

[0064] Referring to FIG. 8A and FIG. 8B, the flexible display device 100 may activate touch sensors 140 and may display contents 177 (e.g. a page of a book) stored in the storage unit 170 on the display unit 130 according to the user's request. When the page is displayed on the display unit 130, the flexible display device 100 may activate a flexible sensor 150 according to a preset condition.

[0065] The flexible display device 100 can detect touch events on the left side A and the lower right side B of the display unit 130, and, in general, on any side of the display unit 130. The device 100 can display contents on the lower right side B of the display unit 130. A touch event and a bend event may be detected on the contents and/or on the lower right side B. That is, the device 100 can overlap pages at their corners and margins to form the block width, as noted above. As shown in FIG. 8A, the device 100 may display the lower fore edge and bottom edge of the pages on the display unit 130, while the pages obliquely overlap.

[0066] When the touch event detected at the bottom edge B moves towards a corner of the display unit 130, the flexible display device 100 turns the pages (e.g., flips to the next page). It can be appreciated that other suitable methods of turning pages may be used and that turning pages is not limited to moving the touch event towards the right side or the lower side of the display unit 130.

[0067] Referring to FIG. 9, as described hereinabove, the flexible display device 100 may activate touch sensors and may display contents stored in the storage unit 170 on the display unit 130 according to a user's request. When a page retrieved from the storage unit 170 is displayed on the display unit 130, the flexible display device 100 may activate a flexible sensor 150 according to a preset condition.

[0068] The controller 160 of the flexible display device 100 may detect, via the flexible sensor 150, a bend event if the right side of the display unit 130 is bent at a certain angle. The bend event may be caused by a physical force that the user applies to the right side. When a bend event occurs as shown in a state 91, the controller 160 can determine that the bend event has occurred asymmetrically at the right side with respect to the central axis. Accordingly, the controller 160 may control the display unit 130 to display a portion of other pages on the right side as shown in a state 93. If a page has a bookmark, the controller 160 can display the bookmark on a certain area. More specifically, if an asymmetrical bend event has been detected, the controller 160 may identify file information regarding contents 177 stored in the storage unit 170, and may check whether the user has already set a book mark in the contents. If the controller 160 determines that a page is set as a bookmark, the display unit 130 may show a portion of the pages according to the detection of the asymmetrical bend event, and may simultaneously display the page having the bookmark so that the page with the bookmark can be distinguished from other pages. For example, as shown in a state 93, the controller 160 may control the display unit 130 to display a page having a bookmark in such a way that the output area of the page is greater than an output area of other pages or a portion of the output area of the page has a bookmark symbol M.

[0069] If a page has a bookmark, the controller 160, as shown in a state 95, can control a page turning function for the page with the bookmark differing from that of other pages. For example, if a touch event is moved and subsequently released from pages within a certain width of the block width where a portion of pages are displayed, the display unit 130

may display an image on pages released by the touch event from right to left, as shown in FIG. 9, and may simultaneously display another pages retaining the touch event on the display unit 130. The display unit 130 may display images on pages for a certain time interval corresponding to the time the touch event is released from each page. The controller 160 may control the display unit 130 to display a page having a bookmark for a longer time interval than pages not having a bookmark. Therefore, the flexible display device 100 can turn the pages from right to left in a certain time interval, and in particular, can output, on the display unit 130, a page having a bookmark for longer than other pages not having a bookmark.

[0070] In some cases, if a touch event is moved on a page, the page may not be turned and may continue to be displayed on the display unit 130. For example, while the page turning function is performed, pages can be turned over at a certain time interval. Although a touch event may be released from a page, if a touch event re-designates (e.g., reselects by detection of a touch event) the page that is being displayed or being turned over on the display unit 130, the controller 160 can stop turning the page and may continue displaying the page. If a touch event, such as a drag touch or a flick, is detected, the display unit 130 may re-display the designated page on the entire display unit 130 or may remove a corresponding page from the display unit 130.

[0071] Although the page turning function is implemented in such away that a touch event is released from a corresponding page and an image corresponding to the page is moved at a certain time interval, exemplary embodiments of the invention are not limited thereto. For example, the controller 160 may turn a page immediately after a touch event is released from the page.

[0072] Referring to FIG. 10A, in state 101a, the display unit 130 of the flexible display device 100 is not bent with respect to the central axis of the flexible display device 100. In state 103a, the display unit 130 is bent and touch events may occur at one or both sides A and B. A content 177 stored in the storage unit 170 may be output on the display unit 130, according to a user's request. The content 177 can be output according to touch events that can be detected at one or both sides of the display unit 130. If a touch event is detected, the flexible display device 100 may activate a flexible sensor 150. In some cases, the flexible display device 100 can also activate the flexible sensor 150 when activating the touch sensor 140.

[0073] Referring to FIG. 10B, in state 101b, the right side of the display unit 130 is more bent than the left side of the display unit 130 with respect to the center axis. When the display unit 130 is bent asymmetrically, the flexible display device 100 may perform a control operation where at least some contents can be displayed on the side that is more bent, as shown in a state 103b. For example, the flexible display device 100 may receive a bend signal from flexible sensors 150 as the display unit 130 is bent and may compare information regarding a bend angle of the right side with, for example, the bend angle of the left side. The flexible display device 100 may determine whether the bend angle of the right side is greater than the bend angle of the left side. If the flexible display device 100 determines that the bend angle of the right side is greater, the flexible display device 100 can display other contents on the right side of the display unit 130 with a certain interval between the contents. If a touch event A is retained over a certain time period, the controller 160