EXHIBIT II
vs.
Plaintiff,

APPLE INC., a California corporation,

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.
$\qquad$

C O N F I D E N T I A L
A T T OR N E Y S' E Y E S O N L Y
O U T S I D E C O U N S E L

VIDEOTAPED DEPOSITION OF RAVIN BALAKRISHNAN, Ph.D. SAN FRANCISCO, CALIFORNIA TUESDAY, AUGUST 16, 2011

BY: ANDREA M. IGNACIO HOWARD, CSR, RPR, CCRR, CLR CSR LICENSE NO. 9830
JOB NO. 41176

MR. LIEN: Henry Lien, representing Samsung. MR. BRIGGS: Todd Briggs, representing

Samsung.
MR. AHN: Matthew Ahn, of Morrison \& Foerster, on behalf of Apple.

THE VIDEOGRAPHER: Will the court reporter please swear in the witness.

> RAVIN BALAKRISHNAN, Ph.D.,
> having been sworn as a witness,
> by the Certified Shorthand Reporter, testified as follows:

THE VIDEOGRAPHER: You may proceed.

EXAMINATION BY MR. JOHNSON
MR. JOHNSON: Good morning, Mr. Balakrishnan.
Q Have -- you've been deposed before?
A Yes, I have.
Q Okay. About how many times?
A About a half a dozen times, roughly.
Q I'll try to ask coherent questions, and if you -- hopefully you'll provide some answers, and if -- to the extent that you don't understand any of

MR. MONACH: Object to form; vague.
THE WITNESS: To the extent that, very
broadly speaking, they are both concerning touch input devices, yes, but the real subject matter of the Elan case was on this algorithm for analyzing the data coming out of the touch, the touch device. Whereas, here, it's more of a user interface issue, at least the three -- well, the current patent, right, we're talking about today here.

MR. JOHNSON: Q. In the Elan case, Apple is a defendant; right?


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Q What patents are you substantively involved in with respect to the Motorola cases?

MR. MONACH: Dr. Balakrishnan, we're not involved -- my firm is not involved in the Motorola case, and it may well be that work that -- work that you've done that isn't publicly known, for example, by filing something is confidential and is the work product of the firm representing Apple in that case, so I would caution you not to disclose anything that is not -- has not been made public in that case. It's irrelevant to this case, in our view. THE WITNESS: Okay. I think your question was what patents, and I believe that is, based on my declaration which I believe, are public. The two patents I've primarily been working on is the -what's called the ' 828 patent, and the other one is the '430 patent. The full number, I'd have to look it up.

MR. JOHNSON: Yeah.
Q And, just generally, what do those patents relate to?
did zoom in. But whether or not it has to be zoomed in, I need to spend a bit more time making sure whether it has to or not. I have not done that right now on this device.

MR. JOHNSON: Okay.
THE WITNESS: So, on this device, I went
through the -- the preamble. It's clearly a computer-implemented method. It has a device with a touchscreen display. It is displaying right now a first portion of an electronic document. The electronic document here happens to be a photograph or an image, some kind of a picture of something.

MR. JOHNSON: Q. Is the electronic doc -what -- what does an "electronic document" mean in the context of this patent?

MR. MONACH: Object to form to the extent it's calling for a legal conclusion, but you can give your views on that.

THE WITNESS: In the context of this patent, my understanding, having read the patent and the claims, is the electronic document is some visual representation on the screen that has a defined length and a width, as an example, or defined set of boundaries, because they may not have to be a rectangular set of boundaries.

MR. JOHNSON: Q. So can it -- it can be anything with a defined length and width?

A It could be any visually represented thing with a defined boundary. I'd rather use the word "boundaries," because length and width may connote a rectangular thing. It may not be a rectangle, necessarily.

Q Okay. So an electronic document is anything that can be visually represented with a defined boundary?

MR. MONACH: Object to the form of the question; object as calling for a legal conclusion.

THE WITNESS: In the context of this patent and the claims, reading the patent and the claims, I would say that would be a -- my definition of an electronic document would be something visually representable on the screen that -- that has a defined set of boundaries.

MR. JOHNSON: Okay.
Q How about the next limitation?
A Okay. So, as I said earlier, it's got a first portion of an electronic document. We already went through that.

Q And -- and -- I'm sorry.
A I'm sorry.

Q What does "first portion" mean?
MR. MONACH: I'm going to object to the form of the question to the extent it calls for a legal conclusion.

THE WITNESS: In -- in this particular example, I would say the first portion is the -- the portion of the image that we see displayed on the screen, which I don't know how to describe this --

MR. JOHNSON: Can you zoom in more on the screen, just so we see it better. Yeah, okay. That's good. Thanks.

THE WITNESS: Everything, including the yellow blob in the middle and the blue stuff around it.

MR. JOHNSON: Q. So it's everything that's shown on the screen is the first portion?

A Well, obviously, not this word "Samsung" and things like that.

Q Yeah.
A The actual display, maybe if I -- without touching it, if $I$ can sort of indicate, you see the bottom boundary there --

Q Okay.
A -- the top boundary, right boundary, and left boundary?
on a smartphone mobile computer, it clearly must have instructions in order to execute those -- those movements and functions that $I$ just demonstrated.

So that would cover 19, and Claim 20, when it talks about a storage medium, that -- those instructions, the program that we -- it was executing while I'm manipulating this, would have to be stored on some storage medium, and given that this doesn't appear to be connected to anything else and the medium must be -- wouldn't necessarily have to be inside the -- the device itself, and I say that, again, without having examined the device in great detail, this particular device.

MR. JOHNSON: Okay.
Q So in your -- in your opinion, the gallery application in -- of Exhibit 20 infringes Claims 1, 19, and 20; correct?

MR. MONACH: Same objection.
THE WITNESS: So, in my opinion, given the short time I've looked at this right now, the time I've had there, I would -- I would say, yes, it infringes.

MR. JOHNSON: Q. Can you look at the contacts application --

A Sure.

Q -- and we'll go through this -- well, let me ask you this: Can you look at the contacts application and tell me whether it's your opinion that the contacts application of Exhibit 20 infringes the claims of the '381 patent?

MR. MONACH: Object to form; same objection on asking him a hypothetical question to form an opinion at the -- on the fly at the deposition.

THE WITNESS: So, again, I'll preface -- if you give me a minute, first of all, to -- to look at this, but I also preface my upcoming answer by saying that I haven't had a chance to examine this particular phone on my own time, so I'm doing this, again, right here at the deposition, so it's kind of an on-the-fly opinion.

Okay. I've looked at it.
MR. JOHNSON: Q. In your opinion, does the contacts application of Exhibit 20 infringe the '381 patent?

MR. MONACH: Same objection to the form; asking for a legal conclusion with minimal time to examine it, the device.

THE WITNESS: So based on my brief examination of this right now in the deposition, $I$ would say, yes, it does infringe Claim 1.

MR. JOHNSON: Okay.
Q Can you walk us through the infringement?
A Sure.
So let's see on this again.
Okay. So what $I$ have here is, again, the Samsung Galaxy -- what appears to be the Samsung Galaxy $S$ smartphone mobile computer, and it has the preamble, again, of Claim 1, a computer-implemented method. It's a mobile computer. It has a computer compromising a device with a touchscreen display and, as you can see, it's a device that's got a touchscreen display that reacts to my touches.

So now what I've got here is the -- the so-called contacts application, and what it -- what it's showing me on the screen is a -- displaying a first portion of an electronic document. So this document here consists of a bunch of phones or, you know, contact information of different people, I guess, and their phone numbers and so forth.

So, right now, I've got the first portion of that, which, you know, the top here, it's got Bob White, and on the bottom, it's got somebody I just entered, with -- with some random set of letters at the bottom, starting with $N$. So that's a displaying the first portion of an electronic document element of
the claim.
The second element is detecting a movement of an object on or near the touchscreen display, and I'm gonna do this in combination with the next element, which says, "In response to detecting the movement, translating the electronic document displayed on the touchscreen display in a first direction to display a second portion of the electronic document, wherein the second portion is different from the first portion."

So I'm just gonna do this right now. I'm gonna put my finger down, and that finger would correspond to the object in the claims, and it's gonna detect -- the system's gonna detect the movement of that object with my finger on -- on the touchscreen display. I'm gonna put it down. Oops. I'm sorry. I didn't intend it to activate the -- I'm just gonna go back here.

So strike that little portion where it activated. If $I$ put my finger down, it'll lightly move. It -- and I've now moved in one direction, moved my finger in one direction, the document is moved in one direction to display a second portion, and the second portion here, you can see, has a -- the last name at the bottom of the screen -- I don't know if you can see that -- it's now Mary something or the
to the elements of the claims of -- Claim 1 of the '381 patent, appear to be the same as the -- those found in the gallery application of these other five phones, five phones that have just been placed in front of me and looked at a few minutes ago. Again, I want to say $I$ haven't studied this in great detail to confirm with 100 percent certainty.

MR. JOHNSON: Q. But, as far as you're concerned, the gallery feature operates the same basic way as -- in Exhibit 100 as it does in the Galaxy 10.1, for purposes of alleged infringement of the '381 patent; right?

MR. MONACH: Object to the form of the question, since he hasn't been given an opportunity to compare this with the 10.1 --

THE WITNESS: So -MR. MONACH: -- side by side.

THE WITNESS: So, I'm sorry, you said against the Galaxy 10.1 tablet, yeah, I would like to look at that in -- in detail before I make that determination. Otherwise, I'd be going by memory.

MR. JOHNSON: Q. When's the last time you looked at a Galaxy 10.1?

A I might have looked at it yesterday, again, in preparation for the depo, but I certainly looked at
it about two or three weeks ago.
(Phone marked Balakrishnan Exhibit 101 for identification.)

MR. JOHNSON: Exhibit 101 is a Galaxy 10.1, so let me ask the question again.

Q Looking at Exhibit 100, the Galaxy Tab 7, and comparing the Galaxy 10.1 gallery function, can you tell me whether those gallery applications operate the same way for purposes of alleged infringement of the '381 patent?

MR. MONACH: Same objection; lack of
foundation; calling for a legal conclusion and a new opinion on devices presented for the first time at the deposition.

THE WITNESS: So if you give me a minute to refresh my memory on the 10.1 tablet here.

So based -- based on my quick comparison here on -- on the fly, at this deposition, I would say the -- of these two tablets, Exhibit 100 and Exhibit 101, I would say that the base functionality in the gallery application, with regards to elements of Claim 1, appear to be very similar.

MR. JOHNSON: Q. Can you look at the contacts application of the Tab 7 and tell me whether the contacts application infringes any claims of
the ' 381 patent?
MR. MONACH: Same objection as previously stated.

THE WITNESS: So I would say this is the first time I'm looking at this particular contacts application, so you've got to give me a few minutes to study this.

So, again, this is the first time I'm looking at this particular style of contacts application, which has a very different look and feel from the other ones on the phones. Given my very quick review here, $I$ would say this contacts application, in terms of scrolling the -- the list of names within the application, would meet the -- would infringe the claims -- the element of the claims of -- of Claim 1 of the '381 patent.

MR. JOHNSON: Q. Would infringe?
A It would infringe, yes.
Q Can -- can you walk us through the alleged infringement of the contacts application and using the camera where possible --

A Sure.
Q -- to show the different limitations of the claim?

MR. MONACH: Same objection as previously
stated, asking the witness to form a new infringement opinion with a device presented to him for the first time at the deposition.

THE WITNESS: Do you know if there's a way to
lock the thing from not rotating, because -- anyway, I'm gonna try, if it doesn't keep bouncing around.

How are we doing?
MR. JOHNSON: If you could just tilt it forward a little bit. That's better. Here, you can --

THE WITNESS: You good to go? Okay.
To the extent that I'm -- you know, I want to just caveat this by saying I'm doing this live on a device I've just seen a few minutes ago, so I may make some mistakes and maybe do it again.

So, first of all, let's walk through to
Claim 1. It's a computer implemented method. This is clearly a mobile computer compromising a device with a touchscreen display. This is -- it just shut off.

Okay. Let's try this again.
It's a device with a touchscreen display that clearly reacts to my -- my touching the display, so it has the preamble of the claim. It says here, in the first part of the claim, it says, "Displaying a first portion of an electronic document," and in this
contact application, I would say the electronic document is this list of -- of items, list of names that you see on the left-hand side of the -- of the screen here.

MR. JOHNSON: Q. So it's -- it's the -- the column of the names? Can you -- can you just point to what you're talking about?

A Sure.
Q You should touch the screen before.
A Okay. Let's try this again.
So the electronic document in this particular instantiation would be the list of -- of names that you see with these letter headings or letter dividers in between the names. It would be the -- so, you know, what you see in, kind of, this box here, starting -- it keeps going off to -- I'm sorry. It keeps shutting off.

MR. MONACH: Sorry to interrupt here, but while you're fiddling with that, I just have a continuing objection to this series of questions.

THE WITNESS: Okay. All right. Let's try this again. Hopefully, it doesn't go to sleep.

So it has -- you know, the list I just marked out there, that would be the electronic --

MR. JOHNSON: Q. So an electronic document
can be something that's smaller than what you see on the screen, because it meets your definition of visually represented on the screen with a defined -defined set of boundaries?

MR. MONACH: Objection; calling for a legal conclusion.

THE WITNESS: I would say an electronic document doesn't have to fill the entire screen.

MR. JOHNSON: Okay.
THE WITNESS: Yes, and it's gone asleep again, so let's try this one more time. Okay.

All right. So it is live. So we've got the electronic document. Now, the next element of the claim says "Detecting a movement of an object on or near the touchscreen display," and I -- I'm gonna put my finger down, which would correspond to the object in the -- in the claims, and it detects a movement of my object on or near the touchscreen display and clearly reacts to that.

The next element says "In response to detecting the movement, translating the electronic document displayed on the touchscreen display in a first direction to display a second portion of the electronic document, wherein the second portion is different from the first portion."

So let's see if I can show this. I've got my finger on the screen, my object on the screen. The first portion is this part of the document that, let's say, starts with Chris Thomas at the top, and at the bottom it has the word "QWERTY," that I just entered. I'm gonna -- I'm gonna move my -- move my finger, and so in response to my -- my finger, it's gonna translate the electronic document to display -translate in a first direction, in one direction here, to display a second portion, which is different from the first portion.

So, now, the second portion now, as you see, on the top, has Billy Smith, and the bottom has Michael Myers on the -- on the list of the information on the document. So it's clearly different from that first portion that we saw earlier that had different names on the top and bottom.

Now -- now, I'm gonna keep going here to the next element. It says "In response to an edge of the electronic document being reached while translating the electronic document in the first direction, while the object is still detected on or near the touchscreen display, displaying an area beyond the edge of a document and displaying a third portion of the electronic document, wherein the third portion is
if $I$ zoom in on the image, and if $I$ move the image, then -- if I -- at 45 degrees, for example, you know, you see my finger has moved 45 degrees?

A Roughly.
Q -- or approximately; right?
A Sure.
Q And then that's a first direction; right? MR. MONACH: Objection; form.

MR. JOHNSON: Q. I want you to assume that's the first direction.

A Okay. Sure.
Q Okay. And then if I move the image down from there at 45 degrees, right, have -- in both of those actions, has my finger moved the same direction?

MR. MONACH: Objection to the form of the question; vague; calling for a legal conclusion.

THE WITNESS: In the compound two-dimensional case, it is moving in two dimensions. It, in one case, moved in some amount of the $X$, in some amount of the $Y$. In the other case you moved a different amount of the $X$, a different amount of the $Y$, depending on what your components of the direction are. If you're only interested in one axis, then maybe it was the same. I'd have -- I'd have to determine exactly what your paths were. But if you're talking about the
two-dimensional movement, then it appears you took two different vectors --

MR. JOHNSON: Yeah.
Q For purposes --
A -- in these images.
Q For purposes of the claims of the '381 patent, these are -- these are two different directions; right?

MR. MONACH: Objection; calling for a legal conclusion.

THE WITNESS: For purposes of the claims, these -- the two-dimensional directions that you took -- that you just showed appear to be different. MR. JOHNSON: Right.

Q Just so, since you're the actor today, can -can you -- can you --

A I hope I'm not acting.
Q -- show us on the screen -- or, at least, you're -- you're the hand model.

Can -- if you could just put the -- show on the screen the two -- the -- the -- just what I just did.

So put -- put your finger on the screen on the zoomed-in image, and if you move it up at 45 degrees --

A Like, up here?
Q Yeah.
A Okay.
Q And then if you move it down 45 degrees, right, those are not the same direction; right?

MR. MONACH: Objection to the form of questions for the reasons previously stated.

THE WITNESS: So, as I said, in the two-dimensional space, if I'm concerned with both the X and Y axes, taking both components of movement, then it would be different. However, if I'm only interested in one of the components, say, for example, the X axis, I 'd have to look at the data. It may be both moving in the same direction in the X axis, for example.

MR. JOHNSON: Q. For purposes of the claims of the '381 patent, they're not the same direction; are they?

MR. MONACH: Objection to the form of the question; calling for a legal conclusion.

THE WITNESS: So the claim doesn't say whether the direction is two dimensional, three dimensional, one dimensional, so it would be determined -- would depend a little bit on whether you want to constrain the direction to be only a
particular axis. If the claim is interpreted broadly to mean any number of axes of movement, then it would not be the same. If it's interpreted more narrowly to say I'm only interested in $X$ axis movement, for example, then it can be the same.

MR. JOHNSON: Q. Well, what's your definition of "first direction," under the claims of the ' 381 patent?

A Reading it in terms of the plain language, which is the way I've -- I've interpreted the claims so far, I would take this to be -- could be more than one -- one dimension.

Q So under the definition -- under the definition of "first direction" that you just gave for the '381 patent, were those two finger movements the same direction?

A They would be the same direction, if you take the two-dimensional components into account, yes.

Q So they would be a first direction?
A So, no, I'm sorry. Can $I$ go back? I -- I misstated that.

They would be -- they would not be the same direction if I took the two-dimensional components into account. But if $I$ only looked at one-dimensional component of the movement, they might be the same.

I'd have to look whether the X axis is the same thing.
Q Is there -- do you think there's an ambiguity in terms of what "first direction" means in the plain language meaning of that term for the '381 patent?

MR. MONACH: Object to the form of the question; vague; incomplete hypothetical; calling for a legal conclusion.

THE WITNESS: From a plain reading of this and just taking a high-level view of it, the -- it would appear to encompass all -- all components of the direction, dimensions of the direction, but I could imagine somebody, you know, saying I only want it constrained to X axis, for example.

MR. JOHNSON: Yeah, I'm talking about a person of ordinary skill in the art.

Q What would a person of ordinary skill in the art understand "first direction" to mean in the '381 patent?

MR. MONACH: Object to the -- object to the form of the question, but you can give your understanding.

THE WITNESS: So as I'm reading this, the claims in conjunction with the patent, I would say it includes the -- the -- the two-dimensional components. MR. JOHNSON: Okay.

Q So if I go back to the claim language, the third element says "In response to detecting a movement translating the electronic document displayed on the touchscreen display in a first direction to display a second portion of the electronic document," so can you show me what that is in the Galaxy $S$ 4G?

A So -- so displayed in the touchscreen in a first direction.

So if I go -- so let me zoom this one again. If I go this way, see that. Let me do this again. So it's a first direction, for example.

Q Okay.
A And it displays a second portion of the document.

Q And then, the next element says "In response to an edge of the electronic document being reached while translating the electronic document in the first direction."

So that means you have to reach the edge using the same first direction?

A That's right.
MR. MONACH: Object to the form.
THE WITNESS: I'm sorry. I should have waited.

MR. JOHNSON: So --
document being reached while translating the electronic document in the first direction"?

A So same zoomed-in image, I'm going here. I moved in the first direction, and I continue moving in that same direction, I see the edge, and then it continues.

So it's detected the edge. Movement is still happening the same first direction and displays an area beyond the edge, which is in black, past the -past the edge of the document, and then displays a third portion of the electronic document, which is what you see in the screen, which is smaller than the first portion that we saw earlier.

Q Okay. So when I -- when you moved to the edge of the document by moving your finger over, I saw the image move up a little bit.

MR. MONACH: Object to the form of the question.

MR. JOHNSON: Q. And so my question is: When you move your finger across and the image moves up or down, is that the same first direction?

MR. MONACH: Object.
MR. JOHNSON: Q. Do you understand my question?

MR. MONACH: Object to the form of question;
assuming facts not in evidence. Object to the extent it calls for a legal conclusion.

THE WITNESS: So --
MR. JOHNSON: Q. So let me -- let me ask it a different way.

A Can I release this?
Q Yeah, you can release that. This is not -this is not intended to be torture.

Is there -- is the only way to infringe this, the claims of the ' 381 patent, for the -- for the movement of the image and the object to be in a perfectly straight line?

MR. MONACH: Object to the form of the question as calling for a legal conclusion; incomplete hypothetical.

THE WITNESS: No, I don't think it has to be a perfectly straight line.

MR. JOHNSON: Q. You would agree that the first movement that you took when you translated the document to -- to display a second portion of an electronic document, and then when you moved to the -to the edge of the document, your -- your finger didn't move exactly a straight line; right?

MR. MONACH: Objection; form. Objection; vague.

THE WITNESS: To the extent that a -- a -you know, was my finger exactly on a straight line, I don't think that's humanly possible --

MR. JOHNSON: Right.
THE WITNESS: -- unless you constrain my finger with some physical gadgetry that would hold it. I don't think that you can do that --

MR. JOHNSON: Q. So my question is --
MR. MONACH: Please don't interrupt him.
MR. JOHNSON: Sorry about that.
Q My question is: Where do you draw the boundaries around what constitutes the same first direction? How do you do that?

Because, as you just said, you can't have a perfectly straight line, unless your finger is physically constrained to something that -- that makes that happen. So what's -- what constitutes the difference between moving in the same first direction the way you did it, versus the way I did it with a 45-degree arc?

MR. MONACH: Hang on.
Object to the form of the question. Object to the extent you're calling for a legal conclusion. THE WITNESS: So --

MR. JOHNSON: Q. So my question is: A
person of ordinary skill in the art would not know how to differentiate between drawing the perfectly straight line with a finger in one direction -- in the first direction, versus drawing approximately a straight line.

MR. MONACH: Is that a question?
Object to -- object to form.
THE WITNESS: Are you talking from a -- so
I'm not sure $I$ completely understand the question.
MR. JOHNSON: I'm talking from a user standpoint.

Q Someone wants to try and avoid using this particular claim by saying I'm not gonna use my object to -- to -- to move, in this case, the photo in a first direction. How do I go about avoiding that?

MR. MONACH: Object to the form of the question as vague and calling for a legal conclusion. Objection to the extent it calls for a narrative about all the possible ways one might avoid infringing. THE WITNESS: So I think that's -- it would have to be a first direction that the other one -the -- the second first direction and the first first direction in these claims would have to be the same general direction as a user would perceive it to be. I -- I don't think it has to be exactly on a
mathematical equivalent straight line, but, to me, if you go, you know, obviously different directions, like you did on the -- the two 45 s in very different two-dimensional directions, most users would be able to say that's a -- you know, I've got to change direction along the way.

MR. JOHNSON: Okay.
Q How about a slight arc? Is that sufficient? MR. MONACH: Same objection; also vague. THE WITNESS: A slight arc. So if you're saying my direction is -- is the contours of the arc, so one, kind of, doing this and continue along the same -- I don't know how you continue in an arc.

Eventually you will loop back, but wait. Let me -- that would be -- you know, if your direction is now a two-dimensional direction, yes, it would be the same direction.

Or if I was on the 45 angle and continued in this similar 45 and didn't make a sharp turn, then it would be the same dir- -- same first direction.

MR. JOHNSON: Q. And what if $I$-- what if I did an angle that was, you know, ten degrees in one direction and ten degrees in the other direction?

I'm trying to understand where the metes and bounds are, where the boundaries are for what
infringes, versus what doesn't; and so at what point is it the same first direction and at what point is it not the same direction? Because you said my -- my example of going 45 degrees up and 45 degrees down is not the same direction.

So, you know, going at ten degrees up and ten degrees down, is that the same first direction? I mean, I can't draw a straight line with a ruler, so it all looks pretty straight to me, but at what point do you avoid the claim and at what point are you covered by the claim?

MR. MONACH: Object to the --
MR. JOHNSON: So let -- let me ask it a little bit more specifically.

Q At -- tell me -- when -- when you said it has to be the same general direction, what exactly do you mean by that?

MR. MONACH: Objection to the extent that you're asking for a legal conclusion. Objection to the extent it's an incomplete hypothetical and you're asking him to form a new opinion here at the deposition.

But if you have a -- have you -- you can answer.

THE WITNESS: So I haven't, you know,
explored this particular question in great detail
in -- in thinking about this, because, to me, reading this, as one skilled in the art, it says first direction and another first direction, it would be the direction -- same general direction that a user would generally consider to be a first direction of the same direction; whereas, if it's something that -- you know, I think a straight line from a mathematical definition or a unfavoring first direction from a mathematical -- a direction from a mathematical definition, and then what one skilled in the art or average user would say, yeah, that's in the same direction.

So if you're asking me is there an exact mathematical number at which it is no longer one, I don't think $I$ could give you that answer.

MR. JOHNSON: Okay.
Q What about -- let me -- can we have that phone, please. Thank you.

Can you try and get this for me?
Okay. So you said this is not the same first direction; right?

A Can you do that again?
Q That direction is not the same as that direction --

MR. MONACH: Objection to the form of the question.

MR. JOHNSON: Q. -- right?
MR. MONACH: Calling for a legal conclusion.
THE WITNESS: If I was a -- as I said earlier, if I'm considering the full two-dimensional movement and not just the X axis component, then -then it is two different directions that a user would perceive it as.

MR. JOHNSON: Q. I'm -- all I'm asking is, is it the same first direction for purposes of the '381 patent and how the term "first direction" is used in that?

MR. MONACH: Objection; asked and answered. Objection; calling for a legal conclusion and a new opinion with an incomplete hypothetical.

THE WITNESS: So to the extent that you -you -- the movement you did was -- from my eyes, it's exact -- it's a different two-dimensional direction.

MR. JOHNSON: Okay.
THE WITNESS: It is different.
MR. JOHNSON: Okay.
Q Is -- is this arc the same direction? So if I break it into two --

A You didn't pause.

Q Let me do it again.
So that is the first step of the first direction. This is the second step.

Is that the same first direction?
MR. MONACH: Same objection as to the previous question.

THE WITNESS: So, conceptually, if you're moving in an arc, and assuming you went on the same arc, and you didn't -- when you broke there, you -you were still following the same arc, I would say it is the same first direction.

MR. JOHNSON: Q. It is?
A Yes.
Q Okay. So what if $I$ changed -- what if $I$ break the arc? So if I start this, this way with -and that's the first step, and then I change the angle of the arc, I either go up or $I$ go down at a different angle, so I break the arc?

A So it's no longer --
MR. MONACH: Same objection.
Go ahead.
THE WITNESS: I'm sorry.
A -- if you're no longer on the same arc, you have -- you have broken the arc, as you -- as you've said, then it would not be the same direction.

MR. JOHNSON: Okay.
Q And if I move my finger -- you would agree that in moving my finger -- and I can see the image moving up and down -- I mean, generally speaking, there are gonna be components within the movement of a finger that have a vertical component to it, as well as sort of the horizontal component; right? So it's moving up and down.

MR. MONACH: Object to the form of the question.

MR. JOHNSON: Q. So is that -- is that the same direction, even though it's -- it's bouncing up and down when I move it?

MR. MONACH: Same objection.
THE WITNESS: Well, I wouldn't say that's bouncing up and down. I saw it moving primarily to the right. I actually could not see it bounce, but I'll take your word that it's moving maybe a little bit up and down. You could exaggerate it a little bit, if you wanted it to, but -- but now you're clearly moving it in a jaggy way, so that's --

MR. JOHNSON: Q. So is that the same first direction?

A Well, I'm seeing your hand move in a zigzag, so, to me, that's -- I think it's a very contrived way
of doing it.
Q No, I'm trying to -- I'm -- I'm purposely contriving it to -- to understand if that's the same first direction. So if $I$ move it in a -- in a jagged sort of way --

MR. MONACH: Hang on a second.
MR. JOHNSON: Q. -- is that the first -with -- let me start over.

Q If $I$ move my finger in a jagged way, like this, does that meet the elements of the claim in the ' 381 patent for first direction?

MR. MONACH: Objection; calling for a legal conclusion; vague; incomplete hypothetical.

THE WITNESS: So I'm thinking here -- I haven't considered this in detail before. Now you're showing me this for the first time, and I'm thinking out loud here, to some extent.

Similar to the arc, where it's a
two-dimensional movement, but it follows a pattern, it's following that arc, and I said that it would be a first direction if you continue along the same arc. In this case, you've got a rhythmic -- I think you did a rhythmic jagged movement, where you kind of went up and down, up and down, in a same kind of sawtooth. I would say that is the same direction, if you continue
along the same rhythmic two dimension --
two-dimensional sawtooth or jaggy, whatever you want to call it, which is different from the original -sorry -- the earlier one where you did a big movement in one direction and another big movement in a different -- very different two-dimensional direction. I would think one of ordinary skill in the art would say that's a different two-dimensional direction. MR. JOHNSON: Okay.

Q So, then, let me -- let me go back to that, then, and ask you this: If I -- if I do two saw teeth, up, down, up, down, is that the same first direction --

MR. MONACH: Objection; vague and --
MR. JOHNSON: Q. -- because it's rhythmic?
MR. MONACH: Objection; vague and ambiguous; incomplete hypothetical; calling for a legal conclusion and a new opinion at the deposition.

THE WITNESS: Again, $I$ haven't thought about it in detail. You know, I'm thinking about this for the first time here. I would say to the extent that it's repetitive, and you're -- you're going in the same direction, it would be the same first direction. MR. JOHNSON: Okay.

Q So repetitive in the same direction,
rhythmic, generally the same direction, those all meet the limitations of the '381 patent for first direction, as far as you're concerned; right?

MR. MONACH: Same objection.
THE WITNESS: Again, thinking on the fly
here, you know, haven't -- haven't delved into this in great detail, yes, I would say yes.

MR. JOHNSON: Okay.
Q So let's -- let's keep going through the -the claim --

A Sorry. I can't remember where we were.
Q -- limitations.
We were -- we were just about to do display in an area beyond the edge of a document.

A Okay. So let's assume I've done some of the earlier stuff, and I've now -- I've pulled this, and I've gone in one direction in a -- in the same direction, same first direction. I've now -- I'm now showing an area beyond the document.

Q That's the black?
A It is the black beyond the blackened dots there. It says, "Displays the area beyond the edge of the document," and then it displays -- well, currently displays a third portion of the electronic document, which is what you see to the right of the -- the area
beyond the edge, and that is clearly smaller than the first portion which took up more of the screen.

And then, now, that last element of the claims --

Q Okay. Before you get there, what -- what is "displaying an area beyond the edge of the document" mean?

MR. MONACH: Object to form. Object to the extent it calls for a legal conclusion.

You can give your understanding.
THE WITNESS: My understanding is, in the context of this patent and the claims, it's -- I've got the edge of the document. I've reached the edge, and I'm gonna show something, some -- some amount of visuals beyond that edge. Displaying an area.

MR. JOHNSON: Q. What do you mean you're going to show some amount of visuals beyond the edge?

A So, for example, the black space, that black area. It could be a white area. It could be some -some visual that's not part of the document.

Q So it could be anything that's visual, as long as it's not part of the document?

MR. MONACH: Object to the form of the question. Object to the extent it's vague and calls for a legal conclusion.
not going to answer it.
Q Have you ever -- have you ever heard of the term?

A I believe I have. It's not something that I use regularly.

Q Okay. Have you ever heard of the term "organic LED displays"?

A I have heard the term, yes.
Q Okay. And what -- what is that?
A It -- again, I haven't, for purposes of preparation for this, I haven't thought about that in detail to give you a clear answer, so I'm not -- I'm not gonna give you an answer that's detailed. I would say that's a different form of -- of display --

Q Okay.
A -- than some of the others out there.
Q So to -- to meet the elements of the claims in the '381 patent that refer to display in an area beyond the edge of the document, does the display need to actively show something beyond the edge of the document?

MR. MONACH: Objection; vague. Objection to the extent it calls for a legal conclusion.

THE WITNESS: I'm not sure what you mean by "actively needs to show." It says the -- the claim
element says "displaying an area," so it would have to display an area. I'm not sure how it could happen without --

MR. JOHNSON: Okay. THE WITNESS: -- the device actually doing it.

MR. JOHNSON: Q. Exhibit 21 that's in front of you, the Galaxy S 4G, I think it's off right now, right, so is -- is that display -- strike that.

Is that device displaying anything on the -on the screen?

MR. MONACH: Object to the form of the question; vague. Object to the extent it's asking for a legal conclusion and a new opinion.

THE WITNESS: I haven't thought about this in -- in any detail. Just thinking on the fly here, the display doesn't appear to be powered on, and as a result, the active part of the display doesn't appear to be showing anything.

MR. JOHNSON: All right.
Q So when it's off, when it's not displaying anything, it's not -- strike that. It's not displaying anything, so let me ask it a different way.

When the -- when the screen is turned off, it's not displaying anything; right?

MR. MONACH: Same objection.
THE WITNESS: When the screen is turned off, the screen portion is not displaying anything. Beyond the screen, there are hard -- you know, hard is the -I guess personally -- permanently or somewhat permanently etched lettering that says "T-Mobile" and "Samsung" on it. You could argue that that's a display on the phone, but it's not, you know --

MR. JOHNSON: Q. I'm talking about the screen.

A -- the -- the actual active part of the screen, it's not displaying anything, no.

Q Okay. So if you go to -- back to your example, where you were demonstrating infringement of the photograph in the gallery.

A Uh-huh.
Q Can you go back to that for me. Okay. And if you go to the portion where you believe that you're displaying an area beyond the edge of the document --

A Like once --
Q That's the black --
A Yeah.
Q -- edge on the left-hand side of the screen. You don't know how the Samsung products
actually operate and where that black boundary comes from; do you?

A Are you saying where the black boundary comes from and whether it's sending instructions illuminate or not illuminate those pixels?

Q Right.
A It would have to send the instructions to say illuminate or not illuminate or illuminate with a particular color.

Q So what is it doing? Is it telling you to illuminate or not illuminate? What does the code do there?

MR. MONACH: Objection; lack of foundation.
MR. JOHNSON: Q. And if you don't know, you can say you don't know.

A I -- I have not looked at the code that does that, so I cannot answer that question.

Q So if -- if the LED -- if there are LEDs that are turned off in that leftmost edge there, right, there -- it's not displaying an area beyond the edge of the document; is it?

MR. MONACH: Object to the form of the question. Object to the extent it calls for a legal conclusion and a new opinion.

THE WITNESS: So I haven't thought about this

MR. MONACH: Object to form.
MR. JOHNSON: Q. Or maybe not below it.
A Yeah, there is stuff above the F and below the $T$, yes.

Q Okay. So all I was asking was, you can have an electronic document that has an internal boundary within a screen; right?

MR. MONACH: Object to the form of the question as vague. Objection; calls for a legal conclusion.

THE WITNESS: So I -- I'm not -- again, I'm still not sure what you mean by "internal." It --

MR. JOHNSON: I'm --
THE WITNESS: Are you saying that this is the boundary of the electronic document?

MR. JOHNSON: Yeah.
Q I just meant that that's internal because it's -- it's located within the middle of the screen?

A So in that -- that boundary doesn't match the edge of the screen --

Q Exactly.
A -- is what you're -- is that what you're saying?

Q Exactly.
A Sure, the boundary of the document doesn't
have to align with the screen.
Q So you can have -- you can have the edge of the boundary be something other than the edge of the screen?

MR. MONACH: Objection; vague.
MR. JOHNSON: I think we're saying the same thing. I'm just -- I'm really bad with trying to --

A I want to make sure $I$ say the right thing with my understanding of what you're saying, too.

Q So all I'm saying is, under your view of an electronic document, an electronic document can have a boundary that is internal to the screen or, you know, doesn't have to be at the edge of the screen -MR. MONACH: Objection; form. MR. JOHNSON: Q. -- right?

MR. MONACH: Objection; calling for a legal conclusion; asked and answered.

You can do it again.
THE WITNESS: So as I answered earlier, and my opinion is that the boundary of the electronic document, in this case, this -- this edge is one boundary of it, does not have to match the edge of the screen, yes.

MR. JOHNSON: Okay.
Q So just, during the lunch, I had the guys
just print up a sheet of paper with some squares on it for me. So if you imagine, sir, that the -- the quadrants that are labeled 1 to 36 on here are the entire -- that's this -- that's the screen of the display.

A So the whole -- the big rectangular is the screen?

Q Right.
A Okay.
Q So you can have an electronic document that consists of smaller grids within the screen; right?

MR. MONACH: Object to the form of the question; calling for a legal conclusion; incomplete hypothetical; asking for a new opinion.

THE WITNESS: It would depend on what one considers to be the electronic document. It could be one of these, let me call it sub rectangles that you can label with numbers. It could be some combination of them. It --

MR. JOHNSON: Right.
THE WITNESS: -- really depends on -- depends on how, you know, you want to put the boundary around it.

MR. JOHNSON: Q. So you could draw a boundary, hypothetically, around squares 15, 16, 17,

18, 21 and 22, 23 and 24?
A Say -- sorry. 15, 16, 17, 18, 21?
Q 22, 23, and 24.
A So kind of like this?
Q Yeah, go ahead and draw it.
MR. MONACH: Object to the -- object to the form of the question as vague and ambiguous;
incomplete hypothetical.
MR. JOHNSON: Q. Make it a little more noticeable for me.

A We've got black lines around it.
Q Yeah, okay.
So that could be an electronic document;
right?
A Depend --
MR. MONACH: Same objection.
THE WITNESS: Sorry. I jumped in there.
Depending on the context, depending on the application, it could be.

MR. JOHNSON: Okay.
THE WITNESS: Or some other collection.
MR. JOHNSON: Q. It's not limited to that; right?

A I would not say it's limited.
Q So it could be also a -- a six-by-six grid or
a two-by-two grid?
MR. MONACH: Same --
MR. JOHNSON: Q. -- or even a three-by-three grid, I guess --

MR. MONACH: Same objection.
MR. JOHNSON: Q. -- right?
MR. MONACH: Vague and ambiguous; incomplete hypothetical.

THE WITNESS: Again, it would depend on the def- -- you know, how -- whoever is being the application, what they consider to be the document -to be the extent of the document, yes.

MR. JOHNSON: Q. Under your view, though, it could be those, those grids; right?

MR. MONACH: Objection; same objection as before. Also, misstates the prior testimony.

THE WITNESS: Depending on the context, it -it could take on different forms.

MR. JOHNSON: Okay.
Q Does the grid need to be a rectangle?
MR. MONACH: Same objection.
MR. JOHNSON: Strike it. Let me ask it again.

Q Does -- would the grid need to be a rectangle in order for it to be an electronic document?

MR. MONACH: Same objection.
THE WITNESS: Well, I think the electronic document doesn't have to be anything to do with the grid. It --

MR. JOHNSON: Okay.
THE WITNESS: -- it's any visual thing with defined boundaries --

MR. JOHNSON: So -- so it --
THE WITNESS: -- by my definition of it.
MR. JOHNSON: Q. Could -- if you -- if you drew lines around squares one, two, and eight, for example --

A One, two, and eight. So this kind of, I guess, inverted L?

Q Yeah.
Could that be an electronic document?
MR. MONACH: Objection; vague; incomplete hypothetical; calling for a legal conclusion and a new opinion.

THE WITNESS: So to the extent that I haven't considered this, this style of odd-shaped documents prior to coming here today, just thinking on the fly here, a -- based on my understanding of, you know, boundaries, that wouldn't -- would satisfy the notion of a boundary, again, depending on the context of the

1 not to answer, unless he relied on a fact that was 2 communicated by counsel in forming his opinion here.

THE WITNESS: In forming my opinion for the declaration, $I$ did not rely on any such information.

MR. JOHNSON: Did you rely on any conception -- strike that.

Q In your opinion, what is the appropriate conception dates for -- if you have one -- for the asserted claims of the ' 381 patent?

MR. MONACH: Object to the question as asking for a legal conclusion; may lack foundation; and is posing an incomplete hypothetical for which there may or may not be an adequate foundation.

THE WITNESS: In my opinion, just reading the -- this document and -- I would -- I would come up with a January 7th, 2007, date.

MR. JOHNSON: And is there -- do you have any reason to believe -- strike that.









``` re- -- did you review any of the professional applications that are listed here on the front of the ' 381 patent?
A I looked at one of the professional applications.
Q Which one?
A I can't recall exactly which one. The numbers skip -- skip my mind.
Q Why did you look at it?
A It was part of just understanding the -- the providence of the patent, so to speak.
Q Did it list other inventors besides Mr. Ording?
A It might have, yes.
Q Were you curious as to why those other
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Q Do you know, is -- is LaunchTile a zoomable user interface?

A Going purely from memory, I believe there was some elements that -- that allows -- that allowed for zooming to different levels to see more or less content, but I'm going purely from memory.
(Phone marked Balakirshnan Exhibit 114
for identification.)
MR. JOHNSON: Okay. I actually want to mark, as Exhibit 114, a device that we have that is an iPAQ that is running LaunchTiles on it, and I want to ask you a few questions about it.

A Okay.
Q So I'm gonna ask my colleague to come around over by you, just so he can put the device over there and he can operate it while I ask you questions about it, since I don't have four hands.

A Okay.
MR. MONACH: I'll object to the -- to the extent there was a question, I'll object to the question or assertion as vague and assuming facts not in evidence that the device is running LaunchTiles.

THE VIDEOGRAPHER: Please stand there. It might be better, and hold it like that.

MR. JOHNSON: Just put that on the back for
me so we don't forget.
THE WITNESS: So you're gonna hold it? Okay.
MR. JOHNSON: Q. So you can -- you can take a look at it and, frankly, play around with it, if you want --

A Okay.
Q -- to familiarize yourself with it, just to tell me if you recognize it as LaunchTile.

Have you ever played with LaunchTile before?
A I played with it very briefly a long time ago, and then $I$ looked at it briefly again -- was it last week -- last week in the Netherlands, when this came up.

Q And how did it come up in the Netherlands?
A I believe a similar device -- I don't know, maybe it's the same one, but it was either produced by Samsung or somehow the -- the Apple lawyers had a copy of it, and LaunchTiles was allegedly loaded on it, and they -- they looked at some of the potential functionalities. I did not spend much time on it.

Q Okay. What was your impression of it? MR. MONACH: Objection; vague.

THE WITNESS: It -- it does what it does. It -- I don't know what you mean what my impression is.

MR. JOHNSON: All right.
Q Well, take a look at it and just see if that looks like the LaunchTile that you remember.

MR. MONACH: Objection; vague; lack of foundation; lack of authentication. I also object this is beyond the scope of his declaration in the pending PI motion.

THE WITNESS: So it does appear to be the launch -- you know, a version of the LaunchTile application that I've seen in various forms in the past. I haven't verified that it is actually LaunchTiles.

MR. JOHNSON: Q. When is the first time you saw LaunchTiles?

A LaunchTiles?
It was -- I'm going by a vague memory here, it was probably either at the conference, the CHI Conference of that year, in, I think, 2005. I might have gone to the talk, or I saw it -- or I saw a video of it subsequently. Typically when I go back to my university after a conference, we -- we review some of the papers --

Q Are those --
A -- so I might have seen the video of it later.

Q Okay.
A I can't remember when is the first time I played with it. Somebody, one of my students, may have downloaded it, and I checked it out.

Q Are the -- are the presentations made at the CHI Conference videotaped?

A The presentations of -- they're sometimes videotaped. I don't think they're necessarily all videotaped. I've seen them being videotaped on occasion.

Q Do you know whether Dr. Peterson's presentation was videotaped?

MR. MONACH: Object to the form.
THE WITNESS: That particular presentation at the conference?

MR. JOHNSON: Yeah.
THE WITNESS: I do not know either way.
MR. JOHNSON: Q. Do you know whether he made the presentation or was it somebody else? Do you remember?

A I can't tell, as I can't remember whether I attended the presentation or not.

Q Okay. So if you can, let me ask you to hand it back to -- to Henry, and I just want to ask you a few questions about some of the -- some of the -- the
features of LaunchTiles.
So -- well -- and you can -- yeah. You can just -- I just want to make sure we can see it, as the glare from the light is pretty bad.

So there -- there -- there -- in the example that we've -- we've pulled up in front of you, which has a $2 \times 2$ grid, is the -- is the LaunchTiles example that you see there that's running on the iPAQ device a computer-implemented method?

I'm just -- I'm just gonna go through the claims of the ' 381 patent.

A Okay. Let's keep it in front of me.
Q I'm not trying to trick you or anything. I just wanna -- I just -- I'm gonna follow along, so if you want to follow along, that's fine.

So the question is: In the $2 \times 2$ grid that -that we have in LaunchTiles in front of you, does the -- running on the iPAQ device, does that perform on a computer-implemented method?

MR. MONACH: Object to the form of the question. I'll object to this whole line of questioning as calling for a legal conclusion; asking the witness to form an -- a new opinion on a topic he has not opined upon at the deposition with incomplete information or opportunity to examine the device of a
product, but you can answer.
MR. JOHNSON: You can have a running objection on that, just to try and cut though this.

THE WITNESS: So I haven't examined this in any great detail, but just looking at this right now, it's -- certainly is an application that's running on a computer-implemented -- or a computer -- so it is a computer-implemented method.

MR. JOHNSON: Okay.
Q And does LaunchTiles running on iPAQ, does that meet the limitation of a device with a touchscreen display?

MR. MONACH: Same objection.
THE WITNESS: It's not clear, to me, this is a touchscreen display. I tried touching it a minute ago, like when $I$ was playing with it, and it didn't react to me, but the -- the pen seems to do the job.

Okay, so now it does react, so maybe I was mistaken. Given what he just did, it appears to react to touches, so, sure, it would be a device with a touchscreen display.

MR. JOHNSON: Okay.
Q So in the -- in the $2 \times 2$ grid that we see there running on the iPAQ, does that meet the limitation of displaying a first portion of an
electronic document?
MR. MONACH: Same objection; lack of foundation; incomplete hypothetical.

THE WITNESS: So I would have to study this in detail before answering that question, because I need to understand the context of the content being shown on the -- on the display as to what constitutes an electronic document there, whether it's all four tiles is one document or a single tile is a document. I cannot make that determination, just looking at this on the fly.

MR. JOHNSON: Q. So if the -- in this example, assume the $2 x 2$ is an electronic document.

A So you're representing to me that you want me to consider --

Q I want you to consider the $2 x 2$ is an electronic document?

A So just to clarify it, does that mean the -the whole thing is one document. Is that what you're saying to me?

Q Right. Right, the $2 \times 2$. And so, then, when --

A So that's your representation. I'm not necessarily agreeing with that.

Q I'm just -- yeah, right.

And so, then, displaying a first portion of an electronic document would mean that we scroll slightly to the left.

Would you agree, just as we saw in the infringement case, that that's displaying a first portion of an electronic document?

MR. MONACH: Same objection.
THE WITNESS: So, again, to say, you know, I haven't studied this in detail, in your representation the -- the four tiles, as a whole, would be the entire -- would be the electronic document, it would be a first portion. I would note that as you're -- as it's moving there, the -- the electronic document is translated. However, that blue thing in the middle is not moving, so I don't know if you intended the blue thing, the blue circle in the middle, to be part of the electronic document or not, but that -- that's certainly not moving. That's remaining stationary, and some other representation of a so-called underneath is moving, so it doesn't exactly seem to match up in my -- in my current very quick view of this, relative to the claims.

MR. JOHNSON: Q. But scrolling to the left, that displays a first portion of the electronic document, which is the $2 \times 2$ grid; right?

MR. MONACH: Same objection.
THE WITNESS: You mean, before you scrolled or after you scrolled?

MR. JOHNSON: Q. I mean, after I've scrolled.

A So after you made that little movement?
Q Right.
A Okay.
Q That displays a first portion of an electronic document; doesn't it?

MR. MONACH: Same objection and assumes facts not in evidence.

THE WITNESS: If you, as you represented earlier, before he scrolled -- if you don't mind going back to before you scrolled, I believe, if I understand you correctly, you represented to me that you wanted me to consider the -- this -- all this content, the four tiles with whatever decorations were around it, the entirety, to be an electronic document.

MR. JOHNSON: That's correct.
THE WITNESS: That's -- that's my
understanding --
MR. JOHNSON: That's right.
THE WITNESS: -- that you represented to me.
I don't necessarily agree with that, because $I$ haven't
studied this to determine what would constitute an electronic document and what would not, but given that assumption, the hypothetical assumption, if that's an electronic document, and now you are -- I believe he scrolled or --

MR. JOHNSON: Scrolled it slightly to the left.

THE WITNESS: -- moved it, I would say that parts of the electronic document have moved, but other parts have not moved. So the blue thing that you just represented to me was part of the electronic document hasn't moved, so that hasn't translated at all.

MR. JOHNSON: Q. Does it need to move in order to meet the elements of the claim?

MR. MONACH: Objection for the reasons previously stated; vague and ambiguous.

THE WITNESS: So I haven't studied this in detail. Just very quickly reading the claims, it says in response to detecting the movement. I'm reading Claim Element 3 here, which I --

MR. JOHNSON: Q. Yeah, I'm not there yet.
A Okay. So where are you?
Q Displaying a first portion of an electronic document.

A Okay.

Q All he's done is moved it slightly to the left.

A Okay. I thought you said the first portion was the -- the earlier, the electronic document before he moved it.

Q Let's -- let's start over --
A Okay.
Q -- okay?
I want you to assume for me that the electronic document is the $2 x 2$ grid, the four tiles.

A All that content?
Q Right.
A Including the decorations?
Q That's fine.
A Okay.
Q Yeah, okay.
By the way, does that meet your definition of an electronic document, namely -- strike that.

Does that meet your definition of an electronic document for the purposes of the '381 claim?

MR. MONACH: Objection; calling for a legal conclusion; in -- incomplete hypothetical; asking him to make a new opinion without adequate information.

THE WITNESS: Done?

So as I stated earlier, I haven't studied this in detail enough in matching it up with the claims, so your representation is you wanted me to consider all four tiles as one doc -- in a -- in its combination, as an entirety, as one document.

That might be an electronic document vis-à-vis the claims. It might not be. I would have to study that in detail --

MR. JOHNSON: Well --
THE WITNESS: -- relative to the context of the application. I have not done that detailed analysis yet. So it may be that only each -- each tile is an electronic document in this application. I don't know.

MR. JOHNSON: Q. Well, it's visually represented on screen with a defined set of boundaries, right, those $2 \times 2$ tiles?

MR. MONACH: Object to the form of the question; assumes facts not in evidence; lack of foundation.

THE WITNESS: As I said, you -- you're representing to me that you wanted me to consider that. So if you considered those four tiles as one entirety with the defined boundaries, that could be an --

MR. JOHNSON: Sir --
THE WITNESS: -- electronic document in the con- -- but I have not studied this application in detail enough to determine what the contact of use of this application is. Maybe in this application it might be considering each of these tiles as a separate electronic document. I do not know that.

MR. JOHNSON: Q. I'm asking you, does the $2 x 2$ tiles that we see currently on the screen, does that meet your definition of "electronic document," as that term is used in the ' 381 patent?

MR. MONACH: Objection; lack of foundation; incomplete hypothetical; asking the witness to draw a legal conclusion and a new opinion for the first time at the deposition with inadequate information.

THE WITNESS: And as I believe I already answered, it depends on what the context of use is.

So if -- if, indeed, the application considers those four things as one entity and is -has defined boundaries, then that might meet the electronic document definition, as used in the claims, but it -- it might not.

It might -- it might be that each of those -each of these tiles or quadrants might be a separate electronic document. I would have to study this in
the context of use of this -- of these pieces of tiles in this application to determine that with any certainty.

MR. JOHNSON: Q. So you don't know right now, sitting here?

A I cannot give you a definitive answer. It could be an electronic document, depending on the context of use.

Q So when -- when he slides it slightly to the left, does that display a first portion of an electronic document if you assume that that $2 \times 2$ grid is an electronic document?

MR. MONACH: Same objection.
THE WITNESS: So if we make that assumption that that $2 \times 2$ grid in its entirety is an electronic document and after he slid it, that could be a first portion.

Now, I would still note that when he moved it, the -- if the electronic document was the entirety, including that blue circle in the middle, when he moved it, the blue circle did not move --

Q Are --
A -- so not all -- let me finish, please.
The -- the blue circle did not move, so the entirety of the document --

Q But that --
A -- in that example.
Q -- that's irrelevant for the claims; isn't it?

MR. MONACH: Objection; same objection as previously stated; asking for a legal conclusion with incomplete hypothetical.

THE WITNESS: So I have not made that determination. I would have to study that. I have not considered the relevance of whether portions of the document moved together or not, whether that is relevant to the -- to the elements of the claim, so I would reserve a detailed opinion on that until I've had a chance to study --

Q I'm asking you for your opinion now.
Can you tell me if the location of the blue circle on this is relevant to any portions of the claim limitations?

MR. MONACH: Same objections as previously stated. Now it's been asked and answered.

THE WITNESS: So, as I said, I -- I cannot tell you right now, without studying this in detail, whether that blue thing, blue circle in the middle, whether that moves with the document or not. Whether that has relevance to this, I would have to study that
in detail, and $I$ cannot answer that off the cuff now. MR. JOHNSON: Q. Does LaunchTiles, with this $2 \times 2$ grid operated on an iPAQ, detect a movement of an object on or near the touchscreen display?

A Yes, it does.
Q Okay.
A He -- he showed me with a finger it does that, and the pen is doing that, as well.

Q So the -- an object can be either a finger or a pen or something else; right?

A Yes, it -- it could be any -- some object, but it has to be on a touchscreen display.

Q The -- when he now scrolls back to the right, does --

A He's bouncing around a little bit. So you moved to the left, and then now you've come back to this.

Q Moved to the right, yeah.
A All right.
Q So does the $2 \times 2$ LaunchTiles grid operating on the iPAQ describe the next limitation in the claims, which is numbered as three?

A So this one's saying in response to detecting the movement translating electronic document displayed in the touchscreen in the first direction to display
the second portion?
MR. MONACH: Same objection.
MR. JOHNSON: Correct.
THE WITNESS: So you want me to assume the first portion was after he had moved to the left, and now you move it back, and you're saying that's the second portion of the document?

MR. JOHNSON: Right.
THE WITNESS: With -- with the same caveats I said earlier about the blue thing moving and whether that's part of the document or not, I'll repeat that as part of my current answer, and, again, I haven't had a chance to explore this in great detail, but given those, the qualifications, $I$ would say it appears to be -- it could be meeting that claim -claim element.

MR. JOHNSON: Q. And when the device continues scrolling to the right, beyond the edge, does it meet the fourth limitation of Claim 1 of the ' 381 patent?

MR. MONACH: Same objections as previously stated, and now the question assumes facts not in evidence, as well.

THE WITNESS: And you mean the fourth limitation that I've labeled here as four; right?

MR. JOHNSON: Right. We're gonna mark your copy of the patent as Exhibit 115.

THE WITNESS: Sure. I think it's already 110, though.

MR. JOHNSON: Okay. Even better.
THE WITNESS: It's 110?
MR. JOHNSON: No, it's actually --
THE WITNESS: Oh, I'm sorry. I'm sorry. I made a mistake.

MR. JOHNSON: Let's mark, as Exhibit 115, a copy of your patent with the limitations numbered.
(Document marked Balakrishnan Exhibit 115
for identification.)
THE WITNESS: Okay. So we'll just go with what I've written down here, okay.

MR. JOHNSON: Q. So, again, the question is: Does the movement that Mr. Lien just did meet the fourth limitation of the claim?

MR. MONACH: Same objection as previously stated.

THE WITNESS: Again, with the same qualifications about the blue circle in the middle not moving, and if that was part of the document, then it doesn't move appropriately. And, again, with the same qualifications I made earlier, that I haven't had a
chance to look at this in detail. Just sitting here right now, an off-the-cuff view of this, I would say it appears to meet -- meet the fourth limitation.

MR. JOHNSON: Okay.
Q Does LaunchTiles in the $2 \times 2$ grid operating on the iPAQ meet the fifth limitation of Claim 1?

MR. MONACH: Same objection as previously stated; assumes facts not in evidence, as well. THE WITNESS: Can you do that again, please? Again, given -- well, something else happened. So, again, given the qualifications I did earlier -- I said earlier about the circle in the middle, the blue circle, and also the fact that $I$ haven't looked at this in any detail, in this quick view of this -- of this application running here, I would say it appears to meet the -- the fifth element.

MR. JOHNSON: Q. Does it meet the sixth element of Claim 1 of the ' 381 patent?

MR. MONACH: Same objection.
THE WITNESS: Can you show me the first
portion again?
Okay. Now the second portion. Third portion.

I would say, in addition to the qualifications I've given earlier, that it doesn't
necessarily meet this sixth element, because the third portion here that he's showing me, it's bouncing around a little bit, but the size of that appears to be -- it could be the same as the first portion that he showed me earlier, because the first portion was translated off to the left-hand side with a border on this side. Now he's on this side, with a similar border on the other side. So it -- it may be the same size, that third portion may be the same size as the first portion.

MR. JOHNSON: Q. But he could -- he could do it in a way where the third portion is smaller than the first portion; right?

MR. MONACH: Same objection.
MR. JOHNSON: Q. And meet that -- meets the sixth claim limitation; right?

A Well, maybe -- maybe he can show me that.
Q Sure.
A Show me your first portion. Let's see your first portion. Okay.

Second portion. Okay. Third portion. It's very hard to tell. It's bouncing around. I'd have to measure it. It could be. It -- it may not be. It's clearly smaller necessarily, because the other one is also not full screen. It moved off to the other
side --
MR. JOHNSON: And can you do --
THE WITNESS: -- so there was --
MR. JOHNSON: -- it again that's more pronounced.

Q So let's -- let's look at the first, second, third portions again.

A Okay. That's your first portion. So second portion is in the center.

It appears, in this case, he's moved it a bit more, and it --

MR. MONACH: Same objection.
THE WITNESS: -- it potentially could -could infringe -- sorry -- it could not infringe --

MR. JOHNSON: Meet the limitation.
THE WITNESS: -- meet the limitation of Claim 6, again with the qualifications that I -- I just went through with the circle in the middle and the fact that $I$ haven't studied this in any great detail.

MR. JOHNSON: Q. It would meet the sixth limitation of Claim 1; right?

MR. MONACH: Same objection; asked and answered.

MR. JOHNSON: Q. You said Claim 6, and I
think you misspoke.
A I meant to say the sixth limitation.
Q Okay.
A I'm sorry.
Q And when he lifts the stylus or his finger, does it meet the seventh limitation of Claim 1 ? MR. MONACH: Same objection. THE WITNESS: In this case, it's back to the original document, which was, and I would say, to go back, when you -- when you displayed the first portion of the electronic document, that already included a movement, which the claims doesn't talk about.

So you already had a movement there. Given that, and given all the caveats -- sorry -- the qualifications that $I$ have made with regards to this -- this demonstration, the circle not moving, the fact that $I$ have not looked at this in any great detail, it -- it appears that it could meet that -that -- that -- sorry -- element 7 of Claim 1, again, with the qualification again that -- that the first portion of this case already included a movement, which this -- this claim doesn't appear to talk about.

MR. JOHNSON: Q. Well, the -- the first
portion in your infringement reads "also included the zoom-in movement"; right?

MR. MONACH: Objection; misstates the prior testimony.

THE WITNESS: I didn't talk about zooming at all.

MR. JOHNSON: But it included it. I know you didn't talk about it.

Q But it included it; right?
MR. MONACH: Objection; misstates the prior testimony; vague and ambiguous.

THE WITNESS: No, the zoom happened, and then I'm -- I've -- I've got the document up there --

MR. JOHNSON: Well, I know the --
THE WITNESS: -- and I'm not holding my
finger down in a zoomed mode waiting for that -- the next movement to appear. I've zoomed it in. I could leave the device. Start it up again. It's already zoomed in, and then I start implementing the claims of the patent.

MR. JOHNSON: But that's my point.
Q You've already zoomed in on it for the infringement read; right?

MR. MONACH: Objection; misstates the prior testimony, with respect to various portions of his prior testimony.

MR. JOHNSON: I'm sure you have it. It's on
the videotape.
THE WITNESS: In the gallery application, a zooming occurred way before the elements of the claim were started out. In the contacts list application, there was no zooming happening.

MR. JOHNSON: Q. Way -- way before? Where -- where are we getting "way before" from?

A Before $I$ started going through the claims --
Q Okay. Does --
A -- as I said before; whereas, here, he -- he has to keep his finger on that, on the first portion. In other words, it would bounce back into the center of the screen.

Q The fact that he kept his finger or the stylus on the device, does that -- is that relevant to any of the claim language we just looked at? Same objection as previously stated to the whole line of questioning here.

A I don't know. It might be. I haven't -- as I said, multiple times with regard to this application, I have not studied it in detail, and -and I'm giving an off-the-cuff analysis here looking at a live demo, and I have not had the opportunity to opine on this in any detail.

MR. JOHNSON: Yeah.

THE WITNESS: So it might be; it might not be. I don't know.

MR. JOHNSON: Q. Take a look at Claim 1 and tell me, in your opinion, does the fact that he kept his finger or the stylus on the screen avoid any limitation of Claim 1?

MR. MONACH: Objection; calling for a legal conclusion; incomplete hypothetical; asking the witness to form a new opinion based on inadequate time to study.

THE WITNESS: So as I just testified earlier, the fact that he keeps his finger on there may or may not impact Claim 1. I have not had the time to study that in detail and to consider that. That's something I'm being told right now on the fly, and I don't think I can make an informed enough decision or opinion on it just on the fly here. So I'm gonna have to reserve my answer to be a fully qualified opinion after I've had a chance to consider that issue --

MR. JOHNSON: I'm --
THE WITNESS: -- relative to these claims.
MR. JOHNSON: You've read this patent several times.

Q I'm asking you to take a look at Claim 1 and tell me, does the fact that he kept his finger or the
stylus on the screen avoid infringement or invalidity of this claim, and if so, tell me what the language is that you're relying on.

MR. MONACH: Same objection; now it's more vague and compound; asked and answered.

THE WITNESS: So I -- I'm going to give you the same answer I just gave. This is a new -- a new element that is being shown to me for the first time here. I haven't had time to study this, and I don't think I can give you a detailed opinion on whether or not it might infringe -- sorry -- it might -- not infringe, it might meet the claim, it might not meet the claim. I have -- I need to have time to study that, and I cannot do that on the fly.

MR. JOHNSON: Take a look at Claim 2.
Q Does the $2 \times 2$ grid in LaunchTile operating on the iPAQ meet the limitation described in Claim 2?

MR. MONACH: Same objection as previously stated with the questions about 1; lacking in foundation, given his prior testimony about Claim 1.

MR. JOHNSON: Counsel, I really suggest you just keep a running objection, but you're really interfering with the examination, at this point.

THE WITNESS: So with regards to Claim 2, I'm looking at this again, my qualifications of -- of what
is the electronic document here, from my earlier answers, it's not clear that -- whether that blue circle in the middle is part of the document or not, or, again, I'm looking at this on the flight here, haven't had the time to study it.

It is -- I haven't had time to determine if the magnification changes, as he moves it around or not. It might be. It might not be.

At, you know, first glance, it looks like it hasn't changed, but I haven't had time to -- to study this in detail, so I cannot give a definitive answer as to whether the magnification of the electronic document, to the extent that's even an electronic document in this application, remains the same.

MR. JOHNSON: Okay. Does -- what's -- what's the exhibit number on the back of that?

MR. LIEN: 114.
MR. JOHNSON: Okay.
Q Does Exhibit 114 meet the limitations of Claim 3?

MR. MONACH: Same objection as stated in response to the previous question.

THE WITNESS: To the extent that -- my understanding is Claim 3 is a dependent claim on Claim 1, so to the extent that Claim 1 is met, which

I'm not agreeing whether it does or not, based on my earlier testimony. That said, the -- the portion of the Claim 3, which says the movement of the objects on a touchscreen display, that would be met, yes.

MR. JOHNSON: Q. And the limitation of Claim 4 would also be met; right?

A With regards to whether the object being a finger, if you can do that again, just so I can see it.

Yes, it appears that a finger would affect that kind of movement.

Q And does Exhibit 114 meet the limitations of Claim 5?

MR. MONACH: Same objection.
THE WITNESS: When you say "Exhibit 114," you mean the device with the application running on it?

MR. JOHNSON: That's correct.
THE WITNESS: Okay.
Again, given the -- the same qualifications I've given with my earlier answers with regards to whether it meets Claim 1, and Claim 5 is a dependent claim in Claim 1.

Given those qualifications, which I'd like to incorporate in this current answer, I would say, given those qualifications, yes, his first direction is one
of a vertical/horizontal or diagonal, so it would meet -- would meet the limitations of Claim 5.

MR. JOHNSON: Q. Does it meet the limitations of Claim 7?

MR. MONACH: Same objection.
THE WITNESS: I don't think I can answer that without knowing what the content of that -- of those -- of that document is. It's not clear to me whether that's a collection of lines of text, whether it's an image, like you said JPEG or something along those lines --

MR. JOHNSON: Is --
THE WITNESS: -- or a collection of images.
I cannot answer that without exploring the -- that document in much greater detail.

MR. JOHNSON: Q. Is it -- is it a digital
image?
MR. MONACH: Objection; same objection to the reasons previously stated; asked and answered.

THE WITNESS: So as I just said, I cannot determine if it's a digital image. It may be an image. It may be several images concatenated together. It may be some web pages. It may be lines of text. I -- I cannot make that determination just from a quick look at it.

MR. JOHNSON: Q. So is a web page not an electronic document?

MR. MONACH: Same objection; vague and ambiguous.

THE WITNESS: So Claim 7 says the electronic document is a digital image, so it's -- it's trying to -- my understanding is it's trying to give a more specific instance of what an electronic document is, in that -- in that example, in that claim.

MR. JOHNSON: Right.
Q Using your -- what is the -- what is the -- I already asked you this. I mean, using your definition -- strike that.

Using the definition of a person of ordinary skill in the art would understand a digital image to mean, does Exhibit 114 meet the limitations of Claim 7?

MR. MONACH: Same objections as previously stated.

THE WITNESS: And I think I've already answered that.

I -- without knowing more information about what that -- those four tiles are that you have represented to be the electronic document, is that a single image? Is it multiple images? Is it some

## text?

MR. JOHNSON: Well, take a look --
THE WITNESS: I can't tell from -- this could be four images that are concatenated together to form one document.

MR. JOHNSON: Q. So would that not meet the limitation? If it's a concatenated series of images, does that avoid Claim 7?

MR. MONACH: Same objection.
THE WITNESS: I don't know. I haven't considered that scenario. It says here the electronic document is a digital image. It doesn't talk about a concatenated set of images.

MR. JOHNSON: Okay.
THE WITNESS: And so I would have to study that scenario in detail before answering that question.

MR. JOHNSON: Q. Does a concatenated series of images satisfy the definition of a digital image as it's used in the ' 381 patent?

MR. MONACH: Same objection; asked and answered.

THE WITNESS: I would say, again, to my -similar answer to what $I$ just gave, it -- it would depend on the application. If the application
considered that -- sorry -- I think you asked whether it's a digital image.

I would say a concatenation would be a series of a bunch of digital images combined together. Now, if that combination is treated by the application as a single image, then maybe it is. It would depend on the context. So I do not know enough about the context of this application and how it's treating any potential concatenation of images to answer that question in -- in -- with any certainty, at this point.

MR. JOHNSON: I heard you earlier say that the claim language of the ' 381 patent is simple and straightforward.

Q So are you telling me that looking at this screen that we see here in Exhibit 114, and what we see on it, you can't tell me whether that is a digital image?

MR. MONACH: Object to the form of the question.

THE WITNESS: That's not what I said. I said I can't tell that's one digital image or four digital images concatenated together, so it has nothing to do with whether the -- the language. The claim is straightforward. The claim states "a digital image."

It doesn't talk about concatenation of digital images or combination of digital images, which this may or may not be. I'm not able to tell that on the application. Nothing to do with the language of the patent.

MR. JOHNSON: Q. Does Exhibit 114 meet the limitations of Claim 9?

MR. MONACH: Same objection.
THE WITNESS: To the extent that if you say the whole of four images can constitute the electronic document, I would say, given this particular set of content there, there appears to be a list of -- if you don't mind, phone list and an inbox, which has a list of items there.

So that --
MR. JOHNSON: Zoom in.
THE WITNESS: -- the electronic document includes a list of items, which is what Claim 9 says. It doesn't necessarily mean the whole document is a list.

MR. JOHNSON: Q. Does it meet the limitations of Claim 10?

MR. MONACH: Same objection.
THE WITNESS: Based on what he showed me earlier, and given the qualifications I've already
made regarding Claim 1, I would say it meets Claim 10, yes.

MR. JOHNSON: Q. Does it meet the
limitations of Claim 13?
MR. MONACH: Same objection as stated with respect to the other claims.

THE WITNESS: From what I've seen so far, it appears that it would not meet Claim 13, because what I've seen of the area beyond the edge of the document, as shown to me by your colleague here, is not one of these colors. It seems to be a compound set of content there.

MR. JOHNSON: Q. So the edge of the document is -- is not black, gray, a solid color, or white?

A No, he's --
MR. MONACH: Object to the form of the question.

THE WITNESS: -- he's showing me all of this other content that has a bunch of other extra stuff there, beyond the -- beyond the edge of the document.

MR. JOHNSON: Q. So the fact that part of the edge of the document, beyond the edge of the document includes black, gray, solid color, or white that -- that doesn't meet that limitation?

MR. MONACH: Object to the form of the
question for the reasons previously stated, and also now misstates the evidence.

THE WITNESS: I think he's showing me the -the area beyond the edge includes some other stuff that is not just black, gray, solid color, or white. It has all kinds of other colors there.

MR. JOHNSON: Q. But the -- the area beyond the edge includes a solid color. In this case, light blue --

A Do you mind if I --
Q -- right, in the e-mail example?
MR. MONACH: Same objection.
THE WITNESS: It --
MR. MONACH: Assumes facts not in evidence.
THE WITNESS: To me, I'm looking at the area beyond the edge. It's -- the interactive area is way beyond. It has a vertical bar there, but then there's also more stuff beyond it. So it's not -- the whole area is not one of those four things, as in Claim 13.

MR. JOHNSON: Q. Does Exhibit 114 meet the limitations in Claim 14?

MR. MONACH: Same objection as previously stated to this line of questioning.

THE WITNESS: And that's an even trickier one, because I'd have to look very carefully at the
content of this stuff that's bouncing around on the edge there and -- to determine if that actually is. So, for example, the bottom here -- whether -- whether that content is actually different, I'd have to study it carefully. To the extent that it is different, then I would say, yes, it meets it. It would really depend on what that content is.

MR. JOHNSON: Q. Does claim -- does Exhibit 114 meet the limitations in Claim 16?

MR. MONACH: Same objections.
THE WITNESS: Can you do that first direction, second direction, and lift it up again, please. If you don't mind, I'll look at it. Whoops.

MR. LIEN: Sorry.
THE WITNESS: Or maybe I can play with it, if you don't mind. I'm having trouble looking at this thing. Yeah, okay.

Do that again. It would appear to be, again, with all the caveats of -- all of the qualifications I've already made with regards to Claim 1, I would say it appears to be, this particular example, there might be an elastic connection there or elastic look to that.

MR. JOHNSON: Q. Does Exhibit 114 meet the claim limitations described in Claim 19 of the '381
patent?
MR. MONACH: Same objection as previously stated.

THE WITNESS: Again, the same qualifications with regards to Claim 1 in whether this device meets that or not. To the extent that this is running a computer program, like in the Samsung phones, it clearly has one or more programs running, and then, therefore, it would meet Claim 19, again given my qualifications of Claim 1.

MR. JOHNSON: Q. And does Exhibit 114 meet Claim 1?

MR. MONACH: Same objection.
THE WITNESS: And my, kind of, similar
answer, taking all my -- my qualifications with regards to Claim 1, you would have to have some kind of storage media, so it would meet Claim 20 , with the same set of qualifications for all of the different elements.

MR. JOHNSON: Okay. Let me show you another example --

THE WITNESS: I also want to say, just for the -- I'm sorry to interrupt you.

MR. JOHNSON: He'll have the opportunity to ask you a question.

MR. MONACH: You can finish -- you can finish your answer. Go ahead.

MR. JOHNSON: There's -- there's no question.
MR. MONACH: There -- there was a question. The witness was still speaking, and he's allowed to speak, and if you want to move to strike it, you can move to strike it, but he can -- he's free to go ahead.

THE WITNESS: I'll pass.
MR. JOHNSON: Okay.
Q The -- the -- I'd like for you now to assume that the electronic document consists of a grid that's actually $2 x 4$ tiles.

A I'm not seeing that here. I'm seeing $2 x 2$.
Q So that's the four right there.
A Right.
Q Do you see what I'm talking about?
A So I'm seeing four, and earlier he zoomed out to some much larger number of tiles.

Q It's the -- it should be $2 x 4$.
A So two --
Q So two --
A Okay.
Q It's back to -- it's back to the -- the grid, $2 \times 4$.

So he's --
A You're talking about this grid?
Q Yeah.
A Okay.
Q So there are two pages, so to speak. It's two --

A So this --
Q -- in the vertical direction and four in the horizontal direction; okay?

A The -- the document consists of these eight tiles --

Q Correct.
A -- is your representation.
Q Right.
A Okay.
MR. MONACH: Objection; assumes facts not in evidence in addition to --

MR. JOHNSON: Q. So I'd like for you to -MR. MONACH: -- what's been previously stated.

MR. JOHNSON: Q. I'd like for you to assume that's the electronic document, the $2 \times 4$ tiles, and I'm gonna have him run through again the -- the claim language and see whether you agree with it or not, okay?

So assuming the -- the -- the electronic document is $2 \times 4$ tiles, and if we start on the left portion, I want you to assume for me that that's a first portion of the electronic document; understand?

A So these four tiles of the eight tiles is the first portion.

Q Right.
A Okay.
MR. MONACH: Same objection as --
MR. JOHNSON: Then if --
MR. MONACH: -- previously stated, and
further objection, assumes facts not in evidence.
MR. JOHNSON: So we display a first portion of an electronic document. He's detected a movement of an object on or near the touchscreen display.

Q Now, the next limitation, which is Claim 3 -sorry -- limitation No. 3 in Claim 1, when he scrolls left, does that meet the third limitation in Claim 1?

MR. MONACH: Same objection.
THE WITNESS: So when he scrolled left there, I would say, given your assumption that you've asked me to take, I have not determined whether that's an electronic document or not.

Given that hypothetical, he is moving to the left, I would again, as I said earlier in the earlier
round of answers and questions, the blue circle there that appears to be part of the document initially is not moving, so the translation of the document seems to be partial in this case or when the blue stuff is not moving in a -- and a lighter blue happened to move instead.

Given those difficulties or qualifications to the movement there, I would say, apart from that, it -- it does appear to display a second portion that is different from the first portion.

MR. JOHNSON: Q. And when he scrolls left beyond the edge, does it meet the fourth limitation?

MR. MONACH: Same objection, and now it assumes facts not in evidence.

THE WITNESS: I have not seen the edge of a document being reached while translating. So you told me the document was the eight -- eight-item grid.

MR. JOHNSON: Right.
THE WITNESS: I have not seen the edge being reached.

MR. JOHNSON: Q. Now the edge is reached; right?

THE WITNESS: Can you --
MR. MONACH: Same objection.
THE WITNESS: Can you show me that again?

So you're talking about that edge is reached? Which edge? I've lost track of where we are on the document. They all look -- the tiles all look the same.

MR. JOHNSON: I was trying to keep him quiet, so you weren't having two people ask you the questions, but, okay.

MR. LIEN: Reboot.
MR. JOHNSON: Yeah. Get the other one. Let me ask about the other one.

MR. LIEN: It's good.
MR. JOHNSON: Okay. So let's -- let's go back to what we were looking at.

Q So assume for me that the -- the --
A One of the problems I'm having here is you tilt it over that way for the camera, and maybe we can both sit in a different way so $I$ can see this properly. Okay. That's better for me.

MR. JOHNSON: What if you go that way a little bit, and then let him zoom in, and then --

MR. LIEN: Okay.
THE WITNESS: That's better, yes, thank you.
MR. JOHNSON: Q. You're the one that matters.

A But you need to get it on camera too; right?

Okay. So where are we now? We -- is this the first two tiles of the eight-tile document?

Q Right.
A So there's four more tiles, kind of, out here.

Q That's right.
A That's your representation. Okay, given your representation --

Q It's like we zoom --
A -- now that's the first movement?
Q Right.
A Okay.
MR. MONACH: Same objection.
THE WITNESS: Okay. Now --
MR. JOHNSON: Q. That's the second portion?
A This is the second portion, okay. And now that's the edge that you're saying we reach?

Q Right, that's the edge.
A So that's the end of the eight tiles; right?
Q That's right.
A Okay.
Q And now we're scrolling beyond the edge, and then when he lifts the object, it bounces back.

A Can I ask you to do that again please, right from the start, if you don't mind. Okay. Right.

Okay. Yes.
MR. MONACH: Same objections.
MR. JOHNSON: So --
MR. MONACH: Assumes facts not in evidence, as well.

MR. JOHNSON: Q. Would you agree that Exhibit 114 meets the limitations of Claim 1 of the ' 381 patent?

MR. MONACH: Same objection.
THE WITNESS: All elements of the claim?
MR. JOHNSON: Yeah, under the scenario that we just showed you.

THE WITNESS: So, again, back to my earlier answers, first of all, I haven't had a chance to study this, the representation you had of the eight -- eight tiles being one document as a whole, that's your representation. Given that hypothetical, I would also say, as I said earlier, the blue circle in the middle, which you represented the whole thing was a document, that does not appear to move when you -- when you translate the document.

So, as a result, I would say, given those qualifications, the -- the entirety of these claims are not met. But if you assume, if those things are not present, if the blue thing wasn't there, and
the -- or it moved along with it as a document, it -it appears to meet the claims.

MR. JOHNSON: Q. Well, which limitation is not met in Claim 1 because of the presence of the blue dot?

MR. MONACH: Same objection. THE WITNESS: So, for example, claim -sorry -- element three of Claim 1, it says "In response to detecting the movement translating the electronic document." If the blue dot is part of the electronic document, as I believe I was made to understand in the hypothetical, that would -- part of the document would have to translate it as not -- it's not moving, that blue dot remains stationary through all the reactions -- sorry -- all the intersections that your colleague just did.

So Claim 3 -- sorry -- element three of Claim 1. Element four, again, the -- it says, "While translating the electronic document in the first direction," also would not be met, if the blue thing as part of the document is not being translated.

Again, element seven has the same problem, translating the electronic document, the blue portion, only a part of the document is moving. The entire thing is not moving.

MR. JOHNSON: Okay.
Q And what if the electronic document is defined as -- as what you see on the screen or the $2 \times 4$ tiles without the blue dot?

MR. MONACH: Same objection.
MR. JOHNSON: Q. Does your analysis change?
MR. MONACH: Same objection; vague and ambiguous, as well.

THE WITNESS: I would have to think carefully about that. I haven't considered that in detail. So on the fly here, it may or may not. I -- I would have to reserve that --

MR. JOHNSON: Q. You don't know?
A -- that detailed analysis until I've had a chance to look at that.

Q Okay. Okay.
If you could look at the subsequent claims that we've looked at earlier, 2, 3, 4, 5, 7, 9, 10, 13, 14, 16, and just tell me whether those limitations are met by the $2 x 4$ grid, as the electronic document with -- in Exhibit 114.

MR. MONACH: Same objections.
THE WITNESS: So with regard to Claim 2, let me quickly look at this again, first portion, second portion. So Claim 2 was with regard to the
magnification. Again, similar to the same answer I gave -- to the answer I gave earlier when you went over to Claim 2, I would have to determine for sure whether that was indeed of the same magnification, but if it is, then it would be met. Again, given all the caveats that I -- sorry -- all of the qualifications that I just made with regards to Claim 1 not being met, and Claim 1 is incorporated in Claim 2.

Claim 3 is -- the movement is on the touchscreen display, but since it's incorporated in Claim 1, if Claim 1 has -- is not met, for the reasons

I just gave you, then it would not be met. But if Claim 1 is met, Claim 3 would be met.

Q How about Claim 4?
A Claim 4 --
MR. MONACH: Same objection.
THE WITNESS: -- is the same. I have the same answer as Claim 3, really.

If Claim 1 is met, which, as I've said earlier, it may or may not be met, the object could be a finger, and your colleague has demonstrated that. So I think that would be met, if Claim 1 is met.

What is the next claim? Five? MR. JOHNSON: Five. THE WITNESS: Again, as in my previous
answers, Claim 5 is dependent on Claim 1, and given all of the qualifications I've made with regards to whether Claim 1 is met, if Claim 1 is met, then Claim 5 would be met as the first direction, is one of these three vertical, horizontal, or diagonal directions.

MR. JOHNSON: Q. How about Claim 7?
A Claim 7, I'm gonna give the same answer I gave earlier when you went over this. It's not clear to me that -- whether that electronic document consisting of, as you, yourself, said, $2 x 4$ grid of -- of images is whether that concatenation of imagines is a digital image or not, or whether that's eight different images or something else. So I can't say for sure until I've studied this in more detail.

Q How about Claim 9?
MR. MONACH: Same objection.
THE WITNESS: Claim 9, I would have to look at that very quickly again, just to see. So this is still part of the eight -- eight items, okay.

Claim 9, given the qualifications with regards to Claim 1, and as I've said, Claim 1 may or may not be met, depending on some of the issues there that I've already discussed, and since Claim 9 is dependent on Claim 1, if Claim 1 is met, then, in this
example, if that is indeed the electronic document, it appears that it has, at least in some -- some parts of that document, has a list of documents that would be met.

MR. JOHNSON: Q. How about Claim 10?
MR. MONACH: Same objection.
THE WITNESS: Claim 10, again, I would say it depends on Claim 1, as is clear there, and given all the qualifications I've made with regards to whether Claim 1 is met, would apply here, and if Claim 1 is met, there -- the second direction of movement could be -- I mean, it's possible that it's often the first direction.

MR. JOHNSON: Q. So it would be met?
MR. MONACH: Same objection.
THE WITNESS: It would be met if Claim 1 is met with all my qualifications I've already discussed.

MR. JOHNSON: Q. How about Claim 13?
MR. MONACH: Same objection.
THE WITNESS: Claim 13, again, back to my answer to the same question earlier with regards to the smaller electronic document, I would say it probably is not met, because the area beyond the edge is -- seems to be much more compound than simply a black, gray, solid color, or white, and also it
comprehends Claim 1, so Claim 1, I would give it all of the same qualifications I did earlier.

MR. JOHNSON: Q. So a compound color beyond the edge of the document would not meet Claim 13 ?

MR. MONACH: Same objection; vague.
THE WITNESS: A compound set of visuals, like I'm seeing there, I would say it does not meet Claim 13, because here it says black, gray, a solid color, which I would read to mean one color or not a variety of different colors appearing at the same time, or white.

MR. JOHNSON: Okay.
Q How about Claim 14?
MR. MONACH: Same objection.
THE WITNESS: To the extent that the area beyond the edge is some other content that one could -- could determine to be visually distinct, it would be met if Claim 1 is met, which it's not clear, given all of the qualifications I've already -- I've already --

MR. JOHNSON: Q. How about --
A -- discussed in this deposition.
Q Sorry.
How about Claim 16?
MR. MONACH: Same objection.

THE WITNESS: Can you do that for me again, please.

So Claim 16, again, it depends on Claim 1. So to the extent that Claim 1 is or isn't met would -would impact Claim 16, but the portion of Claim 16 that talks about the elastically attached, that -that appears to be demonstrated in this application. As to whether the whole claim is met would depend on Claim 1, as I've discussed.

MR. JOHNSON: Q. Are the limitations in Claim 19 met by Exhibit 114 running LaunchTiles on the iPAQ?

MR. MONACH: Same objection.
THE WITNESS: I haven't had a chance to study this in great detail, but given that it -- given the functionality I've seen here with the same set of qualifications I've already done with Claim 1, where the language is repeated, just the instructions and the number of the -- the one or more programs stored and executed, that would have to -- that would be met, but the -- the other portions that correspond to a language in Claim 1 may or may not be met, depending on my -- depending on the qualifications I just talked about.

MR. JOHNSON: Q. And how about Claim 20?

Would that be met by Exhibit 114?
MR. MONACH: Same objection.
THE WITNESS: Claim 20, again, similar to my answer for Claim 19, it has all the language of Claim 1, and that would have the same qualifications that I've already discussed, or the portion about the instructions being stored in a computer storage medium, I think that would have to -- that would be present on that device.

MR. JOHNSON: Okay. We need to take a quick break to change the videotape.

MR. AHN: Could we get a total time, too? Thanks.

THE VIDEOGRAPHER: This is the end of Disk No. 4, Volume I.

We are off the record at 6:15 p.m.
(Recess taken.)
THE VIDEOGRAPHER: This is the beginning of Disk No. 5, Volume I.

We are back on the record at 6:25 p.m.
You may proceed.
MR. JOHNSON: Q. So I'd like for you to go to Exhibit 14, the LaunchTile application, and particularly the e-mail application. When you click on that, you'll see a list of names right on the
left-hand side, and I'd like for you to assume that that's the electronic document similar to what we looked at in the Samsung devices, and I'm gonna ask you: Based on what Henry is doing here with respect to LaunchTiles -- just move it forward, so the glare's not -- just tilt it. Tilt it forward.

Does the e-mail application of LaunchTiles on Exhibit 114 meet the limitations of Claim 1?

MR. MONACH: Objection; calls for a legal conclusion; asks the witness to come up with a new opinion unrelated to his declaration at the deposition; incomplete hypothetical; vague and ambiguous.

MR. JOHNSON: So I'll have -- Henry, if you can go through the first portion, second portion, third portion, fourth portion.

THE WITNESS: So where are you now? You seem to just be moving.

MR. LIEN: So this is third portion right here.

THE WITNESS: Can -- can you go back?
What do you mean by first portion, second portion?

MR. LIEN: Yeah, so first portion, second portion, third portion, fourth portion.

THE WITNESS: Can you do that again, please?
MR. LIEN: So first portion, second portion, third portion, fourth portion.

THE WITNESS: Some other thing happened.
MR. JOHNSON: Do it once more. Try and tilt it forward, Henry, because the glare is --

MR. LIEN: Okay.
MR. JOHNSON: Yeah, there you go. Much better.

MR. LIEN: So first portion, second portion, third portion, fourth portion.

THE WITNESS: Okay. So to the extent that I'm seeing this for the first time, I haven't seen that application at all before, so I'm -- I'm giving this opinion on the fly here, I haven't considered it, and it's not a detailed thing I've considered, so I'm looking here. It appears to meet the computer-implemented method preamble.

It appears, giving your representation, that that's a list, and it displays the first portion. It meets the first element. To the extent that it detects a movement, it may meet the second element.

With the third element, it appears to meet that. The fourth element, I do not see that being met, because I'm not seeing an edge of the electronic
document being met.
MR. JOHNSON: Q. Look at the -- look at the bottom where there's spacing there.

A So he's saying Kathryn Thompson is the last one.

MR. JOHNSON: Right.
THE WITNESS: Can you keep moving up? Can you go down?

MR. LIEN: Which way?
THE WITNESS: Do you mind if $I$ try this myself, because I'm having trouble looking at this. MR. JOHNSON: That's fine. Yeah. THE WITNESS: Okay. First portion. So I would say the -- in response to the edge being -- so coming here -- in response to the edge of the document being reached while translating the first direction, it displays an area beyond the edge of document, if the document is a list. It displays a third portion that's smaller, so that meets element six, but when I release my -- release the pen and my -- or my finger, I would assume the finger works the same way, it doesn't appear to -- it does not appear to translate in the second direction until the area beyond the edge of the electronic document is no longer displayed.

So I'm not getting element seven in this.
MR. JOHNSON: Q. But -- so it -- it has elements one through six, but you have an issue with element seven not being present --

MR. MONACH: Same objection.
MR. JOHNSON: Q. -- is that right?
MR. MONACH: Same objection; misstates the prior testimony.

MR. JOHNSON: I'm -- I'm just trying to understand.

THE WITNESS: So based on my very quick first-time view of this, haven't studied it in detail, repeating all the things I just said about this, very quickly here I'm not getting element seven.

MR. JOHNSON: Okay.
THE WITNESS: It appears to meet elements one to six, but I'm not getting element seven.

MR. JOHNSON: Q. So I think you may be scrolling too far beyond the list. So if you go back to the list, and you get to the bottom, and you scroll up so it displays the portion beyond the edge, and then you release it.

A I'm not getting it. I've got past Kathryn, with just one pixel, and it's not --

MR. LIEN: Can I?

MR. JOHNSON: Tilt it, Henry. Yep.
Q See that?
A Keep going.
Q Doesn't that meet claim limitation seven?
MR. MONACH: Same -- same objection.
THE WITNESS: I think I would have to study
that in detail. It's not clear to me that I -- it definitely meets the edge -- reaches the edge. When I know that I reached the edge because I've gone -- I've already explored that list further, but just looking at that and maybe there's something beyond that, I don't know. It's only when it goes much further that it clearly tells me that I've reached the edge. So, again, I would caveat this by saying I have to study this in detail --

MR. MONACH: Sorry.
THE WITNESS: -- before making that determination.

MR. MONACH: Sorry.
Mr. Videographer, are we at seven hours? Two minutes? Okay.

MR. JOHNSON: Okay.
Q Can you tell me if this meets the limitations of Claims 19 and 20?

MR. MONACH: Same objection.

THE WITNESS: So to the extent that if it meets the elements of Claim 1, which I've just discussed it may not, if it didn't meet Claim 1, then a lot of the language in Claim 19 is not met or the portion that talks about one or more programs with instructions in Claim 19, that, I think, would be met.

MR. JOHNSON: Q. And what about Claim 20?
MR. MONACH: Same objection.
THE WITNESS: Same kind of answer with Claim 20. To the extent that the elements of Claim 20 that regard -- relate to Claim 1, they may not be met, as I've just discussed with Claim 1, but the portion about a readable storage medium having stored their instructions, which executed that portion, would be met.

MR. JOHNSON: Q. Is the -- what we've seen in Exhibit 114, LaunchTiles with the iPAQ, the best piece of prior art you've seen for the '381 patent claims?

MR. MONACH: Object to the form of the question. Objection; asking the witness to form a legal conclusion with an incomplete hypothetical; asking him to come up with a new opinion on the fly.

THE WITNESS: So I don't think I can answer with any degree of certainty, as I've discussed
repeatedly during this deposition, I have not studied all of the prior art in any detail. I have not done an invalidity or validity analysis, so it is certainly one piece of prior art that I'm seeing in detail today. Whether -- how that compares to other pieces of prior art, I would have to do that analysis.

MR. JOHNSON: Q. Is that better than the prior art that was cited during the reexamination?

MR. MONACH: Same objection; assumes facts not in evidence that it's prior art.

THE WITNESS: I -- as I said earlier, I
haven't studied the -- the -- the prior art that was cited during the reexam in detail to form a validity or invalidity detailed opinion, so I cannot make that comparison right now.

I would also say that it's not clear to me that this -- this application shown to me today is actual prior art. I know the paper is prior art, the CHI 2005 paper. The application itself, I -- I don't know whether that's prior art or whether it was written subsequent to the date of the patent.

MR. JOHNSON: Q. Based on the -- the prior art that you've looked at --

MR. MONACH: We're at seven hours -- we're -we're done.

MR. JOHNSON: Are you leaving at this point? MR. MONACH: We're -- you've had your seven hours. This -- this deposition is over. You had lots of time to ask him about his opinions. You've spent hours and hours doing it, seven hours, including repetitive questioning. We told you we're -- we've told you in advance that these are seven-hour depositions. We haven't agreed to a longer time. MR. JOHNSON: So are you -MR. MONACH: The deposition is over. MR. JOHNSON: So you're not gonna let me ask any more questions?

MR. MONACH: Correct.
MR. JOHNSON: Okay. Well, we're gonna keep the deposition open, and I can't think of any part of the deposition that should be designated confidential. You know, at the very outset, you designated this confidential, and it's putting us at great prejudice in doing so, and you know that, and so I ask that you right now dedesignate the transcript confidential, and if you want to take the time to designate portions of it confidential between now and tomorrow morning, that's fine, but, you know, our opposition is due, and there shouldn't be hardly any part of this transcript that's designated confidential.

MR. MONACH: Well, I disagree that you're at any prejudice. The interim protective order says what it says. You chose to ask him about ITC proceedings and other parties' proceedings, for example, and there's no requirement on us to do it overnight.

I mean, you can use the transcript or not use it, as you see fit. I'm not saying we're going to designate or dedesignate after your filing date or before your filing date. Take it under advisement.

MR. JOHNSON: Well, when can $I$ get the transcript dedesignated from you?

MR. MONACH: I don't know the answer to that question. I'm not gonna make a commitment to you on the record here today.

MR. JOHNSON: How about -- how about -- how about within two days?

MR. MONACH: I just told you I'm not gonna -I'm not gonna negotiate about it or make a commitment to you on the record here.

MR. JOHNSON: Well, that's just completely unacceptable, so we'll have to take it up as we see fit.

Thank you. The deposition is still open from our standpoint, and we'll go from there. Thank you. MR. MONACH: All right. From our -- from our
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Page 335 perspective，no surprise，I suspect，the deposition is over．
THE VIDEOGRAPHER：This is the end of today＇s deposition．
We are off the record at 6：37 p．m．
The master disk will be held by TSG．
（WHEREUPON，the deposition ended at 6：37 p．m．）
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            Page 335
        THE VIDEOGRAPHER: This is the end of today's
        deposition.
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    CERTIFICATE OF REPORTER

I, ANDREA M. IGNACIO HOWARD, hereby certify that the witness in the foregoing deposition was by me duly sworn to tell the truth, the whole truth, and nothing but the truth in the within-entitled cause;

That said deposition was taken in shorthand by me, a Certified Shorthand Reporter of the State of California, and was thereafter transcribed into typewriting, and that the foregoing transcript constitutes a full, true and correct report of said deposition and of the proceedings which took place;

That I am a disinterested person to the said action.

IN WITNESS WHEREOF, I have hereunto set my hand this 17th day of August, 2011.


ANDREA M. IGNACIO HOWARD, RPR, CCRR, CLR, CSR NO. 9830

