Exhibit D

July 14, 2011

## Via Overnight Courier

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Re: Overview of the Triviality of the Patents Asserted by Microsoft Corp. During PreSuit Discussions with Barnes \& Noble and in Connection with the Certain Handheld Electronic Computing Devices, Related Software and Components Thereof, ITC Inv. No. 337-TA-769 and Microsoft Corp. v. Barnes \& Noble, Inc. et al., Case No. 2:11-cv-00485 (W.D. Wash.) Matters

Dear Sirs and Madams:
Following up on the July 12, 2011 meeting between representatives of Barnes \& Noble, Inc. ("Barnes \& Noble") and the Department of Justice, I would like to provide you with an overview of the triviality of the patents that Microsoft Corp. ("Microsoft") initially claimed

Barnes \& Noble was infringing during discussions in which Microsoft demanded that Barnes \&
Noble pay Microsoft a per device royalty for Barnes \& Noble's use of the Android operating
system for its Nook ${ }^{\mathrm{TM}}$ and Nook Color ${ }^{\mathrm{TM}}$ e-reader products as well as of those patents that have been asserted by Microsoft against Barnes \& Noble's Nook ${ }^{\text {TM }}$ ("Nook") and Nook Color ${ }^{\text {TM }}$ ("Nook Color") e-reader products in connection with the above captioned U.S. International Trade Commission ("ITC") and U.S. District Court for the Western District of Washington actions.

Microsoft has told Barnes \& Noble that it has over 60,000 patents. Of the patents in its portfolio, Microsoft asserted only five patents against Barnes \& Noble in the litigations (the same patents were asserted in both litigations). Prior to filing the actions, Microsoft had threatened Barnes \& Noble with infringement claims in connection with six patents, only one of which was asserted in the litigations. All ten of the patents from its portfolio that Microsoft has identified to and asserted against Barnes \& Noble are trivial in terms of both their commercial significance and patentability.

The patents and asserted claims in the ITC and District Court actions are:

- U.S. Patent No. 5,778,372 to Cordell et al. ("the '372 patent"), entitled "Remote Retrieval and Display Management of Electronic Document with Incorporated Images"; claims 1 and 5 were asserted against the Nook and Nook Color;
- U.S. Patent No. 5,889,522 to Chew et al. ("the '522 patent"), entitled "System Provided Child Window Controls"; claims 1, 2, and 12 were asserted against the Nook Color;
- U.S. Patent No. $6,891,551$ to Keely et al. ("the '551 patent"), entitled "Selection Handles in Editing Electronic Documents"; claims 1-3, 5, and 7-11 were asserted against the Nook and Nook Color;
- U.S. Patent No. 6,957,233 to Beezer et al. ("the '233 patent"), entitled "Method and Apparatus for Capturing and Rendering Annotations for Non-Modifiable Electronic Content"; claims 21 and 22 were asserted against the Nook Color; and
- U.S. Patent No. 6,339,780 to Shell et al. ("the ' 780 patent"), entitled "Loading Status in a Hypermedia Browser Having a Limited Available Display Area"; claims 1-6, 9-14, 17-26, and 29-42 were asserted against the Nook.

In addition to the ' 780 patent (the only patent previously identified by Microsoft that was also asserted in the ITC and District Court actions), the other patents and claims identified by Microsoft in its pre-suit threats against Barnes \& Noble are:

- U.S. Patent No. 5,579,517 to Reynolds et al. ("the ' 517 patent"), entitled "Common Name Space for Long and Short Filenames"; claim 1 was asserted against the Nook;
- U.S. Patent No. 5,652,913 to Crick et al. ("the '913 patent"), entitled "System for Providing Intercommunication of I/O Access Factors Stored in a Shared Data Structure, Accessed and Maintained by Both File System and Device Driver"; claim 23 was asserted against the Nook;
- U.S. Patent No. 5,758,352 to Reynolds et al. ("the ' 352 patent"), entitled "Common Name Space for Long and Short Filenames"; no specific claims were identified;
- U.S. Patent No. 6,791,536 to Keely et al. ("the ' 536 patent"), entitled "Simulating Gestures of a Pointing Device Using a Stylus and Providing Feedback Thereto"; claim 14 was asserted against the Nook; and
- U.S. Patent No. $6,897,853$ to Keely et al. ("the ' 853 patent"), entitled "Highlevel Active Pen Matrix"; claim 7 was asserted against the Nook.

These Microsoft patents can be divided into several basic categories: (1) the '372 and ' 780 patents relate to web browsers; (2) the ' 551 and ' 233 patents relate to electronic document annotation and highlighting; (3) the '522 patent relates to resources provided by operating systems; (4) the ' 517 and ' 352 patents deal with compatibility with file names once employed by old, unused, and outmoded operating systems; (5) the '536 and ' 853 patents relate to simulating mouse inputs using non-mouse devices; and (6) the '913 patent relates to storing input/output access factors in a shared data structure. Importantly, while Microsoft's infringement allegations
appear to be centered on the Nook's and Nook Color's use of the Android operating system ("Android"), none of these patents are specific to or describe the novel technical features of Android. Microsoft cannot argue that it invented Android which, in fact, was the result of the exemplary effort of many talented programmers, including programmers in the open source community. Rather, as this letter highlights, the patents that Microsoft has asserted against Barnes \& Noble - patents that are part of the same portfolio that Microsoft has publicly alleged allows it to dominate the entire cell phone, tablet, e-reader, and other mobile device operating system market - are nothing more than trivial implementations of known, non-essential features of an operating system. These trivial features, long present in the prior art, include highlighting documents, displaying the foreground of an electronic document before downloading background content, and locating a loading status icon over a content area rather than in a tool bar area. Moreover, and as one would expect in view of the triviality of the Microsoft patents, Barnes \& Noble has formidable invalidity and non-infringement defenses in connection with the patent claims asserted by Microsoft in the litigations. Several (but certainly not all) of these defenses are summarized in this letter. Simply stated, the very nature of the patents asserted by Microsoft belies their public assertion of total dominance over the Android mobile operating system.

The following includes a detailed discussion of the triviality of the asserted Microsoft patents in light of their commercial insignificance and legal weakness in terms of invalidity and non-infringement, namely for each the five patents asserted in the ITC and District Court actions, and a summary of the other patents Microsoft had identified to Barnes \& Noble prior to filing the suits.

## I. '372 Patent (Web Browser Background Image Loading)

The ' 372 patent was filed April 18, 1996. Very generally, the patent relates to an outmoded system for retrieving an electronic document like a webpage that includes an embedded background image, which may have bearing on very old web browsers connected to the Internet via slow, dial-up connections, but has little application in the context of improved, modern Internet connections. Electronic documents such as webpages typically include numerous graphics or images to be displayed along with other types of content, such as text or links. Images and pictures to be displayed, such as background images, may be larger than the total size of the particular document. Thus, large background images can delay the rendering of the entire document if the document is being downloaded via slow Internet connections that were prevalent when the ' 372 patent was filed. The ' 372 patent purports to describe displaying a portion of the document's content prior to receiving the background image, allowing the user to see a partial rendering of the electronic document prior to receiving all of its parts. Once the background image has been received, the ' 372 patent provides that the document is redrawn to include the background image. This process is shown in the following figure from the '372 patent:


In other words, the entire purpose of the system set forth in the '372 patent is to create the "perception" of the faster display of webpages when connected to the Internet via a slow, dial-up connection by delaying the download and display of background images.

## A. Invalidity

As an example of its many invalidity defenses, the prior art web browser Netscape Navigator 2.063 and documents describing this browser, provide Barnes \& Noble with a substantial defense that both asserted claims 1 and 5 of the ' 372 patent are invalid as anticipated. Documentation indicates that this browser was available by November 24, 1995, approximately five months before the '372 patent was filed. Thus, Netscape Navigator 2.0 b 3 and documents describing this product are prior art to the ' 372 patent under 35 U.S.C. § 102(a).

Netscape Navigator 2.0 b 3 is a particularly apt prior art reference because the ' 372 patent itself discusses and points out supposed shortcomings of an even earlier version of Netscape Navigator. (See Col. 2, lines 18-19.) The '372 patent explains that this earlier version of Navigator would otherwise meet all of the limitations of the patent's claims, except that it
"requests the background image and waits for the background image to arrive before displaying the HTML document. Once the background image is received, the Navigator then draws an initial display of the HTML document...." (Col. 2, lines 18-34.) Release notes and other documentation relating to Netscape Navigator 2.0b3, which again was available five months before the ' 372 patent was filed, state that this version of Navigator "no longer waits for the background image to completely arrive before displaying any text and images on the page. When the background image has been decoded the page is redrawn to include the background." This is the precise functionality that lies at the heart of claims 1 and 5 of the ' 372 patent.

Among other reasons for invalidity, Barnes \& Noble also has a substantial argument that asserted claims 1 and 5 of the ' 372 patent are invalid under 35 U.S.C. $\S 112$ for failing to provide an adequate written description of, or enable one skilled in the art to use, the subject matter embraced by those claims. While the specification notes the desired functionality of the claimed web browser, it provides no software code, points to no exemplary web browsers, and provides no other technical details explaining how a browser should actually go about producing an initial display without a background image, and then redraw that display with a background image. (See Col. 8, line 38 to Col. 9, line 57.) This dearth of disclosure calls into question whether Microsoft even created a browser that fell within the scope of the claims of the ' 372 patent prior to its filing date. Further, if Microsoft did create such a browser, its failure to include technical details regarding that browser in the specification of the ' 372 patent violated § 112's mandate that the specification set forth "the best mode contemplated by the inventor of carrying out [the] invention."

In sum, Barnes \& Noble maintains that the '372 patent inadequately describes a
technique for downloading and displaying an electronic document having an embedded background image, and is anticipated and unpatentable in any event because the very functionality it purports to claim was already provided by a prior art Netscape browser before Microsoft filed its patent application. Moreover, as explained in further detail below, the very purpose of the ' 372 patent was to deal with the long wait times users were subjected to in the 1996 time frame (due to the use of slow, dial-up modems) when downloading and displaying complex electronic documents like webpages with embedded background images. Since Barnes \& Noble's Nook and Nook Color products employ modern, high speed Internet connectivity and other related technology, the purported reduction in the perception of delay provided by the browser set forth in the ' 372 patent, and the prior art Netscape browser is irrelevant to and simply has no bearing on those products.

## B. Non-Infringement

Barnes \& Noble also has several substantial non-infringement defenses in connection with asserted claims 1 and 5 of the ' 372 patent. By way of example, at least the following required claim limitations are missing from the accused Nook and ${ }^{\prime}$ Nook Color products:

- "drawing an initial display of the electronic document without the background image prior to receiving the background image from the remote site" (claim 1) and "drawing an initial display of the electronic document without the background image after receiving the electronic document from the remote site and before receiving the background image from the remote site" (claim 5). These claim limitations require a browser that draws an "initial display" prior to receiving $\underline{\text { any }}$ of the background image. Thus, the claims exclude browsers that receive some part of a background image prior to or during the drawing of the "initial display."

Microsoft's own infringement contentions state on information and belief that both the Nook's and Nook Color's browser fall into this latter category and "draw[] an initial display of [a] retrieved web page without the background image, as it continues to receive, but has not completed receiving, the background image." Barnes \& Noble will also be able to assert that these limitations are not satisfied under the doctrine of equivalents' either. Among other things, reading the claims on a device that receives at least a portion of the background image prior to "drawing an initial display" would vitiate the claim limitations.

- "drawing an initial display of the electronic document without the background image prior to receiving the background image from the remote site" (claim 1), "drawing an initial display of the electronic document without the background image after receiving the electronic document from the remote site and before receiving the background image from the remote site" (claim 5), and "redrawing the electronic document superimposed over the background image after receiving the background image from the remote site" (claims 1,5). These and other limitations together appear to require (a) a delay perceptible to the user between the "drawing an initial display" and the later "redrawing" and (b) a browser that parses an electronic document looking for background images and, in the event such an image is located, delays the display of that image until after other content is displayed in all circumstances. Further, the limitations make clear that the ' 372 patent's claims apply to an outmoded web browser designed to enhance the browser's perceived responsiveness when downloading webpages via a slow, dial-up Internet connection. Thus, the patent does not apply to far more modern devices like the Nook and Nook Color, which are able to access the Internet at speeds far faster than was available in 1996. As an example of this, at least with respect to the Nook Color,
on certain websites there is no delay between the initial drawing and the appearance of the background image.
- "redrawing the electronic document superimposed over the background image after receiving the background image from the remote site" (claims 1,5). These claim limitations are not satisfied by the Nook and Nook Color because it does appear to "redraw" the already drawn portions of the "electronic document." Moreover, during prosecution Microsoft argued that the subject matter claimed by the ' 372 patent was distinguishable from prior art because it "twice displays a document requested to be retrieved from a remote site." (U.S. App. 08/634,380, 10/20/97 Amendment, at 4.) These prosecution arguments will allow Barnes \& Noble to assert that prosecution history estoppel prevents Microsoft from alleging infringement of this limitation under the doctrine of equivalents.

In addition, for each of the limitations outlined above, the doctrine of equivalents is inapplicable because the differences between the Nook and Nook Color and the structure and features required by the claims are not insubstantial.

## II. '522 Patent (Operating System Provided Tabs)

The ' 522 patent was filed December 13, 1994. The patent relates to a single, simple tool provided by an operating system (such as Windows) that allows applications running on that operating system to have a common look and feel. Since operating systems provide many such tools, the patent amounts to nothing more than a trivial design choice. In particular, and despite the fact that this concept is in the prior art, the '522 patent's method allows for the creation of tabs. The tabs are analogous to dividers like those found in a notebook or to labels found in a file cabinet, and allow a user of an application to navigate between multiple pages of information
in the same window by clicking on the tabs. The following is an exemplary figure from the '522 patent showing these tabs:


FIG. 11

## A. Invalidity

A programming guide published by IBM in connection with its OS/2 2.0 operating system, entitled IBM OS/2 2.0 Programming Guide Volume II ("the Guide"), provides Barnes \& Noble with one of many substantial defenses that asserted claims 1, 2, and 12 of the '522 patent are invalid as anticipated. The Guide was published in March 1992, and is thus prior art to the '522 patent pursuant to 35 U.S.C. § 102(b).

Just as required by the '522 patent's claims, the Guide describes an operating system provided resource that allows applications running under that operating system to produce a window with a number of tabbed pages. (See Guide pp. 9, 10, 15, 16). In particular, the Guide describes a window class available to all applications known as "WC_NOTEBOOK" that "is displayed as a number of pages" when invoked by an application. Moreover, " $[t]$ he top page is visible, and the others are hidden...." (Id. p. 16). The Guide further explains that this notebook window class "simulates a real notebook" and allows a user to "select and display pages by using
a pointing device" like a mouse and clicking on tabs associated with the pages. (Id. at pp. 133, 141.) The below figure from page 139 of the Guide shows an example of the tabbed notebook window class applied to a printer application showing printer settings:


Barnes \& Noble also has substantial non-infringement defenses in connection with asserted claims 1,2 , and 12 of the ' 522 patent. For instance, the following required claim limitation (along with several other limitations) is missing from the accused Nook Color product:

- "each page displays application parameters from the application program" (claims $1,2,12$. All of the asserted claims of the '522 patent require that the pages associated with the tabs display "application parameters." In view of statements and arguments made by Microsoft during prosecution of the '522 patent, this term limits the claims to tabs that display "various application settings for the application program." Microsoft has only pointed to tabs in the Nook Color's browser that display bookmarked web pages, most visited web pages, and visited web page history. None of these tabs, however, display "application settings" for the browser as required by the claims. Further, because this limitation was added during prosecution (see U.S. App. 08/855,400, 10/9/98 Amendment, at 1-4), resulting in the issuance of claims that had
previously been rejected as invalid, Barnes \& Noble will be able to assert that prosecution history estoppel prevents Microsoft alleging infringement under the doctrine of equivalents. Further, the doctrine of equivalents is inapplicable because the differences between the Nook Color and the structure and features required by the claims are not insubstantial.


## III. '551 Patent (Electronic Selection with "Handles")

On its face, the ' 551 patent purports to claim priority back to a November 10, 2000 filing date. Generally, the ' 551 patent relates to another simple and trivial feature that is not only disclosed by numerous prior art references, but is certainly not central to an operating system like Android - selecting or highlighting text or graphics within an electronic document. The patent provides that a user selects a word or phrase, for example, by tapping on a touch screen display or clicking with a mouse. Such a selection may be shown by highlighting the selected word or phrase. The user is presented with "selection handles" on one or both ends of the selected areas. These "selection handles" can be moved by the user to highlight more or less text or graphics. Figures from the ' 551 patent that alternatively show the use of draggable "selection handles" (labeled as 602a and 602b in Fig. 6B and displayed as unlabeled triangles in Fig. 8B to select text and graphics are shown below:


FG. 6B


## A. Invalidity

Among numerous other references, U.S. Patent No. 6,151,426 to Lee et al. ("the '426 Lee patent"), which issued November 21, 2000 and was filed October 1, 1998 (more than two years before the ' 551 patent) and is prior art $\S 102(\mathrm{e})$, and U.S. Patent No. 6,683,631 to Carroll ("the '631 Carroll patent'), which issued January 27, 2004 and was filed December 31, 1998 (one year and nine months before the ' 551 patent) and is also $\S 102(\mathrm{e})$ prior art, provide Barnes \& Noble with a substantial argument that the asserted claims of the '551 patent are invalid as anticipated.

The ' 426 Lee patent discloses software for a scanner that allows a user to select a portion of a document on which to perform an optimized final scan. The ' 426 Lee patent anticipates at least claims $1,2,3,8,9$, and 11 of the ' 551 patent. The ' 426 Lee patent explains that the scanner software allows a user to make an initial selection of a portion of an electronic document displayed on a computer screen by clicking on a desired object. Once an initial selection is made, "[a] selection marker is then automatically displayed...." (Col. 2, lines 61-64.) Then, "[i]f the selection marker automatically generated does not represent the image of interest desired by the user, the user can adjust the size of the region ... by dragging the selection handles appropriately, expanding or contracting the selected area." (Col. 3, lines 7-17.) A figure from the ' 426 Lee patent showing this selection area with draggable selection handles is reproduced below:


FIG. 2

The '631 Carroll patent describes text selection functionality similar to the functionality Microsoft has pointed in Barnes \& Noble's Nook product. Thus, the '551 patent's claims - to the extent they can be properly construed to cover the Nook - are anticipated or rendered obvious by the ' 631 Carroll patent. Just as noted in the ' 551 patent, the ' 631 Carroll patent indicates that in the prior art, "[o]nce a region has been selected, limited manipulation of the selected region is available." (Col. 1, lines 42-43) To solve this problem, the '631 patent allows a user to "extend, retract, and separate selected regions" of text. (Abstract.) This is shown in the below figure from the ' 631 patent:


FIG. 1

The ' 631 Carroll patent also provides that "the selected region 106 is represented as a highlighted region." (Col. 3, lines 20-25.) Further, " $[t]$ he edges of the selected region ... can be a visual representation, such as a marker or an edge to a visually highlighted region." (Col. 3, lines 25-28; see also Fig. 4) To allow modification of the selected region, "[a] positional indicator, which in a preferred embodiment is a cursor 104, is located at the edge of the selected region adjacent to the terminal point." (Col. 3, 11. 30-55) As noted above, the '631 Carroll patent's text selection procedure - which "selects text along lines of a written page as is well known in the art" - is nearly identical to that employed by the Nook. (See Col. 3, lines 35-55.)

Barnes \& Noble also has a substantial argument that asserted claims of the '551 patent are invalid in that they fail to satisfy the requirements of 35 U.S.C. § 112. The '551 patent's specification only describes the desired functionality, but does not provide code or other technical detail regarding how one of skill in the art would be able to accomplish the claimed selection methods.

## B. Non-Infringement

Barnes \& Noble has substantial non-infringement arguments in connection with all the asserted claims of the '551 patent. For instance, among other limitations, at least the following required claim limitations are missing from the accused Nook and Nook Color products:

- "a plurality of selection handles" (claim 1) and "two graphical selection handles" (claim 9). These limitations arguably require two-dimensional graphical elements on a screen that are of sufficient size and shape to allow them to be physically touched and dragged by a user. The "selection handles" in the Nook and Nook Color pointed to by Microsoft (the blue lines at the end of highlighting in the Nook Color and brackets in the Nook) are too small to
allow for such interaction. Barnes \& Noble will also be able to assert that this limitation is not met under the doctrine of equivalents because graphical lines that are too small and not designed to be "selected" by a user do not perform the substantially same function, in substantially the same way, to achieve substantially the same result as the claims require.
- "receiving an input from a user associated with said selection handles for detecting a movement of one of said selection handles from on said display; and determining whether said movement is associated with an upstream indication or a downstream indication" (claim 1). The Nook Color fails to satisfy this limitation because it allows a user to touch areas on the screen remote from the alleged "selection handles" to increase or decrease the amount of highlighting. A user is not required to touch directly on the blue lines at the end of a highlighted portion of text. Moreover, these blue lines do not appear to be particularly or differentially responsive to touch in comparison to other areas on the screen as the ' 551 patent's claims require. The Nook also fails to satisfy this limitation. While the brackets surrounding text to be selected are moveable, this movement is accomplished using a separate color LCD touch screen. Thus, the Nook does not "detect[] a movement of one of said selection handles from on said display." Further, the bulk of these limitations were added during prosecution. (See U.S. App. 09/768,171, 11/14/03 Amendment, at 3; 5/5/04 Amendment After Final, at 2.) As a result, among other reasons, Barnes $\&$ Noble will be able to assert that prosecution history estoppel prevents Microsoft alleging infringement under the doctrine of equivalents.
- "receiving an input from a user for movement of at least one of said graphical selection handles" (claim 9). The Nook Color does not satisfy this limitation for at least the same reasons as described in the preceding paragraph.
- "movement of the least one graphic selection handle ... while maintaining a position of the other said graphical selection handle" and "exchanging handles when a first of said selection handles is relocated to an opposite end of said selection area" (claim 10). The Nook Color fails to satisfy this limitation because it does not "maintain[] a position of the other said graphical selection handle" when one "handle[] is relocated to an opposite end of said selection area." Instead, when one of the "handles" pointed to by Microsoft in its claim chart is relocated to an opposite end of a selection area, the other "handle" does not maintain its position, but flips its location with respect to whatever word is selected (i.e., moves to the end of the word if it was at the beginning of the word and vice versa). Similarly, the Nook fails to satisfy this limitation because it terminates the selection process when a user attempts to "exchang[e] handles." Barnes \& Noble will also be able to assert that this limitation is not satisfied under the doctrine of equivalents (because, among other things, reading claim 10 on a device that moves rather than "maintain[s] a position of ... said graphical selection handle" would vitiate this limitation from the claim).

In addition, for each of the limitations outlined above, the doctrine of equivalents is inapplicable for at least the further reason that the differences between the Nook and Nook Color and the structure and features required by the claims are not insubstantial.

## IV. '233 Patent (Annotation of Electronic Documents)

The '233 patent was filed December 7, 1999. Like the other Microsoft patents, the '233 patent relates only to one small feature that has long been present in the prior art and is not central to Android or any other operating system. More specifically, the patent generally relates to a method for capturing annotations made in an electronic document (like an electronic book),
without changing the electronic document itself. As described by the patent, a user selects an object or word in the book and enters an annotation in connection with that word or object. The annotation and its location are then stored separately from the electronic document. The user is able to review all annotations from the electronic book in a separate pop-up window and is also able to select each of the annotations from this window. Upon selection of an annotation, the user is navigated to the page in the electronic document where the annotation was originally placed. The separate pop-up window is shown in the below figure from the ' 233 patent:


While several other prior art references also apply to the '233 patent's claims, a document entitled Re:Mark $®$ Markup and Review for Adobe $®$ Acrobat $®$ Software User's Guide ("the Re:Mark Guide") anticipates claims 21 and 22 of the ' 522 patent. The Re:Mark Guide was published July 10 , 1997. As a result, it is prior art to the '233 patent pursuant to § 102(b).

The Re:Mark Guide describes an annotation plug-in designed to integrate with Adobe
3.0. (Re: Mark Guide at p. 10) The Guide explains that Re:Mark allows a user to apply numerous different annotations to an otherwise non-modifiable PDF document, including "text annotations," "pop-up comments," "highlighting," "text strike-out," "text underlining,"
"drawing," including both free form drawings and shapes, "rubber stamps," "file attachments," and "sound comments." (Id. at pp. 20, 33, 41, 48, 54, 60, 68, 75, 80, 89). This is shown in the exemplary figure below:


Re:Mark also includes an "Annotation Manager" that "shows you all the annotations in your document.... Double clicking on an individual annotation takes you to the page containing the annotation." (Id. at p. 97). The annotation manager is shown below:


Like the '551 patent, the '233 patent provides little technical detail regarding how to
carry out the claimed subject matter. As a result, it will be susceptible to various other invalidity defenses, including a challenge under § 112.

## B. Non-Infringement

Barnes \& Noble also has multiple substantial non-infringement arguments in connection with all the asserted claims of the '233 patent. For instance, at least the following required claim limitation is missing from the accused Nook Color products:

- "providing a second display portion on said display configured for navigating to the previously selected object based on said file position, when said annotation is displayed and subsequently selected" (claims 21, 22). While the Nook Color includes a pop-up window entitled "Notes \& Highlights," this window displays only selected text, not the annotations associated with that text. For instance, even though the Nook Color allows a user to apply three different colors of highlighting and append notes to selected text, the "Notes \& Highlights" does not show the colored highlighting or the appended notes. Thus, the Nook Color does not "display" previously made "annotations" for "subsequent[] select[ion]" as required by the claims. Barnes \& Noble will also be able to assert that this limitation is not met under the doctrine of equivalents. For instance, reading claims 21 and 22 on a device that does not "display" previously made "annotations" in a "second display portion" would vitiate this limitation from the claims. Further, a window that displays selected text rather than annotations does not perform the substantially same function, in substantially the same way, to achieve substantially the same result as the claims require.


## V. '780 Patent (Web Browser Loading Status Icons)

The ' 780 patent was not filed until May 6, 1997, long after the first web browser came to market. In addition to being late to the game, the patent is directed to a very simple and obvious feature - a temporary graphic element or status icon that is displayed to indicate that a hypermedia browser (such as a web browser) is loading content. When a browser is intended for use with a portable computer system with a limited display size, the '780 patent notes that it is desirable to maximize the browser's content display area (the portion of the browser that actually displays a website, not the menus, toolbars, or buttons). Thus, the patent makes a trivial design choice and provides that the graphic element or loading status icon is to be temporarily displayed in the content display area of the browser as opposed to a separate space such as the browser's menu bar, tool bar, or a separate status bar. The ' 780 patent's graphic element / loading status icon is shown in the below figure from the patent (labeled as item 64):


7ig. 3

## A. Invalidity

All the asserted claims of the ' 780 patent are obvious in view of a number of prior art references. While providing a complete listing of these references is beyond the scope of this letter, examples include the following: U.S. Patent No. 5,301,348 to Jaaskelainen ("the '348 Jaaskelainen patent"), which issued April 5, 1995 and is § 102(b) prior art; PenPoint ${ }^{T M} U I$

Design Guidelines ("the PenPoint Guidelines"), which published February 15, 1991, and is also § 102(b) prior art; U.S. Patent No. 6,584,498 to Nguyen ("the '498 Nguyen patent"), which issued June 24, 2003 and was filed September 13, 1996 (approximately eight months prior to the ' 780 patent) and is prior art under 35 U.S.C. §102(e); and U.S. Patent No. 5,845,282 to Alley et al. ("the '282 Alley patent"), which issued December 1, 1998 and 'was filed August 7, 1995 (a year and a half prior to the ' 780 patent) and is also § 102(e) prior art.

It cannot reasonably be disputed that web browsers included loading status indicators when the ' 780 patent was filed. The ' 780 patent in fact concedes that point. (See Col. 2, lines 29.) While these browsers' loading status indicators were often in a separate status bar, each of the prior art references listed above disclose loading status icons that temporarily appear over a device's content viewing area. Either alone or together, the references make clear that the concept of moving a loading status icon from a web browser's status bar to a location over the content viewing area (the sole feature that distinguishes the ' 780 patent from the prior art) was known, contemplated, and obvious to one of skill in the art. The following paragraphs summarize the salient disclosures in each of these prior art references:

The '348 Jaaskelainen patent discloses a generic loading status icon or "dynamic progress marker" that "dynamically changes to mark the progress of a task." (Col. 2, lines 14-16.) As explained in the reference's specification and shown in the below figure, this loading status icon is displayed in the "lower right hand corner of display $1 \ldots$, and remains in the same location for the duration of the task" (Col. 4, lines 6-13):


The '348 Jaaskelainen patent also makes clear that "icon $20 \ldots$ disappear[s] from display 12 " when the task is complete. (Col. 4, lines 28-34.)

The PenPoint Guidelines also disclose a generic loading status icon - referred to as a "busy clock" - that is utilized by a stylus or pen based operating system. (See PenPoint Guidelines at p. 64.). This loading status icon is shown below:

## $\boxed{\square} \square \square \square \square \square \square$

Figure 44: Frames of Animated Busy Clock

The PenPoint Guidelines provide that the busy clock should appear over the content viewing area, i.e. "at or near the point that the user invoked the operation with the pen...." (Id.) This is shown below:


Figure 45: Busy Clock at Location of Gesture
Moreover, the Guidelines recognize that the loading icon can be interchangeably placed in a window's title or status bar. (See id. at p. 65.)

The ' 498 Nguyen patent discloses a process for preloading secondary webpages linked to by a primary web page. While this preloading is occurring, a variety of animated loading status
icons can be displayed at different locations in a web browser's content viewing area. For instance, the ' 498 Nguyen patent explains that the loading status icon can be a small dot next to a hyperlink that progressively changes from orange to green as loading progresses, a "textual or graphical indicator, positioned at the margin of the primary page 140 (such as in the margin for a window used for presentation of the visual elements of the primary page 140), indicating the amount of the 'in progress' preloading state," or progressively changing underlining. (Col. 4, line 65 - Col. 5, line 57.) These loading status icons, which are "superposed on the primary page" $140(\mathrm{Col} .5,11.6-16)$ are shown in the below figure and are all labeled as item 153:


FIG. 1
The '282 Alley patent generally relates to a method and apparatus for "browsing and selecting files stored on a remote desktop computer from a pen-based computer..." (i.e. an Apple Newton handheld device). (Col. 2, lines 20-25.) While the pen-based computer does include a small separate "status bar" (see, e.g., Col. 8, lines 35-40), when a "user has invoked a connection between the Newton ... and a remote desktop computer..., [t]he status of the connection is shown in a second dialog box 304 in which the progress of the connection establishment is indicated by a 'barber pole' 306. Dialog box 304 includes a 'stop' button 308 that can be used to
terminate the connection prior to its establishment" (Col. 13, lines 19-29). Thus, as shown in the figure below, the '282 Alley patent discloses a temporary status indicator that appears over a device's content viewing area when a network connection is being made:


Figure 10A


Figure 10B

## B. Non-Infringement

By way of example only, at least the following required claim limitations are missing from the accused Nook product:

- "a content viewing area for viewing content ... configured to display a temporary graphic element over the content viewing area during times when the browser is loading content" (claim 1); "a temporary graphic element over the content viewing area during times when the browser is loading visible content" (claim 12); "a temporary graphic element over the content viewing area during the loading step" (claim 19); "a 'load status' graphic element over the content viewing area" (claim 32, 36); and "a 'load status' graphic element over the content view area" (claim 40). The "temporary graphic element" pointed to by Microsoft in the Nook browser is displayed in the lower color LCD screen. This, however, is not the Nook's "content viewing
area," rather it is the device's user interface. "Content" is displayed and intended to be viewed in the upper eInk screen. Further, the doctrine of equivalents does not apply to this limitation because, among other reasons, the lower color LCD screen does not perform the substantially same function, in substantially the same way, to achieve substantially the same result the claimed "content viewing area."
- "temporary graphic element ... positioned over the content viewing area to obstruct only part of the content in the content viewing area" (claim 1); a "temporary graphic element ... positioned only over a portion of the content viewing area and obstructs only part of the visible content in the content viewing area" (claim 12); a "temporary graphic element over the content viewing area during the loading step, wherein the temporary graphic element obstructs only part of the content in the content viewing area" (claim 19); "a 'load status' graphic element over the content viewing area so that the graphic element obstructs only part of the content in such content viewing area" (claims 32,36 ); and "a 'load status' graphic element over the content view area obstructing part of the content displayed in the content viewing area" (claim 40). All of these claim limitations require that the "temporary graphic element" obstruct content. In the Nook browser, however, any content located under the "temporary graphic element" pointed to by Microsoft in the lower color LCD screen is also displayed in the upper eInk screen. As a result, this content is not "obstructed" as the claims require. Further, because the limitations requiring that content be "obstructed" were added during prosecution (see U.S. App. 08/851,877, 9/23/99 Amendment, at 1-4), Barnes \& Noble will be able to assert, among other things, that prosecution history estoppel prevents Microsoft alleging infringement under the doctrine of equivalents. Barnes \& Noble will also be able to argue that the doctrine of
equivalents is inapplicable because reading the ' 780 patent's claims on a device with a loading status icon that does not "obstruct[]" content would vitiate this limitation from the claims. The differences between the Nook and the structure and features required by the claims are not insubstantial.


## VI. Other Patents Identified by Microsoft Prior to Filing Its Suits

As noted above, in attempt to support its claim of dominance over Android, in addition to the ' 780 patent described above (the only overlapping patent that was asserted in the litigations as well as during discussions prior to the filing of the suits), Microsoft also identified five other patents to Barnes \& Noble that are not at issue in the International Trade Commission and District Court actions. These include the '517, '913, '352, '536, and '853 patents. Like the patents asserted by Microsoft in the litigations, these other patents are also trivial and do not warrant dominance over an entire operating system. Indeed, the fact that Microsoft did not assert five of the six patents identified prior to the filings of its suits points to its own belief that the patents are trivial and do not cover an entire operating system.

As Barnes \& Noble highlighted in its Response it filed with the International Trade Commission, the ' 517 and ' 352 patents deal with nothing more than the compatibility between file names employed by operating systems used and sold today, and more primitive file names employed by old, unused, and outmoded operating systems. This is of no importance to either the Nook or Nook Color, which are much more modern products. Neither product infringes any valid, enforceable claims of the ' 517 or ' 352 patent.

The ' 536 and ' 853 patents relate to another minor feature, namely simulating mouse inputs using non-mouse devices. The ' 853 patent misrepresented the state of the art at the time
the patent was filed by stating that "a need exists for permitting a user to perform all operations of a mouse-type device using a stylus." This, however, is demonstrably incorrect. The '536 and '853 patents were filed in November 2000. Long before that time, numerous systems had been developed that enabled computer users to simulate mouse behavior with touch input devices. For example, U.S. Patent No. 5,327,161 to Logan et al., entitled "System and Method for Emulating a Mouse Input Device with a Touchpad Input Device" (the "'161 patent"), was issued in 1994, years before the '536 and ' 853 patents were even filed. The ' 161 patent discloses a touchpad input device or touch-sensitive device that "can be used to replace the mouse cursor locator/input device in mouse-driven personal computers." (Col. 1, 11. 18-20.) The touchpad in the ' 161 patent performs functions of a mouse. Further evincing the lack of inventiveness of the subject matter set forth in the ' 536 and ' 853 patents, the ' 161 patent noted that touchpad technology had been disclosed in patents that issued as early as 1978. (See Col. 3, 11. 15-22.) Touchpad technology did not disappear or otherwise fade into the background in the decade between the filing of the ' 161 patent and Microsoft's own ' 536 and ' 853 patents. A January 14, 1999 New York Times article entitled "Treading on the Mouse's Heels: The Oh-So-Subtle Touch Pad" describes "newer models of touch pads ... that ... can be trained to recognize handwritten commands." Moreover, the described touchpad allows one to "slide the finger" across the touchpad "[f]or a large cursor movement," and, just like the '536 patent, the touchpad performs different actions depending on whether a user taps or holds his or her finger on the touchpad surface. For instance, " $[a]$ double tap equals a double click of the mouse" while the action to "tap once, then lower the finger and leave it down" equals a "highlight and drag." Further, the ' 536 and ' 853 patents relate to a concept that, while long present in the prior art, is
lacking in the Nook and Nook Color devices, which were never designed for use with a mouse in this first instance, never simulate such an input, and thus cannot infringe any valid, enforceable claims of these patents.

The '913 patent relates to storing input/output access factors in a shared data structure, and which clearly could not preclude the use of an entire operating system. The '913 patent specification is deficient with respect to a written description of the alleged invention and fails to provide sufficient detail for a person of skill in the art to make the subject matter of the claims. This deficiency renders the patent invalid, and in any event the claims do not cover the Nook and Nook Color devices to the extent the subject matter can be understood in light of the deficiencies. Tellingly, Microsoft was never able to fully explain how anything in the Nook and Nook Color related in any manner to the concepts set forth in the ' 913 patent. Neither product infringes the ' 913 patent.

The above overview provides only a sampling of the triviality of the ten patents either mentioned in discussions by Microsoft prior to the filing of its lawsuits or asserted against Barnes \& Noble in the litigations. This letter also has only provided examples of Barnes \& Noble's many invalidity and non-infringement defenses to the patents asserted by Microsoft. All of these details throughout this letter point to the triviality of Microsoft's patents, with respect to both patentability and commercial applicability, particularly as these patents relate to the Android operating system.

Please let me know if you would like further details in this regard.


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