

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

MOTOROLA MOBILITY LLC AND GOOGLE LLC,
Petitioners,

v.

MULTIFOLD INTERNATIONAL INC. PTE. LTD.,
Patent Owner.

Case IPR2025-00040
Patent 9,134,756

EXHIBIT 2002

DECLARATION OF RAJEEV SURATI, Ph.D.

TABLE OF CONTENTS

	<u>Page</u>
I. INTRODUCTION	1
II. QUALIFICATIONS AND PROFESSIONAL EXPERIENCE	3
III. RELEVANT LEGAL STANDARDS	9
A. Burden of Proof	9
B. Obviousness (35 U.S.C. § 103).....	9
IV. LEVEL OF ORDINARY SKILL IN THE ART AND PRIORITY DATE	13
V. THE '756 PATENT	14
A. Overview of the '756 Patent and Invention	15
VI. CLAIM CONSTRUCTION.....	18
VII. SUMMARY OF THE PRINCIPLE APPLIED REFERENCE	19
A. Yook (Ex. 1004).....	19
VIII. CLAIM 5 IS PATENTABLE OVER THE PRIOR ART.....	20
A. Yook does not suggest “the visual indicator has a wave shape” as in claim 5.....	20
IX. CONCLUSION	26

I. INTRODUCTION

1. My name is Dr. Rajeev Surati. I have been retained as an expert witness to provide my independent opinion in regards with matters at issue in the *inter partes* review IPR2025-00040 concerning U.S. Pat. No. 9,134,756 (“the ’756 Patent”). I have been retained by Multifold International Inc. Pte. Ltd. (“Multifold”), the Patent Owner, in this proceeding. I have been informed that the Petitioners are Motorola Mobility LLC and Google LLC.

2. Unless otherwise noted, the statements made herein are based on my personal knowledge, and if called to testify about this declaration, I could and would do so competently and truthfully.

3. A detailed record of my professional qualifications including cases in which I was an expert is being submitted herewith as Exhibit 2003 and is summarized in Section II, *infra*.

4. I am being compensated for my work in this matter at the rate of \$665/hour. I am also being reimbursed for reasonable and customary expenses associated with my work and testimony in this investigation. My compensation is not contingent on the outcome of this matter or the specifics of my testimony.

5. I am not a legal expert and offer no opinions on the law. However, I have been informed by counsel of the various legal standards that apply, and I have applied those standards in arriving at my conclusions.

6. In this declaration, I have been asked to address certain invalidity opinions relating to the '756 Patent, specifically those provided by Google and Motorola in their Petition, Paper 1 ("Petition") challenging the '756 Patent and the accompanying declaration of Dr. Jeffrey Rodriguez, Ex. 1003 ("Rodriguez declaration"), regarding the alleged invalidity of the '756 Patent. The Petition and Dr. Rodriguez contend that claims 1-9 ("Challenged Claims") are unpatentable. This declaration addresses the validity of claim 5 only. I have not been asked to opine on the validity of any other claims, and I have not considered the validity of any other claims.

7. In this expert declaration, I provide my opinions in response to Grounds 2 and 8 for claim 5 in the Petition and the Rodriguez declaration, as well as the basis for my opinions. As I explain in detail later in this expert report, based on my study of the '756 Patent, the Rodriguez declaration, and various references cited by Petitioners and Dr. Rodriguez, it is my opinion that the cited references have deficiencies that do not render claim 5 unpatentable.

8. I have found limitations in claim 5 that are not disclosed by any reference or proposed combination of references. I identify these undisclosed limitations below. My decision not to address a limitation of a claim should not be interpreted as an admission that such a limitation is found in the art in the Ground(s)

cited by Petitioners and Dr. Rodriguez, or that a POSITA would have an apparent reason to combine or modify references in a manner meeting the limitation.

9. I submit this declaration having reviewed the '756 Patent, Claim 5, and the Yook reference cited by Petitioners in the Petition. The material I have considered includes but is not limited to the items set forth below:

MATERIALS CONSIDERED	
Paper 1	Petition
Ex. 1001	'756 Patent
Ex. 1003	Declaration of Dr. Rodriguez
Ex. 1004	U.S. Patent Application Publication No. 2010/0248788 ("Yook")

10. My opinions as set forth in this expert declaration are based on these sources of information, together with my education, training, and experience, including my work in the field of the '756 Patent.

II. QUALIFICATIONS AND PROFESSIONAL EXPERIENCE

11. My complete qualifications and professional experience are described in my Curriculum Vitae, a copy of which is submitted as Ex. 2003. The following is a brief summary of my relevant qualifications and professional experience.

12. I have provided my full background in the curriculum vitae included here as Exhibit 2003. My CV details my experience in electrical engineering and computer science and also includes a list of publications I have authored or co-authored.

13. I attended the Massachusetts Institute of Technology (MIT) from 1988 to 1999, during which, I earned a Bachelor of Science (1992), Master of Science (1995) and a Doctor of Philosophy (1999) in Electrical Engineering and Computer Science. My Ph.D. thesis was entitled “Scalable Self-Calibrating Technology for Large Scale Displays.”

14. Between 1989-1999 I was employed as a researcher/programmer at the MIT Artificial Intelligence Lab. At the lab I worked for Thomas F. Knight Jr. Ph.D., one of the noted inventors of the first bit mapped displays for computers as well as many other notable accomplishments. The lab is also noted for its excellence in machine vision.

15. In 1996 I began working on a Ph.D. thesis related to display of multimedia. My Ph.D. thesis system was a special kind of display allowing one to create ultra-high resolution displays composed of multiple projectors tiled with a slight overlap so that a camera-based feedback system could create an inverse map to drive the system such that a person would only see a continuous seamless display with no bezel or overlap. The camera-based system required imaging and decoding

of 2d fiducials, and thus I became an expert at machine vision for the purpose of decoding and encoding 2d fiducials such as bar codes – the optical systems involved, the systems programming, etc. Today, this technology is better known as automatic calibration for projection mapping or structured light. My experience, along with a patent I developed and licensed based on my Ph.D. thesis, were used to create a new startup company named Scalable Display Technologies that works with a variety of Pro AV display companies' products.

16. I am a named inventor on U.S. Pat. No. 6,456,339, "Super-resolution Display," which reflects my Ph.D. work.

17. In 2004, I founded Scalable Display Technologies (SDT), and I have been the President and Chairman of the company since the founding. Among its operations, SDT operates in the Audio Video domain and has licensed software and firmware to various companies including Hitachi and NEC. I also wrote a network-synchronized media playback system involving encoding and decoding of video and audio content as well as real time recording and video capture, a product known as "ScalablePlayer." This product was written on top of the DirectShow system from Microsoft. In conjunction with this, for some show demonstration systems, I wrote a desktop application in C# that allowed one to preview and select different inputs and outputs.

18. As part of this system I worked on several home theater systems that involved graphical user interfaces (GUIs) for displaying multimedia. These were computer systems and hardware systems that managed the input and display of content on 110 inch plus often curved screens. In these systems, GUIs managed the display of a multitude of input and output ranging from tv tuners, to cablebox input etc, to dvd and xbox360s.

19. Additionally, at SDT I have worked with most of the major video wall control manufacturers on customizing their displays. These include Jupiter Systems, RGB Spectrum Matrox, and Datapath. In addition, I helped architect and specify some special video wall GPU functions for both AMD and NVIDIA.

20. I have received additional patents, including: U.S. Pat. No. 8,817,111, "System and method of calibrating a display system free of variation in system input resolution"; U.S. Pat. No. 8,994,757, "System and method for providing improved display quality by display adjustment and image processing using optical feedback"; U.S. Pat. No. 9,215,455, "System and method of calibrating a display system free of variation in system input resolution"; U.S. Pat. No. 9,369,683, "System and method for calibrating a display system using manual and semi-manual techniques"; and U.S. Pat. No. 9,497,447, "System and method for color and intensity calibrating of a display system for practical usage."

21. As part of my work, I am familiar with user interfaces in digital displays as of October 2010.

22. In 2000, I started a company known as “photo.net” which was a large online photography community where I worked with many consumer electronics manufacturers in the digital camera business. There, I implemented a photo sharing system involving the delivery of multimedia content. Additionally, I worked on e-commerce capabilities that involved some product configuration options. The photo.net system includes user interfaces for sharing and displaying multimedia, as well as super high performance image encoding/decoding systems and real time delivery of high bandwidth content.

23. In 1996, I founded Flash Communications, which was focused on technology related to U.S. Pat. No. 5,943,478 and associated technology that I had developed related to pop-up two-way messaging over the Internet. I am one of the named co-inventors of U.S. Pat. No. 5,943,478, which is entitled “System for Immediate Popup Messaging across the Internet,” which describes a two-way messaging system like AOL Instant Messenger and MIT’s Zephyr service built at Internet scale.

24. In 1998, Flash Communications was sold to Microsoft Corporation, and Flash Communications’ messaging technology was incorporated into Microsoft’s Messenger service and Microsoft Exchange 2000 Instant Messaging Server.

25. While working at Microsoft between 1999 and 2000, I implemented an XML-based protocol that formed a basis for the Extensible Messaging and Presence Protocol (XMPP), which is now an IETF standard for the Exchange Instant Messaging Server. I participated internally with the program management team on helping specify this protocol for the IETF standardization process.

26. Also while at Microsoft, I invented and was named as an inventor on other patents related to instant messaging, including: U.S. Pat. No. 6,415,318, “Inter-enterprise messaging system using bridgehead servers”; U.S. Pat. No. 6,604,133, “Inter-enterprise messaging system using bridgehead servers”; and U.S. Pat. No. 6,260,148, “Methods and systems for message forwarding and property notifications using electronic subscriptions.”

27. Between 2000 and 2004, I worked as a consultant and investor at Nexaweb Corporation, where I helped implement several two-way messaging features over HTTP.

28. I am on the advisory boards of several technology companies, including UnifySquare, which is a unified communications/real time collaboration consultancy; Paneve, which develops general purpose ASICs coupled with compiler technology; Nexaweb, which develops real time web application frameworks using HTTPS; Antix Labs, which develops compiler technology for universal gaming platform; and Permabit, which develops content addressable storage.

29. For my contributions as an inventor and entrepreneur, I have received several awards, including the Global Indus Technovator Award 2009 and Laureate of 2009 Computer World Honors Program.

III. RELEVANT LEGAL STANDARDS

A. Burden of Proof

30. I understand that Petitioner has the burden of proving unpatentability by a preponderance of the evidence. 35 U.S.C. § 316(e). Preponderance of the evidence “means the greater weight of evidence, evidence which is more convincing than the evidence which is offered in opposition to it.” *Hale v. Dep't of Transp.*, 772 F.2d 882, 885 (Fed. Cir. 1985).

B. Obviousness (35 U.S.C. § 103)

31. I also understand that a patent may be rendered “obvious” based on an alleged prior art reference or a combination of such references in view of what a person of ordinary skill in the art would understand based on his or her knowledge and the references. I understand that a patent cannot be properly granted for subject matter that would have been obvious to a person of ordinary skill in the art at the time of the alleged invention, and that a patent claim directed to such obvious subject matter is invalid under 35 U.S.C. § 103. It is also my understanding that in assessing the obviousness of claimed subject matter one should evaluate obviousness over the prior art from the perspective of one of ordinary skill in the art at the time the

invention was made (and not from the perspective of either a layman or a genius in that art).

32. I have been informed that the following factors must be evaluated to determine whether the Petitioner has met its burden of proof that a claimed invention is obvious:

1. The scope and content of the prior art relied upon by Petitioner;
2. The difference or differences, if any, between each claim of the patent and the prior art;
3. The level of ordinary skill in the art at the time the invention of the patent was made; and
4. Any objective indicia of non-obviousness, such as: (1) commercial success of an embodiment; (2) a long-felt need; (3) skepticism; (4) failure by others to find the solution provided by the claimed invention; (5) copying by others of the subject matter of the claim invention; (6) unexpected results of the claimed invention; (7) acceptance of others and industry praise; and (8) licensing of the patents.

33. I have been informed that to prevail on obviousness the Petitioner must establish that (1) the prior art teaches or suggests each of the limitations of the claim; (2) there exists an apparent reason to combine and/or modify the prior art as proposed; and (3) a person of ordinary skill would have a reasonable expectation of

success that the proposed combination and/or modification of the prior art would operate for its intended purpose.

34. I have been informed that a claim is not proved obvious merely by demonstrating that each of the elements was independently known in the prior art. I have been informed that many, if not all, inventions rely on building blocks already known, and claimed inventions almost of necessity will likely be combinations of what is already known.

35. I have been informed that it is important in the obviousness inquiry to identify whether a POSITA at the time of the invention would have motivation to combine or modify the prior art references in the manner proposed by the Petitioner so as to arrive at the claimed invention. Put another way, a finding of obviousness should be supported by an apparent reason to combine or modify the prior art references as proposed by the Petitioner.

36. I have been informed that it is important in the obviousness inquiry that it is understood how the references are combined, including how the combination of references is supposed to work. An explanation of the operation of the combined references is often a prerequisite to determining whether a POSITA would have been motivated or had a reason to make the proposed combination/modification and would have had a reasonable expectation of success.

37. In assessing obviousness, I have been instructed to consider both the ordinary creativity and common sense of the person of ordinary skill in the art. I also understand that it is normally impermissible for common sense or common knowledge to be applied to fill gaps in prior art that fails to teach or suggest a limitation of the claim. I also understand that the obviousness inquiry should guard against hindsight bias or hindsight reconstruction where after-the-fact reasoning is applied to combine prior art elements using the claim as a template, without establishing that, as of the date of the invention, there exists a motivation to combine or apparent reason to combine or modify the prior art as proposed.

38. In assessing obviousness, I have been instructed that, in order to qualify as proper prior art for an obviousness analysis, a reference must qualify as analogous art. I have been informed that a reference qualifies as analogous art with respect to the claims if it is either: (1) from the same field or endeavor as the patent; or (2) the reference is reasonably pertinent to the particular problem addressed by the invention. I have also been informed that for a reference to be reasonably pertinent, it must logically have commended itself during the ordinary course of development to an inventor's attention in considering the problem.

39. In assessing obviousness, I have also been instructed that, as noted above, secondary considerations can often be probative evidence of non-obviousness

and can serve to avoid hindsight bias. I have been instructed that secondary considerations can be sufficient to overcome a prima facie case of obviousness.

IV. LEVEL OF ORDINARY SKILL IN THE ART AND PRIORITY DATE

40. My opinions in this declaration are based on the understandings of a person of ordinary skill in the art, which I understand is sometimes referred to as an “ordinary artisan” or by the acronym “POSITA” (Person of Ordinary Skill in the Art), as of the time of the invention. For purposes of this Declaration, I have been instructed to use October 1, 2010, as the time of invention (priority date), which I understand is the date that the Petitioners are using. *See* Pet., 5.

41. I understand that the person of ordinary skill in the art is a hypothetical person who is presumed to have known the relevant art at the time of the invention. By “relevant,” I mean relevant to claim 5 of the ’756 Patent.

42. I understand that, in assessing the level of skill of a person of ordinary skill in the art, one should consider the type of problems encountered in the art, the prior solutions to those problems found in the prior art, the rapidity with which innovations are made, the sophistication of the technology, the level of education of active workers in the field, and my own experience working with those of skill in the art at the time of the invention.

43. In this case, Petitioners assert that a person of ordinary skill in the art as of the time of the ’756 Patent “would have had an undergraduate degree in

electrical engineering, computer engineering, computer science or a related field along with two years of experience in the field of user interface technologies, including e.g., graphical user interface technologies, or a related field.” Pet., 20-21.

44. I have applied this definition in my analysis for the purposes of this declaration. I was at the time of invention, and am currently, one of more than ordinary skill in the art through my education, research, and work experience. As of the date of the invention, I was very familiar with the types of problems encountered in the field. Indeed, I am very familiar with people having this level of skill in the area of user interfaces and human-computer interaction in the field of display systems.

V. THE '756 PATENT

45. The Petition challenges claims 1-9 of the '756 Patent under eight grounds. I have only been asked to opine on the validity of claim 5. Therefore, the two Grounds relevant to my declaration are:

- Ground 2: Obviousness of claim 5 over Yook; and
- Ground 8: Obviousness of claim 5 over Purcell and Yook.

Pet., ii, v. Furthermore, I understand that the Petition alleges claim 5 is obvious in view of Purcell and Yook for the same reason that it is obvious in view of Yook. Pet., 88. Therefore, my declaration focuses on Yook’s disclosure.

46. I have not been asked to opine on the validity of claims 1-4 or 6-9, nor do I have an opinion as to the validity of these claims.

A. Overview of the '756 Patent and Invention

47. The '756 Patent relates to a “user device and methods for revealing a combination of desktops on single and multiple screens.” '756 Patent, abstract. Figure 1 shows an exemplary dual-screen device having a primary screen 104 (which comprises a display 110) and a secondary screen 108 (which comprises a display 114):

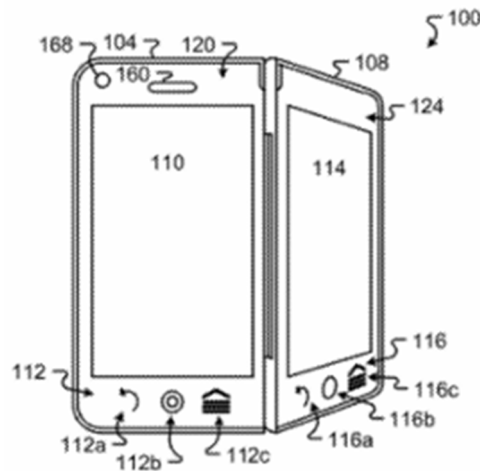


FIG. 1A

48. The '756 Patent states that a “determined number of desktops and/or running applications can be selectively displayed on dual screen displays conditioned upon inputs received and the state of the device.” '756 Patent, abstract. For example, a first desktop or application may be displayed on a primary display,

and a second desktop or application may be displayed on a secondary display, as shown in Fig. 10A:

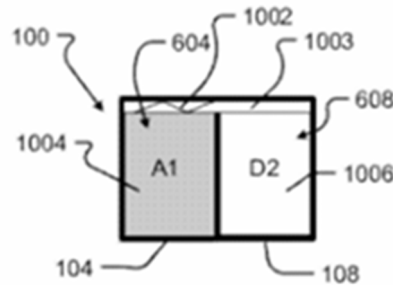


FIG. 10A

'756 Patent, 31:16-23.

49. A user may provide gestures and, based on the context of the gesture, the device may select a desktop or application to display on the first display ('756 Patent, 17:48-67), select a desktop or application to display on the second display (*id.*), maximize a desktop or application on both displays ('756 Patent, 31:43-53), or minimize an application displayed on both displays onto only the primary or secondary display ('756 Patent, 31:60-67).

50. Figure 10 shows examples of the functionality of a visual indicator 1002:

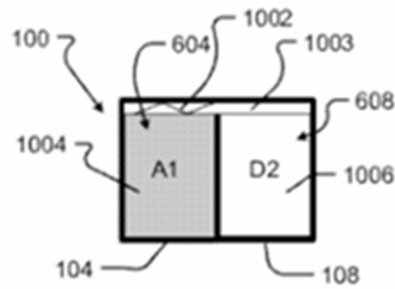


FIG. 10A

51. In some examples, visual indicator 1002 may be a wave shape. '756 Patent, 31:16-60. In Figure 10A, visual indicator 1002 is shown above application A1. In Fig. 10B, visual indicator 1002 expands with A1:

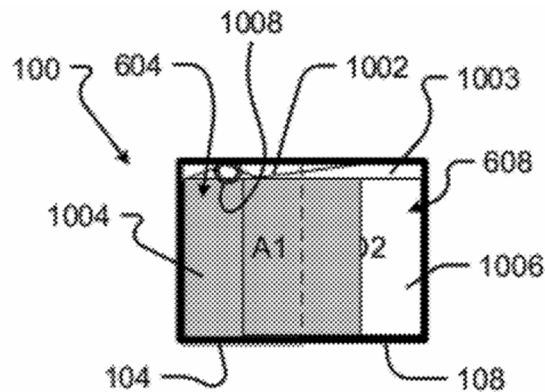


FIG. 10B

52. In Fig. 10C, A1 “fully occupies both the primary and secondary screens” and the visual indicator “also expands across both the primary and secondary screens”:

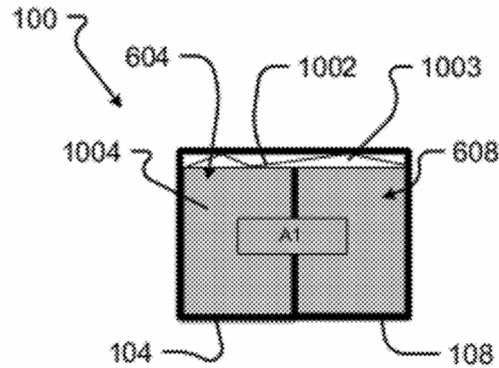


FIG. 10C

'756 Patent, Fig. 10, 31:54-59. "The visual indicator 1002 therefore also expands across both the primary and secondary screens, indicating that the user can now minimize this application by again executing another gesture." '756 Patent, 31:54-59.

VI. CLAIM CONSTRUCTION

53. I understand that claims of the patent-at-issue in this IPR are generally interpreted according to their ordinary and customary meaning in the art taking into consideration the so-called "intrinsic evidence" of the patent consisting of (1) the claim language; (2) the specification; and (3) the prosecution history.

54. I understand that claim terms may be explicitly defined in the patent specification, or they may be implicitly defined through consistent usage in the specification. I also understand that the scope of claim terms may be limited by statements in the specification or prosecution history where the applicant clearly

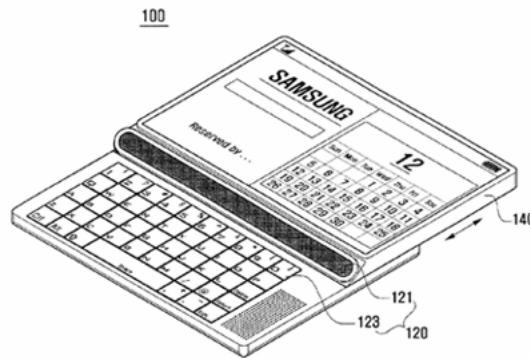
disavows or disclaims subject matter, acts as his/her own lexicographer or otherwise indicates the meaning of claim terms through statements made by the applicant.

55. I have applied the ordinary and customary meaning of the claim terms in establishing the patentability of the claims of the '756 Patent.

VII. SUMMARY OF THE PRINCIPLE APPLIED REFERENCE

A. Yook (Ex. 1004)

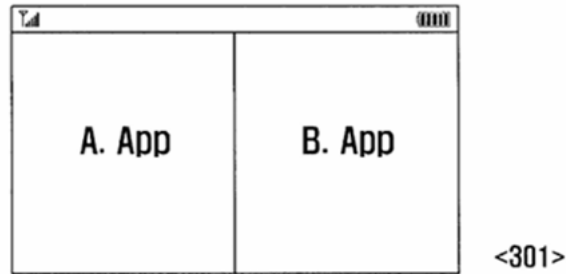
56. Yook describes a single-screen mobile terminal as shown in Fig. 1:



Yook, Fig. 1.

57. A screen 140 can be divided into multiple "screen areas," as illustrated in Fig. 3:

FIG . 3



Yook, Fig. 3.

58. Fig. 3 also shows a bar at the top of the screen, spanning across the entire screen. However, Yook does not specify how the icons on this bar are selected or displayed.

59. Fig. 4 in Yook’s disclosure illustrates possible functions for these divided areas. For instance, Fig. 4A shows the division of the touchscreen 140 into two areas A and B. Yook, 44. Fig. 4B demonstrates different display options: function A may occupy the entire touchscreen 140, function C may do the same, or the screen may be divided into two areas, with function A in one and function C in the other. Yook, 46.

VIII. CLAIM 5 IS PATENTABLE OVER THE PRIOR ART

A. Yook does not suggest “the visual indicator has a wave shape” as in claim 5

60. Claim 5 depends on independent claim 1 through claim 4 and further specifies that the visual indicator “signifying that a desktop or application appearing on that display can be maximized by a user gesture” of claim 4 “has a

wave shape.” In my opinion, Yook does not disclose or suggest a wave shape visual indicator.

61. A person of ordinary skill would understand that Yook does not explicitly or implicitly disclose a wave shape visual indicator. For instance, the Petition does not assert that claim 5 is anticipated by Yook. Pet., 21. There is no disclosure in Yook of any visual indicator or icon having a wave shape.

62. The Petition provides the following examples of “icons” in Yook “that are used to receive user gesture inputs”:



Pet., 43.

63. Notably, none of these icons have a wave shape.

64. The Petition asserts that the “shape taken by a visual indicator, or icon, is merely a matter of common and routine design choice” “because the shape of the visual indicator is merely a design choice and has no bearing on the functionality of the element.” Pet., 43, 87. In my opinion, the assertion that the shape of the visual indicator has no bearing on the functionality of the indicator is

inconsistent with the what is disclosed by the '756 Patent, as well as the knowledge of a person of skill in the art.

65. A person of ordinary skill in human-computer interaction would understand that icons (including those in Yook) provide a visual indication of a specific functionality associated with that icon. For instance, a person of ordinary skill would associate the icon ► with a playback feature. Indeed, Yook Figure 7 shows this icon as part of music file play view area 73. A person of ordinary skill would understand that this icon is associated with playing the music file in music file play view area 73. In the context of Yook, a person of ordinary skill would not associate this icon with indicating that a display may be maximized.

66. Similarly, the '756 Patent also discloses at column 31 lines 16-60 and Figure 10 that the wave shape imparts specific functionality to the visual indicator. The '756 Patent teaches that the wave shape indicator provides functionality to indicate whether the application may be minimized or maximized by expanding with the application, as shown in Fig. 10. Ex.1001, 31:23-27 (“Accordingly, in FIG. 10A, the indicator 1002 signifies that a user can maximize the application A1 in its current minimized state. The indicator 1002 is shown as having a wave shape that extends across the upper portion of the screen 104”), 31:54-59 (“The visual indicator 1002 therefore also expands across both the primary and secondary

screens, indicating that the user can now minimize this application by again executing another gesture.”).

67. This functionality of the wave shape indicator is also illustrated in Figures 10A-C. Figure 10A shows an application A1 on primary screen 104, before it has expanded to secondary screen 108:

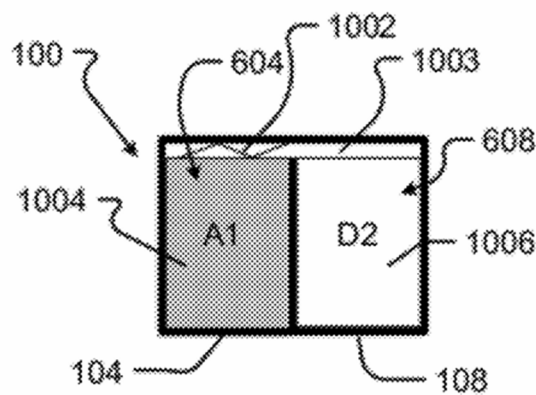


FIG. 10A

68. Here, the wave shape indicator 1002 is directly above primary screen 104.

69. Next, in Figure 10B, application A1 has expanded from primary screen 104 to secondary screen 108:

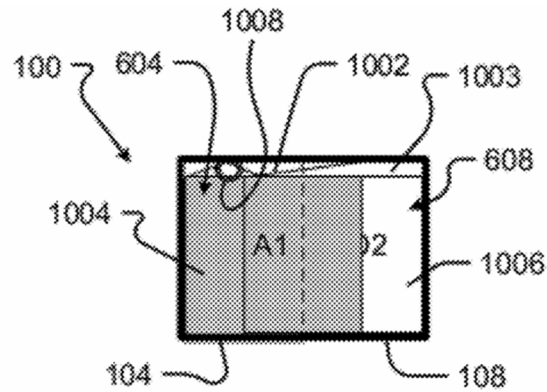


FIG. 10B

70. Figure 10B shows that the wave shape indicator 1002 has similar expanded with the application.

71. Finally in Figure 10 C, application A1 occupies both the primary and secondary screens:

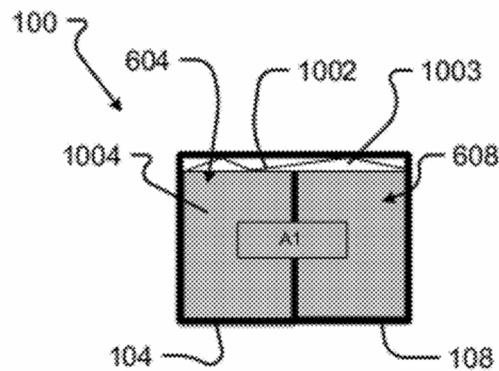


FIG. 10C

72. In Figure 10C, the wave shape indicator 1002 has also expanded across both the primary and secondary screens.

73. A person of ordinary skill would understand from these figures and disclosure that the functionality of the wave shape indicator is to indicate whether

the application may be minimized or maximized by expanding with the application. This is further confirmed by the specification of the '756 Patent: “The visual indicator 1002 therefore also expands across both the primary and secondary screens, indicating that the user can now minimize this application by again executing another gesture.” Ex.1001, 31:54-59.

74. From these disclosures, a person of ordinary skill would know that the wave shape is suitable for expanding with the application because it expands as shown in Fig. 10. The person of ordinary skill would thus understand that a wave shaped visual indicator is a specific functional embodiment of a visual indicator that can expand with the application.

75. In my opinion, the Petition has not shown that any of the “icons” identified on page 43 shares the functionality of the wave shaped indicator recited by Claim 5. A person of ordinary skill would not expand any of the “icons” identified on page 43 in the manner described by the '756 Patent for the wave shape indicator. For instance, expanding any of the “icons” identified on page 43 to span across multiple displays would stretch the text and visuals and render them difficult to impossible to read:



76. By contrast, Figure 10 of the '756 Patent shows that a wave shape indicator is expandable as the application expands. Therefore, a person of ordinary

skill would have no reason to use any of the icons identified on page 43 in the manner of the wave shaped visual indicator of claim 5.

77. For these reasons, it is my opinion that Yook does not suggest a visual indicator signifying that a desktop or application appearing on that display can be maximized by a user gesture that has a wave shape as in claim 5.

IX. CONCLUSION

78. I hereby declare that all statements made herein of my own knowledge are true and all statements made herein on information and belief were and are believed by me to be true, and that all statements herein were and are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code and that any such willful false statements may jeopardize the validity of the application or any patents issued thereon.

Respectfully submitted,



Rajeev Surati, Ph.D.

Dated: August 25, 2025