

**EXHIBIT 13**  
**FILED UNDER SEAL**

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UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA  
SAN JOSE DIVISION

APPLE INC., a California corporation,  
  
Plaintiff,  
  
v.  
  
SAMSUNG ELECTRONICS CO., LTD., A  
Korean business entity; SAMSUNG  
ELECTRONICS AMERICA, INC., a New York  
corporation; SAMSUNG  
TELECOMMUNICATIONS AMERICA, LLC, a  
Delaware limited liability company,  
  
Defendants.

Case No. 11-cv-01846-LHK

**DECLARATION OF DR. KARAN  
SINGH, PH.D. IN SUPPORT OF  
APPLE’S OPPOSITION TO  
SAMSUNG’S MOTION FOR  
SUMMARY JUDGMENT**

**\*\*CONFIDENTIAL – CONTAINS MATERIAL DESIGNATED AS HIGHLY  
CONFIDENTIAL – ATTORNEYS’ EYES ONLY PURSUANT  
TO A PROTECTIVE ORDER\*\***

**SUBMITTED UNDER SEAL**

1 relevant to this litigation). For convenience, I will refer collectively to these three pieces of  
2 alleged prior art as “LaunchTile” except when discussing content or functionality that is specific  
3 to one of them.

4 90. I incorporate here by reference the arguments for validity over LaunchTile made in  
5 paragraphs 29-38 of my Validity Report. (Ex. 2.) I made these arguments in my Validity Report  
6 in the context of claim 2, but they apply equally to claim 50, which has claim limitations  
7 substantially identical to those in claim 2. Mr. Gray agrees that “Claim 2 is a ‘computer  
8 implemented method’ claim, and generally tracks the language of independent claims 49, 50, 51,  
9 and 52.” (Bartlett Decl. Ex. 31 ¶ 289.) Claim 50 requires one or more programs including  
10 “instructions for” performing each of the method steps described in claim 2. LaunchTile fails to  
11 anticipate claim 50 for at least the same reasons that it fails to anticipate claim 2.

12 **A. Overview of LaunchTile**

13 91. LaunchTile is a research prototype system that provides the ability to launch 36  
14 applications via tiles presented using a display abstraction that its authors call an “interactive  
15 zoomspace.” (Bederson Decl., Ex. A at 204.) The zoomspace provides three levels of display: the  
16 World View, which displays application tiles (symbolic visual representations) corresponding to  
17 each of the 36 applications in a 6-by-6 grid; the Zone View, which displays four application tiles  
18 with additional application-related content in a 2-by-2 grid; and the Application View, which  
19 launches and allows a user to interact with each application itself. Clicking or tapping on a  
20 location in the World View initiates an animation that fills the screen with a Zone View  
21 rendering—distinct from the content displayed in the corresponding portion of the World View—  
22 of the four application tiles around the location of the user’s touch. Once the Zone View is  
23 rendered, clicking or tapping on one of the four displayed application tiles launches the  
24 application—for example, an email client application or a mapping application—to which the  
25 selected application tile corresponds.

26 92. As the above description suggests, LaunchTile targets an entirely different  
27 problem from the one that is solved by claim 50 of the ’163 patent: LaunchTile addresses the use  
28 of a fixed set of applications in a predefined layout, whereas the ’163 patent deals with reading

1 and navigating arbitrarily-sized structured electronic documents on a small screen. LaunchTile  
2 creates substantively different renderings of a fixed set of iconic application tiles. These tiles  
3 facilitate the launching of the applications to which the tiles correspond. Claim 50, by contrast,  
4 applies enlargement and translation to a unified, but arbitrarily sized, structured electronic  
5 document to aid a user’s viewing of areas of interest in that document. LaunchTile fails to  
6 disclose multiple elements of claim 50, as the analysis that follows will demonstrate.

7 **B. Claim 50, Element [b]**

8 93. LaunchTile does not disclose the element of claim 50 of “instructions for  
9 displaying at least a portion of a structured electronic document on the touch screen display,  
10 wherein the structured electronic document comprises a plurality of boxes of content.”

11 94. According to Mr. Gray, LaunchTile displays a structured electronic document in  
12 the World View. (Gray Decl. ¶ 76 (“It is my opinion that this 6x6 zoomspace is a ‘structured  
13 electronic document’ with 36 embedded Application tiles, each of which is also a structured  
14 electronic document.”).) I disagree. As I opined in my deposition in response to Samsung’s  
15 questioning on this point (Gray Decl. Ex. 6 at 171:14-176:15), the mere fact that LaunchTile  
16 arranges a set of otherwise conceptually independent application tiles into a grid for display does  
17 not automatically qualify that collection as a single electronic document.

18 95. In my opinion, those of skill in the art of the ’163 patent would understand that  
19 there must be some conceptual relationship or commonality in the information in a “document”  
20 that is sufficient to justify treating that information as a single, discrete entity. For electronic  
21 documents, the classic indication of such a relationship is the storage of information in a single  
22 file, such as a text file, an image file, an HTML file, or a spreadsheet file. Where a single file is  
23 not present, information must be related in a conceptually equivalent way to be considered a  
24 “document.”

25 96. As I discussed in my Infringement Report, the display of a web page, such as the  
26 *New York Times* home page, in a mobile device’s web browser is a paradigm example of the  
27 display and navigation of a structured electronic document that the ’163 patent targets. The *New*  
28 *York Times* home page is a structured electronic document that includes several boxes of content

1 that mobile devices—including Apple’s iOS products and the Samsung Accused Products—can  
2 display on their touch screen displays. These devices detect a user’s double tap gesture (two taps  
3 on the touch screen in quick succession) on a box of content, and respond to that gesture by  
4 determining which box was tapped and then enlarging and translating the web page to  
5 substantially center that box on the screen. If the user proceeds to double tap on a second box of  
6 content on the web page, the web page is translated to substantially center that second box on the  
7 screen.

8           97. The various application tiles that LaunchTile is programmed to display together to  
9 create the World View screen are not one electronic document. The different applications that  
10 these tiles represent are entirely conceptually independent of one another: they are separate  
11 programs designed to run independently and accomplish different tasks. LaunchTile purposely  
12 uses different levels of abstraction to provide three different layers of information about a fixed  
13 number of application programs. At each layer the system displays different content distinct from  
14 the content in other layers, and it launches distinct application programs when an individual tile is  
15 touched.

16           98. My review of the XNav source code, which I understand is functionally equivalent  
17 in the relevant respects to the code for the LaunchTile, confirms that the “interactive zoomspace”  
18 that Mr. Gray identifies as the structured electronic document displayed in the World View is  
19 actually just a programmatically assembled collection of separate image files representative of the  
20 36 disparate applications displayed in the World View. This is consistent with Dr. Bederson’s  
21 own description of LaunchTile. (Bederson Decl. ¶ 14 (“In our prototype implementation, the  
22 individual tiles in LaunchTile were typically represented by one or more image files (.png  
23 files).”))

24           99. Dr. Bederson and Mr. Gray attempt to manufacture a connection between the  
25 various application tiles in the World View by resorting to the idea that LaunchTile’s code for  
26 displaying these separate pieces assembles all of them into a “single, hierarchical object oriented  
27 data structure.” (Bederson Decl. ¶ 13; cited by Gray Decl. ¶ 77.) Such a data structure—which is  
28 a programming construct *created by LaunchTile* to facilitate display that could be populated with

1 arbitrary, unrelated content—is not an “electronic document” within the meaning of the ’163  
2 patent because it lacks the prior semantic association of its contents that a “document” requires.

3 100. Dr. Bederson’s inapt comparison of LaunchTile’s display-facilitating “data  
4 structure” to an HTML document (Bederson Decl. ¶ 13:9-12) highlights a key distinction between  
5 LaunchTile’s operation and the display of a true electronic document, such as the rendering of an  
6 HTML document in a web browser. Dr. Bederson claims that LaunchTile’s “**creating** [a] single,  
7 hierarchical object oriented data structure that is then translated into the visual representation  
8 displayed to the user” (emphasis added) is “similar to the process that occurs when a typical web  
9 browser application interprets and transforms the elements of a standard HTML document into  
10 what is known as a data object model that can then be visually presented to the user as a single,  
11 unified web page.” (*Id.*) A web browser, however, does not “creat[e]” the HTML documents  
12 that it displays. Rather, unlike LaunchTile—which creates at runtime (i.e., when the program is  
13 executed and the display is rendered) the “single object-oriented data structure” to which Dr.  
14 Bederson and Mr. Gray refer<sup>2</sup>—a web browser takes as input a discrete quantum of information  
15 that is already semantically associated as a unified HTML “document.” That a browser performs  
16 additional processing to render an HTML document into viewable form does not change the fact  
17 that it takes a unified HTML document as input, while LaunchTile merely assembles, for display  
18 purposes, disparate image resources representative of independent applications.

19 101. For the reasons above, it is my opinion that the World View in LaunchTile does  
20 not “display[] at least a portion of a structured electronic document” and therefore does not  
21 disclose this element of claim 50.

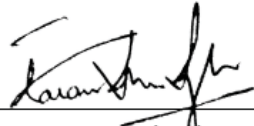
22 **C. Claim 50, Element [c]**

23 102. LaunchTile does not disclose the element of claim 50 of “instructions for detecting  
24 a first gesture at a location on the displayed portion of the structured electronic document;  
25 instructions for determining a first box in the plurality of boxes at the location of the first gesture;

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27 <sup>2</sup> Dr. Bederson is careful to limit his testimony to say only that “embedded tiles were  
28 always part of one unified zoomspace that was dependent on a single object-oriented data  
structure for its content **during the rendering process.**” (Bederson Decl. ¶ 14 (emphasis added.))  
No such unifying structure exists prior to—or independently of—LaunchTile’s being executed.

1 I declare under penalty of perjury under the laws of the United States of America that the  
2 foregoing is true and correct. Executed on May 31, 2012.

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