

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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APPLE INC.,  
Petitioner,

v.

SMITH INTERFACE TECHNOLOGIES, LLC,  
Patent Owner.

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IPR2024-01256  
Patent 11,740,727

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

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**LIST OF EXHIBITS**

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| EX1001 | U.S. Patent No. 11,740,727                                                                                                         |
| EX1002 | U.S. Patent No. 11,740,727 File History                                                                                            |
| EX1003 | Declaration of Dr. Loren Terveen                                                                                                   |
| EX1004 | U.S. Publication No. 2008/0207188 to Hye Sang Ahn <i>et al.</i><br>("Ahn")                                                         |
| EX1005 | U.S. Publication No. 2007/0150842 to Imran Chaudhri <i>et al.</i><br>("Chaudhri-842")                                              |
| EX1006 | U.S. Publication No. 2011/0209093 to Kenneth P. Hinckley and<br>Koji Yatani ("Hinkley")                                            |
| EX1007 | U.S. Publication No. 2006/0015818 to Imran A. Chaudhri <i>et al.</i><br>("Chaudhri '818")                                          |
| EX1008 | Robert Kosara <i>et al.</i> , "Semantic Depth of Field," IEEE<br>Symposium on Information Visualization 2001, pp. 97-104<br>(2001) |
| EX1009 | New Oxford American Dictionary (3 <sup>rd</sup> Ed. 2010)                                                                          |
| EX1010 | U.S. Publication No. 2012/0304133 to Jennifer Nan <i>et al.</i><br>("Nan")                                                         |
| EX1011 | Certified translation of JP Published Patent Application No.<br>2002-55750 ("Hisatomi"), published February 20, 2002               |
| EX1012 | RESERVED                                                                                                                           |
| EX1013 | U.S. Patent No. 10,642,413 to Michael S Smith                                                                                      |
| EX1014 | U.S. Publication No. 2010/0066763 to Francis MacDougall and<br>Evan Hildreth ("MacDougall")                                        |

EX1015-1019      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](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      *Apple Inc. v. Smith Interface Technologies, LLC*, IPR2024-01119, EX2018

EX1028      *Apple Inc. v. Smith Interface Technologies, LLC*, IPR2024-01119, Paper 21

## **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 (2007). 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 in the specification), [0080] (“it should be apparent” that the process flow 600 “can include more or fewer operations”).

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 [1.d.i] and [1.d.ii] of independent claim 1 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.” EX1001, 102:41-50.

The Petition’s analysis of these Elements establishes 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, 38-41. The analysis further establishes that Chaudhri-842’s user interface state transition techniques would have informed how a POSITA would have implemented the blurring of Ahn’s background user interface objects (*e.g.*, clock widget) shown in Ahn’s figures. *See* Petition, 33-43.

**A. Ahn and Chaudhri-842 Render Obvious Menus Emerging onto the Display Simultaneous with the User’s Corresponding Drag Gesture**

Smith argues that “Petitioner must show” Ahn’s menu moves with the user’s finger as the user drags their finger across the display, yet “Ahn unambiguously uses ‘drag’ to describe the input—not any responsive movement of graphic 1800.” *See generally* POR, 29-35. Smith is incorrect on both counts. 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 a

combination of Ahn and Chaudhri-842 to render obvious the menu emerging onto the display simultaneous with the corresponding “touch and drag operation.” *See* Petition, 38-41.

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]<sup>1</sup>. 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, [10].

Indeed, Smith’s expert, Dr. Rosenberg, acknowledges that Ahn discloses animations for the menu emerging from the side of the display. *See* EX2006, [51] (“a POSITA would have understood that ‘as the user may press the graphic 1800 with a finger, the graphic 1800 gradually disappears in the display 40’ ... indicates programming logic that triggers an animation”); *see also* EX1027, [60], [90]; EX1028, 32. So even under Dr. Rosenberg’s interpretation of Ahn, the only

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<sup>1</sup> Emphasis added throughout unless otherwise noted.

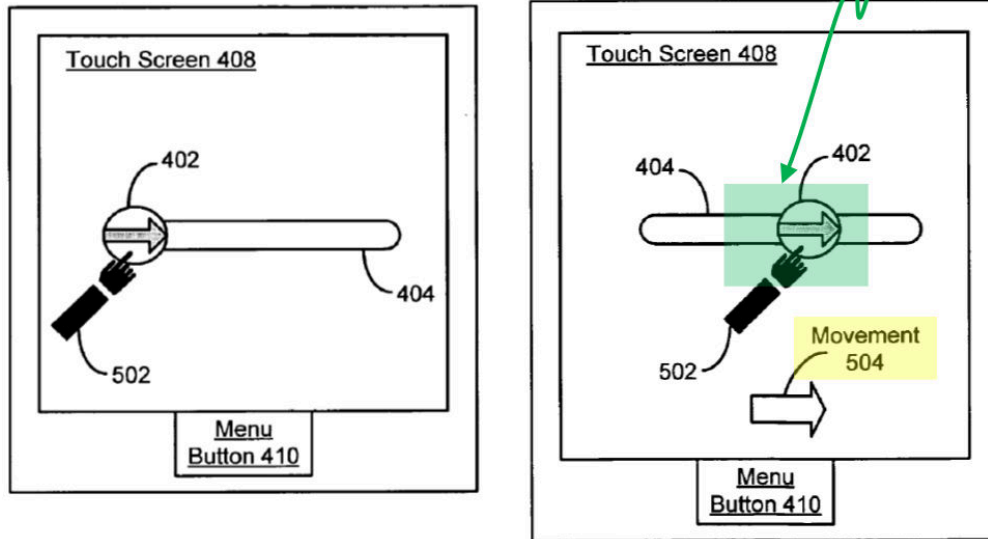
difference between Ahn and the claims is whether the animation occurs in direct correspondence with a user's dragging gesture or after the dragging gesture is complete—a straightforward design choice if there ever was one. EX1023, [11].

More importantly, the Petition's theories relied upon a combination with Chaudhri-842, not solely on the teachings of Ahn. EX1023, [12]. With respect to Element [1.d.i], the Petition applied the teachings of Chaudhri-842 “in the context of Ahn's ‘touch and drag’ gesture and Ahn's corresponding transition between a user interface state where the standby screen is displayed (*see, e.g.*, EX1004, FIG. 13a, 18(a)) and a user interface state where a menu list 1300 is displayed above or on top of the standby screen (*see, e.g.*, EX1004, FIG. 4B, 10, and 13b).” Petition, 38. In describing application of Chaudhri-842's teachings to Ahn, the Petition explained that Chaudhri-842 “teaches that the user interface may additionally include ‘cues’ to help the user know what gesture to utilize and whether they are correctly performing the gesture (*e.g.*, graphics such as movable images that, when **combined with the transition in optical intensity**, help the user visualize the correct gesture and how to complete it successfully).” Petition, 21 (citing EX1005, Abstract, [0054], [0062], [0073]). That is, the Ahn-Chaudhri combination described in the Petition and applied to Elements [1.d.i] and [1.d.ii] relied upon two user interface elements for visualizing the correct gesture: (1) “graphics such

as movable images;” and (2) a “transition in optical intensity.” *See id.*; EX1023, [12].

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]. Chaudhri-842 goes on to describe that “the 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..., 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 [], in the direction of movement” and an image being “dragged along...as a result of the gesture.” *See* EX1005, [0074]-[0079]; EX1023, [13].

**Graphic following user's finger  
during transition gesture**

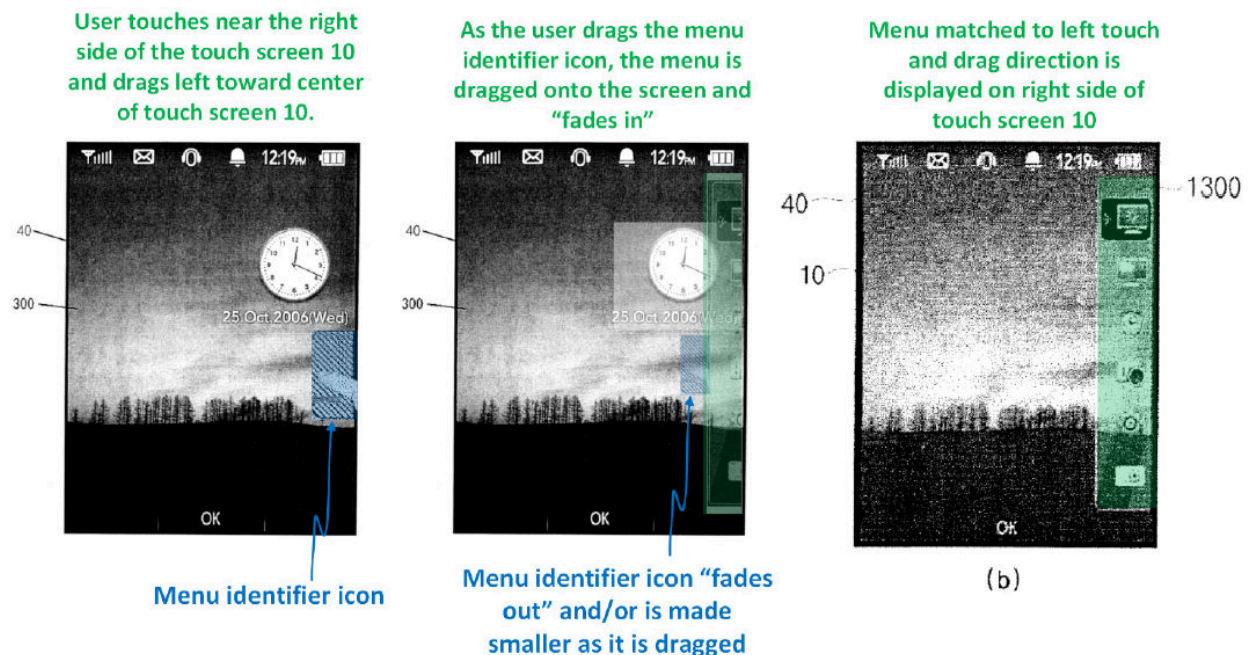


**Chaudhri-842 (EX1005)**  
**FIGS. 5A and 5B (Highlighted and Annotated)**

There can be no credible argument against Chaudhri-842 explicitly describing and illustrating an image following a user's finger. EX1023, [14]. A POSITA would have understood and found obvious that the purpose of Chaudhri-842's visual cues (*e.g.*, the unlock image) 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, [14]. 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.

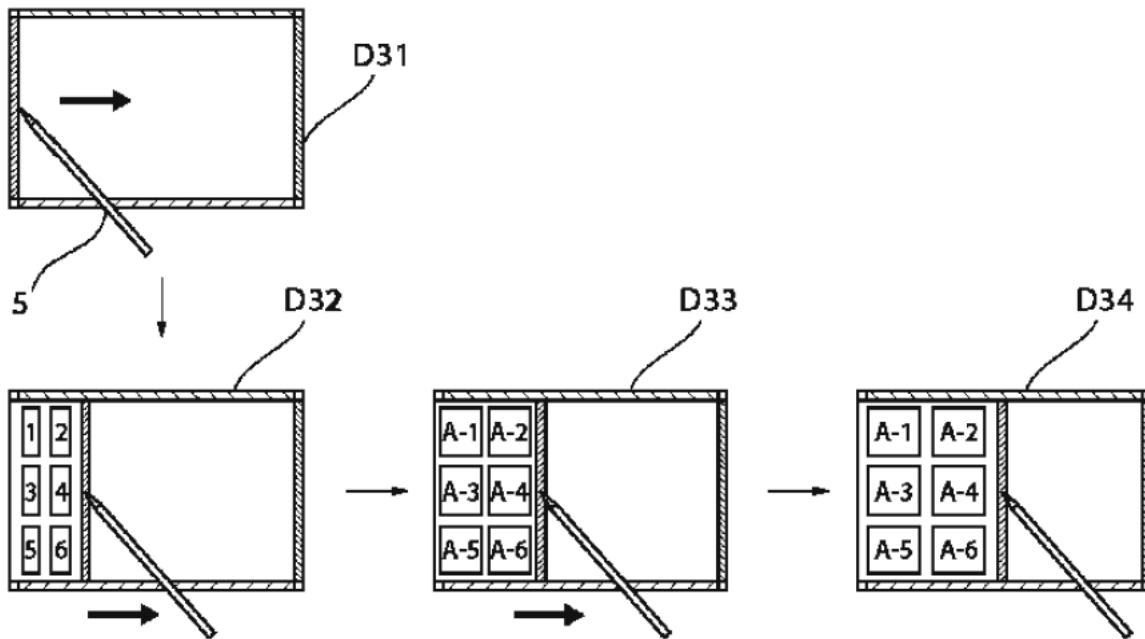
EX1004, [0117]-[0118]; EX1005, [0074]-[0075]; EX1023, [14]. While the gesture is being performed, the graphic shadow 1800 is dragged along as a result of the gesture and the menu is “displayed along the dragged graphic 1800.” *Id.* An example of this is shown below in the diagram of the Ahn-Chaudhri combination provided in the Petition<sup>2</sup>. See Petition, 49.



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

<sup>2</sup> The Petition’s diagram of the Ahn-Chaudhri combination directly contradicts Smith’s assertion that “the Petition does not articulate any modification of Ahn’s graphic 1800 based on Chaudhri.” POR, 38-39.

known in the art, as evidenced by other references cited in the Petition. For example, Hinckley describes the opening of a menu from the side of a display similar to Ahn and teaches that the menu “slides out and tracks with the user’s finger.” EX1006, [0080]. And Hisatomi describes “displaying [a] pull-out menu” such that “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, [15].



**Hisatomi (EX1011), FIG. 21**

This is further corroborated by Nan, which describes an example of “edge gestures” that open a menu, and that a 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 (describing that an “options menu” may

be displayed), 6:65-7:8; EX1023, [15]. “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 (e.g., to a mouse point or person’s finger making the gesture).” *Id.*

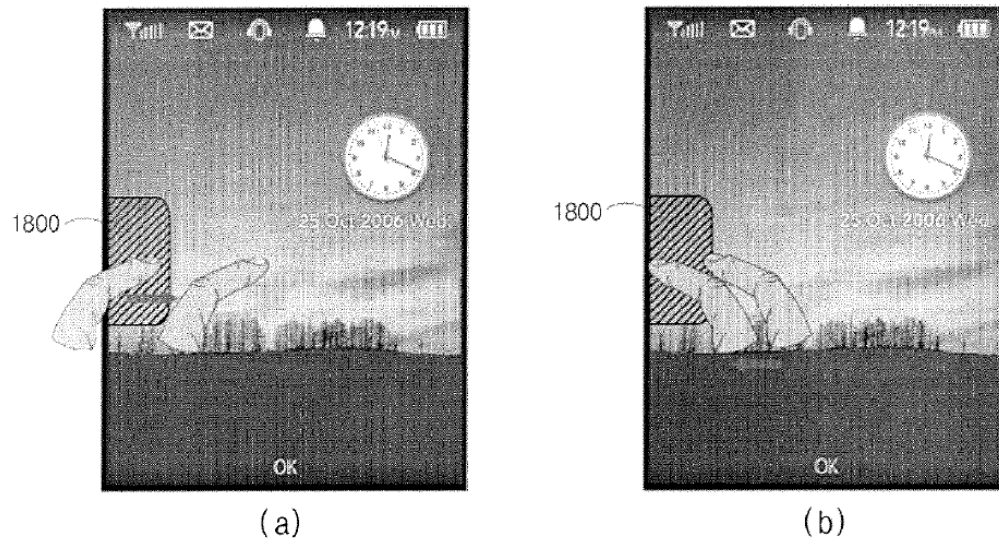
Thus, as explained in the Petition, “[a] POSITA would have found obvious from these teachings that ... Ahn’s menu list would have been graphically displayed as emerging onto the display based on a change in a magnitude of the ‘touch and drag’ gesture being detected on the touch screen.” Petition, 28; *see also* EX1023, [16].

**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 supporting Smith’s flawed positions. *See* EX1024, 98:17-116:12.

FIG. 18



**Ahn (EX1004), FIG. 18**

Specifically, over the course of the deposition, Dr. Rosenberg took no less than four different positions regarding how a user would open a menu through interaction with Ahn’s graphic shadow 1800.

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. Ahn-Chaudhri Renders Progressively Varying the Optical Intensity of Objects in Correspondence with a User's Input Obvious**

Smith argues that “Petitioner’s modification is the opposite of what Chaudhri teaches” because “Chaudhri-842 does not vary the optical intensity of a background,” and instead “teaches varying the optical intensity of foreground UI elements.” POR, 38-39, 44-51. Smith asserts “Ahn’s clock widget is part of the background, as conceded by Petitioner.” POR, 45. 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, 19. 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.*, 30-31. And, as explained on pages 30-31 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.* In other words, there is no indication that Chaudhri-842 intended to limit its changes in optical intensity to “foreground” objects, as Smith alleges. EX1023, [18].

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,” Dr. Terveen explained, “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]. In the combination, Ahn’s FIG. 18a is a first user interface state, which includes graphical shadow 1800 and user interface objects associated with the standby screen (*e.g.*, the clock widget) that “fade out.” *See* Petition, 38 (describing a “transition between a user interface state where the standby screen is displayed...and a user interface state where a menu list 1300 is displayed above or on top of the standby screen”); EX1023, [20].

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 “foreground” user-

interface objects or exclude the optical intensity of the background or portions thereof from also changing to further the visual differentiation. *See* EX1005, [0085]; *see also id.*, [0033] (describing “all of the visual output [to touchscreen 126] may correspond to user interface objects”), [0060]; EX1004, [0055], (describing Ahn’s standby screen as an “image”); EX1023, [19], [21]. Thus, Chaudhri-842 directly supports the Petition’s combination.

**D. None of Smith’s Arguments Rebut the Petition’s Motivations to Combine Ahn and Chaudhri-842**

The Petition provided four motivations to combine Ahn and Chaudhri. Petition, 19-23; POR, 16. With respect to the first motivation to combine, Smith argues that “[b]ecause Ahn already describes how ‘its user interface may utilize’ translucency [*i.e.*, with a translucent menu] and Petitioner identifies no deficiency with this method, Petitioner fails to articulate why a POSITA would have a motivation to look to Chaudhri for a second way to ‘utilize blur.’” POR, 17-18. However, this argument runs directly counter to Ahn’s figures. EX1023, [23]. While Ahn describes that the menu “can be ... translucent,” this is only one of several described implementations. EX1004, [0070]; EX1023, [23]. Ahn’s figures focus on another implementation in which the menus “are transparently displayed on the standby screen 300.” *Id.* For example, in FIGS. 4B, 10, and 13B, Ahn illustrates an implementation (relied upon in the Petition) utilizing transparent menus and blurring the clock widget. *See* Petition, 41-42.

FIG. 3A

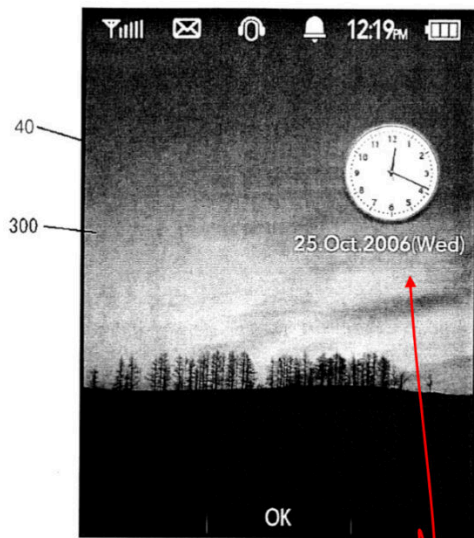
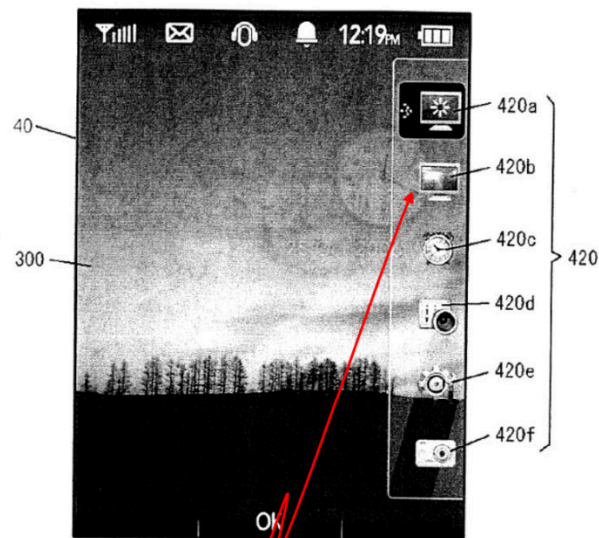


FIG. 4B



**Entire clock widget blurred when user menu 420 is opened, including portion not overlapped/obscured by the open menu**

In the proposed combination, a POSITA would have turned to Chaudhri-842 with respect to this explicit implementation of Ahn. Petition, 19-20. That Ahn illustrates and describes this implementation demonstrates its utility, but Ahn goes further to explain a benefit of a transparent menu: “the user can directly enter a menu related to the icon 330 while viewing the standby screen 300 in a standby screen state.” EX1004, [0039]. This benefit would not be achieved with either a translucent or opaque menu, so a POSITA seeking the benefit would not utilize a translucent menu, as Smith implies. *See* POR, 18; EX1023, [24]. Accordingly, the Petition’s first motivation stands, and it alone would have supported the Petition’s Ahn-Chaudhri combination.

With respect to the second motivation, Smith argues “the alleged ‘blur’ of Ahn’s clock widget during Ahn’s ‘touch and drag operation’ would not provide the user with any indication of progress of opening menu 420/1300.” POR, 22.

However, with this and similar arguments (*see* §II.A, *supra*), Smith erects and attacks a strawman. In describing the application of Chaudhri-842’s teachings to Ahn, the Petition explained that Chaudhri-842 “teaches that the user interface may additionally include ‘cues’ to help the user know what gesture to utilize and whether they are correctly performing the gesture (*e.g.*, graphics such as movable images that, when combined with the transition in optical intensity, help the user visualize the correct gesture and how to complete it successfully).” Petition, 21 (citing EX1005, Abstract, [0054], [0062], [0073]). In other words, the Petition does not solely rely upon the transition in optical intensity, but instead relies upon both the menu tracking the user’s finger during performance of the gesture and the transition in optical intensity to provide a visual indication to the user of their progress in completing the gesture, consistent with Chaudhri-842’s teachings. *See* Petition, 21, 38; EX1023, [25]-[26]. Accordingly, Smith’s repeated argument that the transition in optical intensity alone does not provide a visual indication to the user of their progress is inapposite. *See* EX1023, [25]-[26]

With respect to the fourth motivation, Smith argues “Petitioner provides no reason why—given that Ahn describes a way to implement ‘the blurring effect’—a

POSITA would have been motivated to look to Chaudhri for a different (and wholly unnecessary) way of implementing an alleged blurring effect.” POR, 19.

This argument places a burden on Petitioner that is not supported by the law of obviousness. As the Supreme Court explained “[w]hen there is a design need...to solve a problem and there are a finite number of identified, predictable solutions, a person of ordinary skill has good reason to pursue the known options within his or her technical grasp.” *KSR*, 550 U.S. at 421. In other words, a motivation exists where these conditions are met, as they are here.

Ahn presents a “design need” regarding how to transition, *e.g.*, its clock widget from fully visible to blurred when a transparent menu is opened, as shown in FIGS. 3A and 4B (reproduced above). *See* Petition, 19, 23; EX1023, [27]-[28]. As explained in the Petition, there are two ways to implement this transition and meet the design need: binary or progressive. Petition, 23; EX1023, [27]-[28]. The POR presents no further ways to implement the transition. *See* POR, 18-19, 27-28. Where, as here, two implementations “were both well known in the art, and were the only two identified, predictable solutions for” performing a function taught in the prior art, “it would have been obvious to substitute” one for the other. *Uber Technologies, Inc. v. X One, Inc.*, 957 F. 3d 1334, 1340 (Fed. Cir. 2020). Further, “[i]t’s not necessary to show that a combination is the best option, only that it be a suitable option.” *Intel Corp. v. Qualcomm Inc.*, 21 F. 4th 784, 800 (Fed. Cir.

2021). Accordingly, the Petition’s fourth motivation stands, and it alone would have supported the Petition’s Ahn-Chaudhri combination.

**E. The Petition Explains How the Ahn-Chaudhri Combination Increases Blurring as a Function of an Increase in the Distance Magnitude**

With respect to Element [1.d.ii], Smith argues that “Petitioner does not specifically address the part of the Limitation [1.d.ii] requiring the blurring to increase a[s] ‘a function of an increase in the distance magnitude.’” POR, 55. Not so.

For Element [1.d.ii], the Petition states: “As discussed with respect to Element [1.d.i], *supra*, 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, 41. Therefore, in addressing Element [1.d.ii], the Petition cites to Element [1.d.i], which further explains how the Ahn-Chaudhri combination renders obvious the blur increasing as a function of an increase in the distance magnitude. Specifically, in analyzing [1.d.i], the Petition discusses how, “[a]s the user input condition (*e.g.*, a gesture) progresses, the optical intensity can correspondingly vary in magnitude based on the magnitude of the progress toward gesture completion according to both linear and non-linear

functions, such as those illustrated in FIGS. 8A-8C” (citing EX1005, [0087]-

[0088]) and explains how these teachings apply to the context of the combination.

Petition, 38-39.

In the paragraphs cited for [1.d.i], Chaudhri-842 provides an example where, “if the gesture includes moving the finger from one edge of the screen to the opposite edge horizontally, then the indication of progress may be defined in terms of the **distance** between the two edges because the distance remaining objectively measures how much further the user has to move her finger to complete the gesture.” EX1005, [0088]. Smith’s arguments conveniently ignore these teachings, and instead focus on Chaudhri-842’s paragraph [0087] allegedly not describing a distance magnitude. *See* POR, 56-57.

Smith goes on to argue that “Chaudhri’s goals are completely oppos[ed]” to Ahn’s continued display of the background screen. POR, 58-60. However, in making these arguments, Smith focuses exclusively on certain example implementations described in Chaudhri-842 without accounting for its broader teachings.

With respect to FIG. 6, Chaudhri-842 teaches, “[w]hile an electronic device is in a first user-interface state, progress is detected (602) towards satisfaction of a user input condition needed to transition to a second user-interface state.”

EX1005, [0081]; *see also id.*, [0006] (“[m]ore generally, there is a need for more

efficient, user-friendly procedures for transitioning such devices, touch screens, and/or applications between user interface states”). While Chaudhri-842 teaches that, in “some embodiments,” this process may include transitioning between a lock and unlock screen or between a first and second application, Chaudhri-842 does not limit its teachings to these examples. *See id.*; EX1023, [33]. Rather, Chaudhri-842 is careful to broadly define a “user interface state [as] a state in which the device 100 responds in a predefined manner to user input.” EX1005, [0048]; EX1023, [33]. A POSITA would have understood that this definition encompasses the transition between states taught in Ahn. EX1023, [33].

That the user interface states illustrated in Ahn look different than the example user interface states in Chaudhri-842 is of no moment. EX1023, [34]. Ahn describes a transition between user interface states, so a POSITA would have understood that Chaudhri-842’s teachings regarding movable images and transitioning optical intensity are applicable. *See* EX1005, [0006], [0048], [0081]. That this is true in the context of Ahn is underscored by the fact that Ahn already illustrates transitioning the optical intensity of the clock widget. *See* EX1004, FIGS. 3A, 4B, 10, 13b; EX1023, [34].

### **III. Smith’s Arguments Regarding Various Other Dependent Claims Are Similarly Inconsistent with the Prior Art**

Smith provides additional arguments with respect to several dependent claims. *See* POR, 61-70. These arguments similarly fail.

With respect to Element [2.b] and claims 3 and 11-14, Smith assumes that a POSITA would have implemented the prior art disclosures (*e.g.*, Ahn’s menus and notifying indicators) exactly as they are illustrated and described, ignoring the fact that the illustrations are just examples not intended to limit the disclosures. POR, 61-63, 65-66, 69-70; 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 to provide an understanding of the invention), [0080] (“it should be apparent” that the process flow 600 “can include more or fewer operations”); EX1023, [36].

For example, with respect to [2.b], Smith argues that “Petitioner cites nothing in Ahn or Chaudhri to support that the object, *i.e.*, menu identifier icon/graphic 1800, is ‘displayed closer to the top edge of the touch screen than a bottom edge of the touch screen.’” POR, 61-62. Yet, the Petition cited to Ahn’s disclosure that “[a] position in which the item list is displayed in the display 40 can be preset” and explained that a “POSITA would have understood and found obvious that the position at which the menus are displayed (*e.g.*, at which edge) is a design choice.” Petition, 47 (citing EX1004, [0104]). 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).

Smith’s arguments with respect to claims 3 and 11-14 similarly do not account for the cited evidence.

With respect to Element [2.d], Smith’s arguments rely upon or extend arguments made with respect to independent claim 1, each of which is rebutted above. *See* POR, 63-65; EX1023, [38]. Specifically, Smith argues “Chaudhri does not vary the optical intensity of a background,” which was disproved in §II.C, *supra*. POR, 63-64.

With respect to claims 5, 6, and 17, Smith also argues that “Petitioner relies on arguments related to Limitation [2.c], e.g., menu identifier icon/graphic 1800 disappearing in Ahn’s paragraph 119, to teach that ‘an entirety of the object is blurred,’ but entirely fails to address blurring during ‘an initial portion of the change in the distance magnitude.’” POR, 66-67. This is incorrect. Smith acknowledges that the analysis of claims 5 and 17 incorporates the analysis of Element [2.c]. POR, 66. With respect to Element [2.c], the Petition goes on to explain that “the transition may appear to a user as though objects associated with the second user interface state (*e.g.*, the menu that’s opened in Ahn) ‘fade in’ while objects associated with the first user interface state (*e.g.*, the clock widget in Ahn and menu identifier icon) ‘fade out.’” Petition, 50 (citing EX1005, [0079],

[0087]). And with respect to limitation [1.d.i] (which is directly referenced in the analysis of claim 2, and from which claims 2, 5, 6, and 17 ultimately depend), the Petition explained that, “[a]s the user input condition (*e.g.*, a gesture) progresses, the optical intensity can correspondingly vary in magnitude based on the magnitude of the progress toward gesture completion according to both linear and non-linear functions, such as those illustrated in FIGS. 8A-8C.” Petition, 38. The paragraphs of Chaudhri-842 cited with respect to Elements [1.d.i] and [2.c] affirm that the fading “may be in accordance with” the gesture, and “is a function of the user’s satisfaction of the condition.” EX1005, [0079], [0087]; EX1023, [39]. Further, the associated figures (8A-8C) show that the “optical intensity” (*e.g.*, the “fading”) begins changing immediately and in correspondence with the gesture (*i.e.*, ***during at least a part at least an initial portion of the change in the distance magnitude***, as claimed). See EX1005, FIGS. 8A-8C, [0079], [0087]; EX1023, [39].

With respect to claim 6, Smith further argues that “Petitioner is blurring the ‘virtual display layer’ with graphic 1800, which contradicts the reasoning for blurring the standby screen 300.” POR, 68. Not so. As noted above, the Petition explained how and why “the transition may appear to a user as though objects associated with the second user interface state (*e.g.*, the menu that’s opened in Ahn) ‘fade in’ while objects associated with the first user interface state (*e.g.*, the

clock widget in Ahn and menu identifier icon) ‘fade out.’” Petition, 50 (analysis of [2.d]); *see also id.*, 53-56 (analysis of [6] referring to analysis of [2.d] and [5]).

This is consistent with Ahn, which shows the clock widget blurred when the menu is open (*see* EX1004, FIG. 4a) and describes the menu identifier icon disappearing (*see* EX1004, [119]). EX1023, [40].

The Petition’s analysis of the dependent claims demonstrates how each is merely a predictable variation of the display techniques described in the prior art. “If a person of ordinary skill can implement a predictable variation, § 103 likely bars its patentability.” *KSR*, 550 U.S. at 417.

#### **IV. Conclusion**

For the foregoing reasons, Petitioner respectfully submits that the Challenged Claims are unpatentable.

Respectfully submitted,

Date: September 26, 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 5,596 words, which is less than the 5,600 allowed under 37 CFR § 42.24(c)(1).

Respectfully submitted,

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**CERTIFICATE OF SERVICE**

Pursuant to 37 CFR § 42.6(e)(4), the undersigned certifies that on September 26, 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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