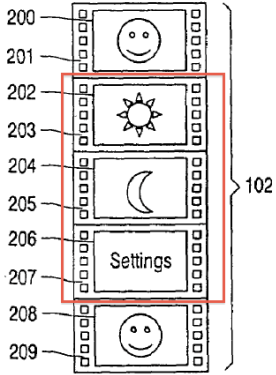


EXHIBIT 5

Exhibit 5: U.S. Patent No. 7,469,381 and WO 01/029702 / U.S. Patent No. 7,152,210 to Van Den Hoven et al.

U.S. Pat. No. 7,469,381	WO 01/029702 / U.S. Patent No. 7,152,210 to Van Den Hoven et al. ¹
Claim 1	
A computer-implemented method, comprising:	<p>Van Den Hoven discloses a computer-implemented method.</p> <p>For example, Van Den Hoven discloses that “[a] general purpose computer can be programmed to function as the device by means of a computer program product.” Van Den Hoven at Abstract.</p>
(a) at a device with a touch screen display	<p>Van Den Hoven discloses a computer-implemented method at a device with a touch screen.</p> <p>For example, Van Den Hoven also discloses that the device can have a touch screen input. For example, Van Den Hoven discloses that an “input stroke could be made with a finger, or with a stylus or other input device.” Van Den Hoven at p. 6, lns. 21-22.</p>
(b) displaying a first portion of an electronic document;	<p>Van Den Hoven discloses displaying a first portion of an electronic document. For example, Van Den Hoven discloses “an easy, simple and intuitive way to browse an image collection” by “continuously scrolling the sequence [of images] in the browsing area.” Van Den Hoven at p.2, lns. 16-20. This image collection is an electronic document comprised of individual images.</p> <p>As the method in Van Den Hoven scrolls through the sequence of images, it will display a first portion of the list of images:</p>

¹ Cites are to WO 01/029702 .

	 <p style="text-align: center;">FIG. 2</p>
<p>(c) detecting a movement of an object on or near the touch screen display;</p>	<p>Van Den Hoven discloses that the device can have a touch screen input that is responsive to either a finger or stylus. For example, Van Den Hoven discloses that an “input stroke could be made with a finger, or with a stylus or other input device.” Van Den Hoven at p. 6, lns. 21-22.</p>
<p>(d) in response to detecting the movement, translating the electronic document displayed on the touch screen display in a first direction to display a second portion of the electronic document,</p>	<p>Van Den Hoven discloses in response to detecting the movement of the finger or stylus, translating the electronic document in a first direction to display a second portion of the electronic document.</p> <p>For example, Van Den Hoven discloses that “a speed of the scrolling of the sequence is varied in accordance with a speed of an input stroke in the browsing area.” Van Den Hoven at p. 3, lns. 18-19. Van Den Hoven further discloses that “the direction of an input stroke in the browsing area 103 can be used to vary the direction of the scrolling 107 of the sequence 102. If the input stroke is in the direction opposite to the direction of the scrolling 107, the scrolling 107 should now go in the reverse direction. The speed of the scrolling 107 can be made dependent on the speed of the input stroke, as described above.” <i>Id.</i> at p. 6, ln. 33 to p. 7, ln 3.</p> <p>Such a change in the scrolling speed or direction in response to the detecting of an input stroke will display a second portion of the sequence of images that will be different from the first portion. For example, Van Den Hoven discloses:</p>

	<p>The browsing means 101 is arranged to show the sequence 102 by continuously scrolling 107 the sequence 102 in the browsing area 103. The sequence 102 is usually too large to fit in the browsing area completely. This is indicated in FIG. 1 by showing the portions of the sequence 102 that do not fit in the browsing area 103 in a dashed form. The scrolling 107 will result in those portions being shown eventually.</p> <p>Van Den Hoven at p. 5, Ins. 17-21. In this way, Van Den Hoven will display different portions of the image sequence as it scrolls.</p>
<p>(e) wherein the second portion is different from the first portion:</p>	<p>The second portion of the sequence of images displayed in response to the change in scrolling speed or direction will be different from the first portion, since the sequence is being scrolled.</p> <p>For example, Van Den Hoven discloses:</p> <p style="padding-left: 40px;">The browsing means 101 is arranged to show the sequence 102 by continuously scrolling 107 the sequence 102 in the browsing area 103. The sequence 102 is usually too large to fit in the browsing area completely. This is indicated in FIG. 1 by showing the portions of the sequence 102 that do not fit in the browsing area 103 in a dashed form. The scrolling 107 will result in those portions being shown eventually.</p> <p>Van Den Hoven at p. 5, Ins. 17-21. In this way, Van Den Hoven will display different portions of the image sequence as it scrolls.</p>
<p>(f) 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 touch screen: displaying an area beyond the edge of the document, and</p>	<p>Van Den Hoven discloses an electronic document comprised of multiple digital images (images 200, 202, 204 and 208 in Fig. 2) surrounded by a “border area” (shown as, for example, 201, 203, 205 and 209 in Fig. 2). The top or bottom areas of this “border area” will be shown during a vertical scrolling operation when the image sequence scrolls to, and then beyond, its upper or lower edge. Van Den Hoven discloses that the display of this area beyond the edge of the document “makes the display of the sequence [] easy to recognize for a user.” Van Den Hoven p. 7, Ins. 18-25.</p>

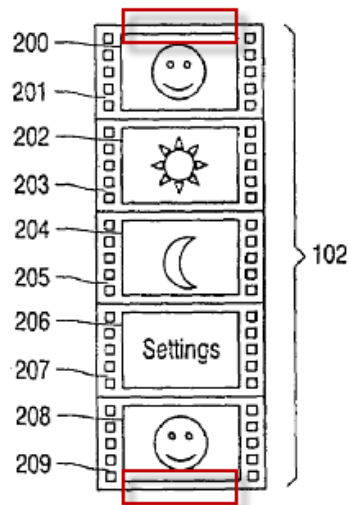
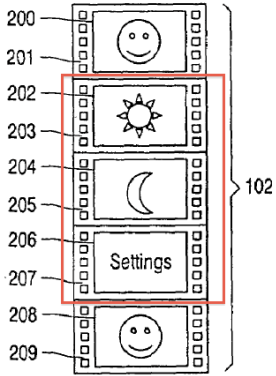


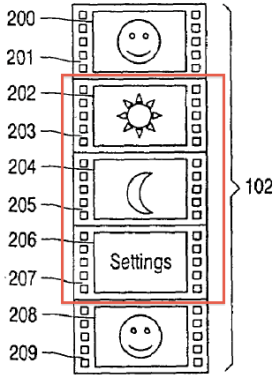
FIG. 2

Additionally, in my opinion, a person of ordinary skill in the art would understand that electronic documents, like their real-life counterparts, can be arranged in a hierarchy. Accordingly, the electronic document recited in claim 1 may itself contain sub-documents. Likewise, the electronic document recited in claim 1 may itself be a sub-document within the hierarchy of some other electronic document. Thus, in the context of Van Den Hoven, a subset of the digital images, for example only images 202, 204, and 206 in Fig 2, can be viewed as the electronic document. Scrolling past these digital images, images 200 and 208 can be viewed as areas beyond the edge of the document.

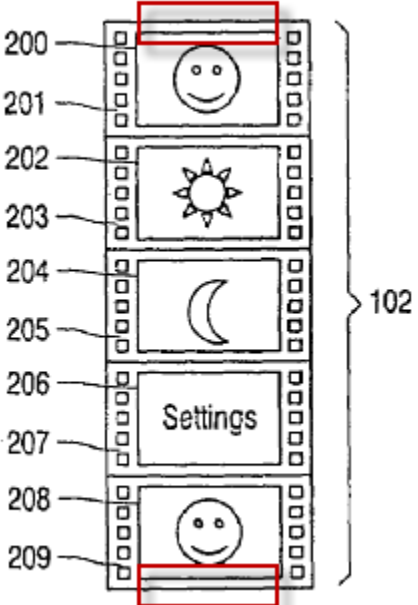
	 <p style="text-align: center;">FIG. 2</p>
<p>(g) displaying a third portion of the electronic document, wherein the third portion is smaller than the first portion; and</p>	<p>As noted above, Van Den Hoven discloses a “border area” surrounding the electronic document. When the top or bottom portion of this “border area” is displayed during vertical scrolling, a third portion of the electronic document is displayed that is smaller than the first portion, as a result of the display of the upper or lower “border area.”</p> <p>Similarly, if the electronic document is a subset of the digital images, for example only images 202, 204, and 206 in Fig 2, when some or all of images 200 or 208 are displayed, a third portion of the electronic document is displayed, which is smaller than the first portion as a result of the display of some or all of images 200 or 208.</p>
<p>(h) in response to detecting that the object is no longer on or near the touch screen display, translating the electronic document in a second direction until the area beyond the edge of the electronic document is no longer displayed to display a fourth portion of the electronic document,</p>	<p>Van Den Hoven does not explicitly disclose, in response to detecting that the object is no longer on or near the touch screen display, translating the electronic document in a second direction until the area beyond the edge of the electronic document is no longer displayed to display a fourth portion of the electronic document. However, in my opinion, all the ingredients for doing so are contained in Van Den Hoven. First, Van Den Hoven discloses mechanisms for detecting an object’s contact with the touch screen display and taking actions in response to detecting that an object is no longer on or near the touch screen display. Van Den Hoven discloses that scrolling operations may be dependent on when a user’s finger or stylus ceases contact with the screen, such that the scrolling behavior may depend on when the stroking gesture ends. For example, Van Den Hoven discloses that “[i]f the stroking gesture ends in side the flow zone 102, the flow stops or de-accelerates,</p>

	<p>dependent on whether friction is simulated.” Van Den Hoven p. 6, Ins. 28-32.</p> <p>Second, Van Den Hoven discloses a response that is a translation in a reverse direction. For example, Van Den Hoven discloses that “[t]he scrolling 107 of the sequence 102 can be made infinitely long by . . . automatically reversing the direction of the scrolling 107.” Van Den Hoven at p. 6, Ins. 1-4. When the document reverses direction, the area beyond the edge of the document (which as discussed above could be the “border area” at the top or bottom of the image collection, or alternatively could be images appearing above or below the subset of images comprising the electronic document) will no longer be displayed, and a different portion of the image collection will be displayed as a result of the scrolling operation.</p> <p>In light of these disclosures, in my opinion it would be obvious in light of Van Den Hoven to monitor when “the stroking gesture ends,” and at that point, to reverse the direction of the image scrolling.</p>
(i) wherein the fourth portion is different from the first portion.	In the reverse scrolling operation described above, the fourth portion of the sequence of images will at some point be different from the first portion, since the sequence is being scrolled through in the opposite direction.
Claim 2	
The computer-implemented method of claim 1, wherein the first portion of the electronic document, the second portion of the electronic document, the third portion of the electronic document, and the fourth portion of the electronic document are displayed at the same magnification.	Van Den Hoven discloses displaying the portions of the document at constant magnification. Van Den Hoven discloses that the images in the image sequence can be shown “using thumbnails,” which are “usually smaller than the actual image, so that a whole sequence of representations can be shown at once on the computer or television screen, rather than just one or two images at a time.” Van Den Hoven at p. 1, Ins. 24-29. Van Den Hoven does not discuss changing the magnification of these thumbnails, or of the image sequence, during the scrolling of the document.
Claim 3	
The computer implemented method of claim 1, wherein the	Van Den Hoven discloses movement of an object on a touch screen display. For example, Van Den Hoven discloses that an “input stroke could be made with a finger, or with a stylus or other input

movement of the object is on the touch screen display.	device.” Van Den Hoven at p. 6, Ins. 21-22.
Claim 4	
The computer-implemented method of claim 1, wherein the object is a finger.	Van Den Hoven discloses that the object used as an input device can be a finger. Van Den Hoven at p. 6, Ins. 21-22 (“This input stroke could be made with a finger, or with a stylus or other input device.”).
Claim 5	
The computer-implemented method of claim 1, wherein the first direction is a vertical direction, a horizontal direction, or a diagonal direction.	<p>Van Den Hoven discloses that the first direction is vertical, horizontal, or diagonal.</p> <p>For example, Van Den Hoven discloses:</p> <p style="padding-left: 40px;">A typical way of implementing scrolling 107 is by presenting the representations in a linear list, either horizontally or vertically, which is moved in an appropriate direction. For a vertical list, as shown in FIG. 1, the sequence 102 is moved downward. Of course, other directions are also possible. It is not even necessary for the representations to be presented as a linear list. The browsing area 103 could be positioned in a curved form around the display area 106, so that the sequence 102 is scrolled around the display area 106. The browsing area 103 could also be positioned at the straight or curved edge of the device, so that it is easy to locate and use for a user. The scrolling 107 could also follow a semi-random pattern in the browsing area 103.</p> <p>Van Den Hoven at p. 5, Ins. 22-30.</p>
Claim 6	
The computer-implemented method of claim 1, wherein the electronic document is a web page.	Currently not at issue.
Claim 7	
The computer-implemented method of claim 1, wherein the	Van Den Hoven discloses the electronic document is at least one digital image.

<p>electronic document is a digital image.</p>	 <p style="text-align: right;">FIG. 2</p>
<p>Claim 8</p>	
<p>The computer-implemented method of claim 1, wherein the electronic document is a word processing, spreadsheet, email or presentation document.</p>	<p>Currently not at issue.</p>
<p>Claim 9</p>	
<p>The computer-implemented method of claim 1, wherein the electronic document includes a list of items.</p>	<p>Van Den Hoven discloses the electronic document includes a list of items. For example, Van Den Hoven discloses scrolling through a sequence of images, which is a list of items. Van Den Hoven discloses that “the browsing means is arranged to show the sequence by continuously scrolling the sequence in the browsing area.” Van Den Hoven at p. 1, lns 18-20.</p>
<p>Claim 10</p>	
<p>The computer-implemented method of claim 1, wherein the second direction is opposite the first direction</p>	<p>Van Den Hoven discloses that the second direction is opposite the first direction. For example, Van Den Hoven discloses an embodiment in which the scrolling of the sequence will automatically reverse when the end of the sequence is encountered. See Van Den Hoven at p. 6, lns. 1-4. Likewise, Van Den Hoven discloses that “the direction of an input stroke in the browsing area 103 can be used to vary the direction of the scrolling 107 of the sequence 102. If the input stroke is in the direction opposite to the direction of the scrolling 107, the scrolling 107 should now go in the reverse direction. The speed of the scrolling 107 can be made dependent on the speed of the input stroke, as described above.” <i>Id.</i> at p. 6, ln. 33 to p. 7, ln 3.</p>

Claim 11	
The computer-implemented method of claim 1, wherein translating in the first direction prior to reaching an edge of the document has an associated speed of translation that corresponds to a speed of movement of the object.	Currently not at issue.
Claim 12	
The computer-implemented method of claim 1, wherein translating in the first direction is in accordance with a simulation of an equation of motion having friction.	Currently not at issue.
Claim 13	
The computer-implemented method of claim 1, wherein the area beyond the edge of the document is black, gray, a solid color, or white.	Van Den Hoven discloses the area beyond the edge of the document is black, gray, a solid color, or white. For example the horizontal portions of the border areas 201, 203, 205, 207, and 209 in Fig. 2, beyond the edge of the electronic document, are shown as area of solid color:

	 <p style="text-align: right; font-size: 24pt; font-weight: bold;">FIG. 2</p>
<p>Claim 14</p>	
<p>The computer-implemented method of claim 1, wherein the area beyond the edge of the document is visually distinct from the document.</p>	<p>Van Den Hoven discloses the area beyond the edge of the document is visually distinct from the document. For example, the border areas 201, 203, 205, 207, and 209 in Fig. 2 are visually distinct from the electronic document.</p>
<p>Claim 15</p>	
<p>The computer-implemented method of claim 1, wherein translating the document in the second direction is a damped motion.</p>	<p>Currently not at issue.</p>
<p>Claim 16</p>	
<p>The computer-implemented</p>	<p><i>See claim 1(f).</i></p>

<p>method of claim 1, wherein changing from translating in the first direction to translating in the second direction until the area beyond the edge of the document is no longer displayed makes the edge of the electronic document appear to be elastically attached to an edge of the touch screen display or to an edge displayed on the touch screen display.</p>	
<p>Claim 17</p>	
<p>The computer-implemented method of claim 1, wherein translating in the first direction prior to reaching the edge of the electronic document has a first associated translating distance that corresponds to a distance of movement of the object prior to reaching the edge of the electronic document; and wherein displaying an area beyond the edge of the electronic document comprises translating the electronic document in the first direction for a second associated translating distance, wherein the second associated translating distance is less than a distance of movement of the</p>	<p>Currently not at issue.</p>

object after reaching the edge of the electronic document.	
Claim 18	
The computer-implemented method of claim 1, wherein translating in the first direction prior to reaching the edge of the electronic document has a first associated translating speed that corresponds to a speed of movement of the object, and wherein displaying an area beyond the edge of the electronic document comprises translating the electronic document in the first direction at a second associated translating speed, wherein the second associated translating speed is slower than the first associated translating speed.	Currently not at issue.
Claim 19	
A device, comprising:	<i>See</i> preamble of claim 1.
a touch screen display;	<i>See</i> claim 1(a).
one or more processors;	<i>See</i> preamble of claim 1.
memory; and	<i>See</i> preamble of claim 1.
one or more programs, wherein the one or more programs are stored in the memory and configured to be executed by the one or more processors, the programs including:	<i>See</i> preamble of claim 1.
instructions for displaying a	<i>See</i> claim 1(b).

first portion of an electronic document;	
instructions for detecting a movement of an object on or near the touch screen display; instructions for translating the electronic document displayed on the touch screen display in a first direction to display a second portion of the electronic document, wherein the second portion is different from the first portion, in response to detecting the movement;	<i>See claim 1(c) – 1(e).</i>
instructions for displaying an area beyond an edge of the electronic document and displaying a third portion of the electronic document, wherein the third portion is smaller than the first portion, in response to the 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 touch screen display; and	<i>See claim 1(f) – 1(g).</i>
instructions for translating the electronic document in a second direction until the area beyond the edge of the electronic document is no longer	<i>See claim 1(h) – 1(i).</i>

displayed to display a fourth portion of the electronic document, wherein the fourth portion is different from the first portion, in response to detecting that the object is no longer on or near the touch screen display.	
Claim 20	
A computer readable storage medium having stored therein instructions, which when executed by a device with a touch screen display, cause the device to:	<i>See</i> preamble of claim 1 and claim 1(a).
display a first portion of an electronic document;	<i>See</i> claim 1(b).
detect a movement of an object on or near the touch screen display; translate the electronic document displayed on the touch screen display in a first direction to display a second portion of the electronic document, wherein the second portion is different from the first portion, in response to detecting the movement;	<i>See</i> claim 1(c) – 1(e).
display an area beyond an edge of the electronic document and display a third portion of the electronic document, wherein the third portion is smaller than	<i>See</i> claim 1(f) – 1(g).

<p>the first portion, if the edge of the electronic document is reached while translating the electronic document in the first direction while the object is still detected on or near the touch screen display; and</p>	
<p>translate the electronic document in a second direction until the area beyond the edge of the electronic document is no longer displayed to display a fourth portion of the electronic document, wherein the fourth portion is different from the first portion, in response to detecting that the object is no longer on or near the touch screen display.</p>	<p><i>See claim 1(h) – 1(i).</i></p>