s understanding of the term ‘object’”). Elsewhere, the analysis of dependent claim 208 maintained the analysis provided with respect to claim 2. EX1023, [53].

For example, the “gesture” described in the analysis of claim 208 is still a touch and drag operation to open a menu—in this case a swipe up to open the multi-tasking menu described by Shiplacoff. *See* Petition, 40. In another example, Element [208.h] refers back to “the at least portion of the at least one other object that is blurred” recited in claim 2 and maintains that the “one or more elements of standby screen 300” described with respect to claim 2 are progressively blurred. *See* Petition, 64-67; EX1023, [53].

Smith criticizes that the examples utilized in describing the operation of the combinations “start on two different interfaces.” Petition, 83-85. However, Smith

fails to point to any element in claim 2 that dictates what is displayed at the time that the gesture is detected. *See id.* Absent such a limitation, the analysis of independent claim 2 turning to Ahn’s standby screen as an example starting point for the detected gesture when explaining the obviousness of Elements [2.a] to [2.d] is compatible with the analysis of claim 208 turning to Shiplacoff’s full screen mode as an example starting point for the detected gesture when explaining the obviousness of Elements [208.a]-[208.i]. EX1023, [54]. For example, Element [2.b] recites “display an object and at least one other object,” but does not limit when the object and at least one other object are displayed or even that they be displayed simultaneously. EX1023, [54].

B. The Swipe-Up Gesture of the Ahn-Chaudhri-Shiplacoff Combination Would Have Progressively Blurred One or More Elements of Standby Screen

Smith argues that “Petitioner does not even allege that its ‘swipe up’ gesture would blur the at least one other object (i.e., clock widget) based on a change in a magnitude of the gesture being detected.” POR, 85. However, as explained in §IV.A, *supra*, the claim 208 analysis left intact the analysis of claim 2 except where it explained differently. EX1023, [55]. Thus, with respect to Element [208.h], the Petition maintained its reference to the “one or more elements of standby screen 300” with respect to the claimed “at least portion of the at least one other object that is blurred,” leaving intact the Petition’s explanation with respect

to Element [2.d] of how and why the one or more elements of standby screen 300 are blurred. *See, e.g.*, Petition, 28 (describing that “as a translucent menu slides onto the screen in correspondence with the magnitude of the touch and drage [sic] gesture, the translucent menu would correspondingly progressively blur the portion of the background over which the menu is displayed”), 32 (explaining how “Chaudhri-842 describes differentiating between a menu and a background displayed on the touch screen during its user interface state transition process”); EX1023, [55].

Smith goes on to argue that “Petitioner’s alleged operation would not blur the clock widget.” POR, 85-88. Similar to its mistaken arguments with respect to Ahn (§II.A, *supra*), Smith again assumes Shiplacoff limits its system to transitioning to card mode only after a gesture is input. *Id.* However, as described previously, the analysis of claim 208 was with respect to the Ahn-Chaudhri-Shiplacoff combination as a whole, and Shiplacoff operates in much the same manner as Ahn and Chaudhri-842 with respect to how the user interface responds to a user’s gesture. *See generally* Petition, 38-40, 50-68.

Shiplacoff describes that “[o]ne skilled in the art will recognize...that the invention can be practiced in many other contexts, including any environment in which it is useful to switch easily and smoothly from one activity to another.” EX1013, [0062]. One way that Shiplacoff describes smoothly transitioning from

one activity to another uses a “transition effect” (*see* EX1013, [0094]), and describes that “a transition effect is performed when switching from one mode to another” (*see* EX1013, [0124]). EX1023, [57]. And Smith admits that Shiplacoff teaches moving user interface objects in direct proportion to a user’s gesture. *See* POR, 79-80 (acknowledging that “card 301B is moved in a first direction (upward) from FIG. 9A to FIG. 9B”); EX2009, 79:19-80:11 (Smith’s counsel explaining in deposition that “when rearranging card [in card mode], the user doesn’t release the card when it moves upward, but holds it to be dragged to a new position”). Accordingly, Shiplacoff’s teachings further support graphically displaying a menu “as sliding onto the display based on a change in a magnitude of the ‘touch and drag’ gesture being detected on the touch screen,” as explained with respect to [2.d]. *See* Petition, 27-28; *see also id.*, 51-52 (explaining how “Shiplacoff’s card mode is a type of menu”); EX1023, [57].

C. Shiplacoff’s Card Mode Would Have Operated as One of Ahn’s Menus with and Identifier Like Graphic Shadow 1800

With respect to how the Ahn-Chaudhri-Shiplacoff combination would display card mode, Smith asserts that “Petitioner and its expert provide no motivation for its modification to blur the area between the cards and merely concludes such a modification was obvious and would arrive at the claimed features.” POR, 88-90. However, the Petition explained how “[a] POSITA would have found obvious that Shiplacoff’s card mode is a type of menu” (Petition, 51-

52) and how, “[i]mplemented in the manner of Ahn’s translucent menus,... a POSITA would have at least found it obvious that Shiplacoff’s card mode would be displayed ‘on’ the standby screen 300 in a translucent form, such that the area between the displayed cards would show a blurred standby screen 300” (Petition, 64-67). In other words, the Petition turned to the references themselves to explain how and why a POSITA would implement the Ahn-Chaudhri-Shiplacoff combination as described. EX1023, [58].

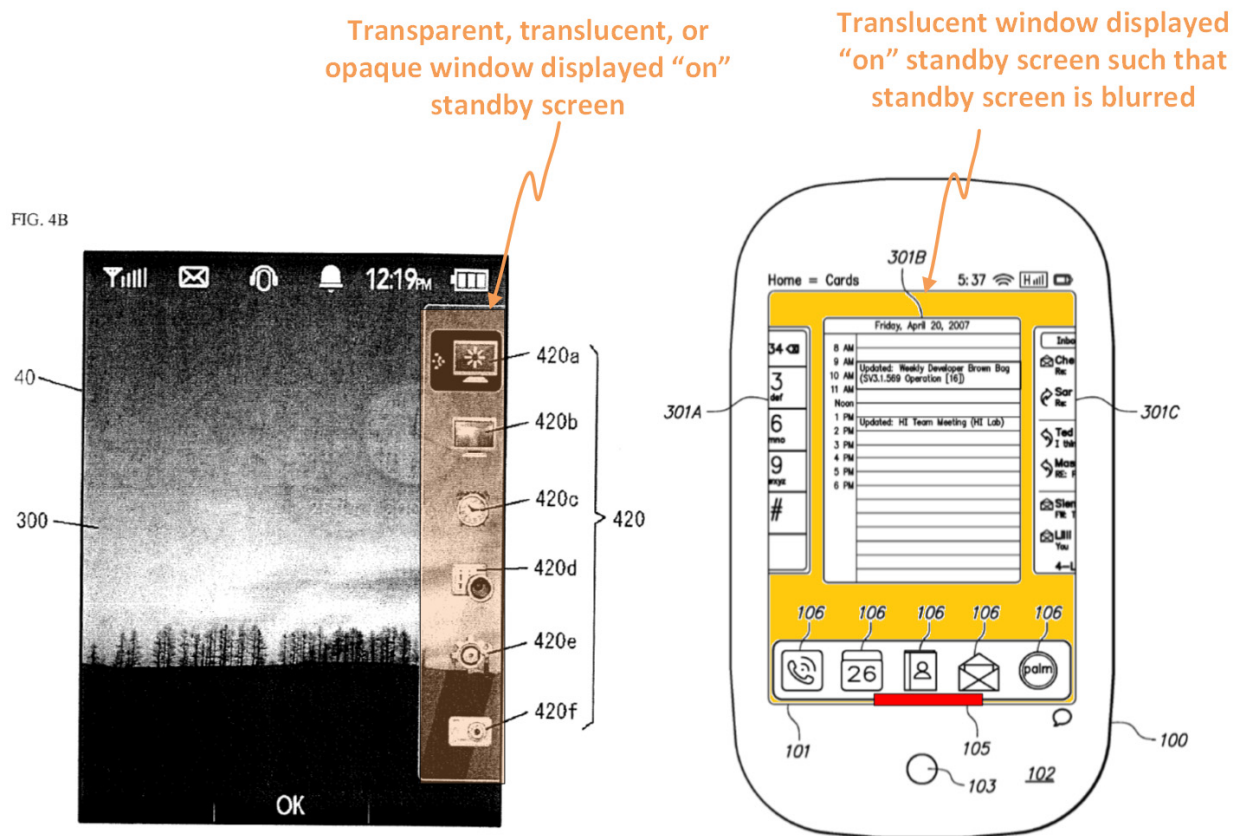
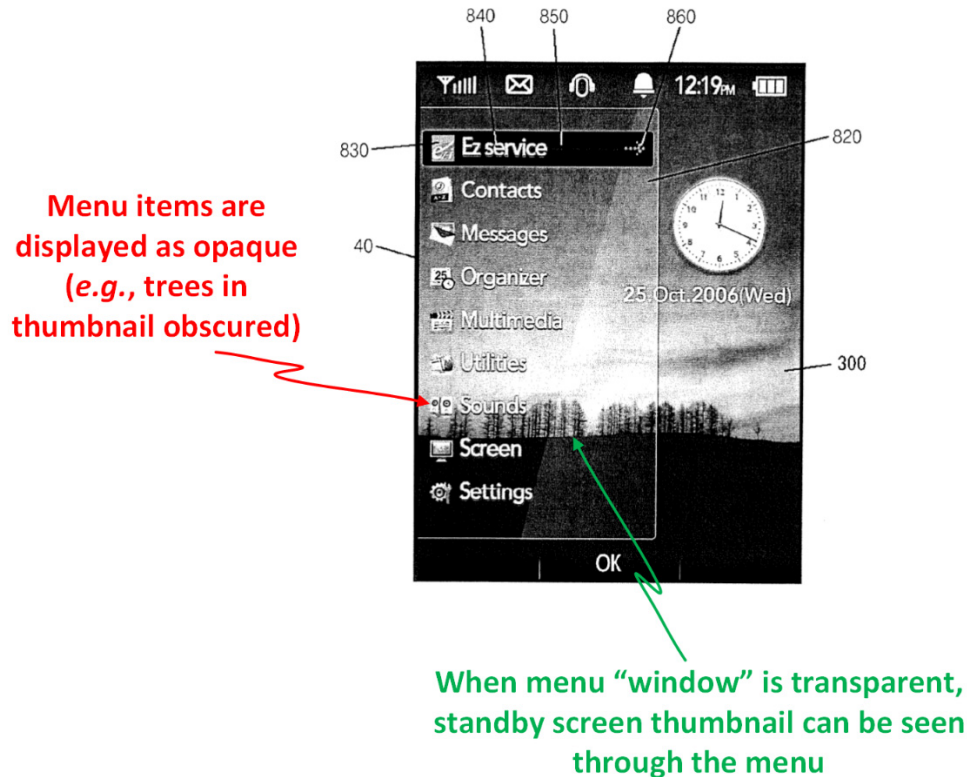


FIG. 3

Recognizing this, Smith goes on to allege that the Petition “mischaracteriz[es] the teachings of the references and combin[es] disparate

portions of the references in a manner contrary to their disclosure.” POR, 90. As support for this allegation, Smith first argues that “neither Petitioner nor its expert explain why a POSITA would deviate from Ahn’s teachings [by making] a ‘menu’ both translucent and opaque.” *Id.* However, the Petition relied upon Ahn’s teaching that menus may be displayed as transparent, translucent, or opaque “windows.” *See* EX1004, [0038]-[0039] (describing menus as a “pop-up window”), [0070]; EX1023, [59]. Ahn does not teach that the entire menu is “transparent” (or translucent) only the underlying “window” is. *See, e.g.*, EX1004, FIG. 8C (reproduced below); EX1023, [59]. To implement the entire menu, including its menu items, as transparent (consistent with Smith’s argument), would have nonsensically made the entire menu invisible to the user. EX1023, [59].



Ahn (EX1004), FIG. 8C (Annotated)

In Shiplacoff's card mode, the cards are the menu items and the area between the cards would be the "window" described by Ahn as being transparent, translucent, or opaque. *See* Petition, 51-52 (describing how the various active applications/activities shown in Shiplacoff's card mode are the menu "options" or items); EX1023, [60]. Thus, consistent with the menus described by Ahn, a POSITA would have found obvious that Shiplacoff's cards would be displayed as opaque menu items, and the "window" on which the cards are displayed would be translucent and "displayed on" the standby screen. *See* EX1004, [0038]-[0039], [0070]; EX1023, [60].

Smith further argues that a POSITA would not have used Ahn’s “identifier for notifying the user [of] an item list matched to the specific direction” (*e.g.*, graphical shadow 1800) in the Ahn-Chaudhri-Shiplacoff combination. POR, 91-94. However, in support of this argument, Smith wrongly assumes that the swipe up gesture in the Ahn-Chaudhri-Shiplacoff combination would “begin in gesture area 102.” *Id.* However, the Petition did not rely upon Shiplacoff’s gesture area as part of the Ahn-Chaudhri-Shiplacoff combination (*see generally* Petition, 38-40), particularly because Shiplacoff itself does not require the gesture area 102. *See* EX1013, [0064]-[0065] (describing that only “one embodiment” includes a gesture area and the “present invention can be implemented, according to various embodiments, in any type of device having a touch-sensitive screen, and is not limited to devices having the listed functionality”); EX1023, [61].

Smith also alleges, with little to no contemporaneous evidence, that a POSITA would not have included Ahn’s identifier, because it would “divide [the swipe] gesture” between two operations and take up valuable screen space. POR, 92-94. However, these arguments are directly counter to similar prior art systems, where gestures started at or near an edge are differentiated from all other “commonly-available gestures” (*see, e.g.*, EX1010, 2:2:44-3:5) and affordances indicating the presence of menus are always displayed along each edge of the

display (*see, e.g.*, EX1011, [0018]-[0020]). EX1023, [62]. Accordingly, Smith's arguments are not consistent with the knowledge of a POSITA. *Id.*

V. Smith's Arguments Regarding Various Other Dependent Claims Are Similarly Inconsistent with the Prior Art

Smith argues that the Petition's analysis of various dependent claims "independently" fails for various briefly described reasons. *See* POR, 50-71, 96-97. These arguments fail for the same or similar reasons to those discussed above.

For example, with respect to dependent claims 37, 64, 75-79, 187, 189, and 223, Smith assumes that a POSITA would have implemented the combinations exactly as examples in the prior art used to explain aspects of the combination. POR, 51-55, 59-63, 67-71. These arguments inappropriately focus on "the disclosures of individual prior-art references, with little recourse to the knowledge, creativity, and common sense that an ordinarily skilled artisan." *Randall Mfg. v. Rea*, 733 F. 3d 1355, 1362 (Fed. Cir. 2013). Further, these arguments are inconsistent with the Petition's combinations, which, for example, do not require the specific menus and their associated items disclosed in Ahn to demonstrate obviousness. EX1023, [63].

With respect to dependent claims 67-74, 197, 201-204, and 216 Smith's arguments rely upon or extend arguments made with respect to other claims, each of which is rebutted above. *See* POR, 56-59, 63-67, 95-97; EX1023, [64]. For example, Smith's argument with respect to claim 197, rests on the same disproven

arguments related to claim 186. *See* POR, 56-57; EX1023, [64]. Similarly, Smith’s argument with respect to claims 67-74 and 201-204 rely upon its disproven assumption that the combination does not display the menu opening until after the gesture is completed. *See* POR, 56-59, 63-67; EX1023, [64]. And Smith’s argument with respect to claim 216 rests upon the disproven assumption that the combination requires a “separate gesture area 102.” *See* POR, 95-97; EX1023, [64].

With respect to dependent claims 199 and 210, Smith’s arguments misrepresent the breadth of Petition’s obviousness arguments. *See* POR, 57, 95; EX1023, [65]. For Smith’s arguments with respect to claims 199 and 210 focus solely on “varying the optical intensity of the clock widget” (POR, 57, 95), but the Petition explained how it would have been obvious “to vary...the optical intensity of the standby screen or at least portions thereof,” of which the clock widget may be only one example. EX1023, [65].

The Petition’s analysis of these dependent claims demonstrates how each is merely a predictable variation of the various display techniques described in the prior art. “If a person of ordinary skill can implement a predictable variation, § 103 likely bars its patentability.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 417 (2007).

VI. Conclusion

For the foregoing reasons, Petitioner respectfully submits that Smith's arguments are unavailing and the Challenged Claims are unpatentable.

Respectfully submitted,

Date: September 25, 2025

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CERTIFICATION UNDER 37 CFR § 42.24

Under the provisions of 37 CFR § 42.24(d), the undersigned hereby certifies that the word count for the foregoing Petitioner Reply to Patent Owner Response totals 7,942 words, which is less than the 8,000 allowed under the Board's April 8, 2025 Order (Paper 18) (citing EX3001).

Respectfully submitted,

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CERTIFICATE OF SERVICE

Pursuant to 37 CFR § 42.6(e)(4), the undersigned certifies that on September 25, 2025, a complete and entire copy of this Petitioner's Reply to Patent Owner's Response were provided by email to the Patent Owner by serving the correspondence address of record as follows:

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