

the flexible display **151** is bent to the second direction during the image data is displayed, the controller **180** increases contrast of the image data.

[0192] Referring to FIG. **22(d)**, if a lower part of the flexible display **151** is bent to the first direction during the image data is displayed, the controller **180** decreases brightness of the image data. Referring to FIG. **22(e)**, if the lower part of the flexible display **151** is bent to the second direction during the image data is displayed, the controller **180** increases brightness of the image data. For the bent part is detected, the controller **180** changes contrast or brightness of the image data continuously according to the detected bent direction.

[0193] Referring to FIG. **23(a)**, if received message menu is executed, a message list is displayed on a display region of the flexible display **151**. A received message, a mail, phone number related to the received message, sub tab to confirm a schedule is displayed, and a received message list is displayed with phone number and a part of the received message.

[0194] Referring to FIG. **23(b)**, if a lower part of the flexible display **151** is bent to the first direction during the received message list is displayed; referring to FIG. **23(c)**, the controller **180** deletes a part of the received message list which is displayed on the detected bent area.

[0195] If a part of the flexible display **151** is bent to the first direction during the received message list is displayed, the controller **180** deletes a data which is displayed on the unseen region on the display region according to the bent part of the display region and the detected bent area. The controller **180** can copy a data displayed on the bent part of the display region and paste the copied data.

[0196] Referring to FIG. **24**, when mobile terminal is idle status, an idle screen is displayed on a display region of the flexible display **151**. Image, clock shape, text, letter color, and background color which are included on the idle screen can be changed by user's setting, and can be displayed as a theme.

[0197] If a part of the flexible display **151** is bent during the idle screen is displayed, the controller **180** changes the idle screen according to the bent part of the display region.

[0198] If a theme is displayed, the controller **180** displays the next theme. If a part of the flexible display **151** is bent repeatedly, the controller **180** displays the next theme in regular sequence. As a theme of the idle screen is changed, image, clock shape, text, letter color, and background color which are included on the idle screen are changed.

[0199] If a theme is not displayed, the controller **180** changes image data of the idle screen in order of stored image the controller **180** can change a type of displayed language.

[0200] Referring to FIG. **25**, if a part of the flexible display **151** is bent during a music play menu or a video is executed, the controller **151** outputs sound or haptic effect corresponding to an image on the flexible display.

[0201] If pressure which is inputted is stronger than sensing signal from the sensing unit **140** or if a detected bent area is narrow, the controller **151** may output sound or haptic effect.

[0202] For example, if user strikes the flexible display **151** or if user inputs strong pressure with finger to the flexible display **151**, the sensing unit **140** may generate a sensing signal according to degree of strength of the sensing signal or range of the sensing signal.

[0203] The output unit **150** outputs sound such as a drum audio, a bass drum audio and outputs a haptic effect.

[0204] If an upper part or a lower part of the flexible display **151** is bent, a screen which is displayed on the flexible display **151** can be displayed on display region except the detected

bent region. For example, the idle screen can be moved and can be displayed on display region except the detected bent region.

[0205] The mobile terminal according to the present invention and the controlling method of the mobile terminal according to the present invention are not restricted to the exemplary embodiments set forth herein. Therefore, variations and combinations of the exemplary embodiments set forth herein may fall within the scope of the present invention.

[0206] The present invention can be realized as code that can be read by a processor (such as a mobile station modem (MSM)) included in a mobile terminal and that can be written on a computer-readable recording medium. The computer-readable recording medium may be any type of recording device in which data is stored in a computer-readable manner. Examples of the computer-readable recording medium include a ROM, a RAM, a CD-ROM, a magnetic tape, a floppy disc, an optical data storage, and a carrier wave (e.g., data transmission through the Internet). The computer-readable recording medium can be distributed over a plurality of computer systems connected to a network so that computer-readable code is written thereto and executed therefrom in a decentralized manner. Functional programs, code, and code segments needed for realizing the present invention can be easily construed by one of ordinary skill in the art.

[0207] While the present invention has been particularly shown and described with reference to exemplary embodiments thereof, it will be understood by those of ordinary skill in the art that various changes in form and details may be made therein without departing from the spirit and scope of the present invention as defined by the following claims.

What is claimed is:

1. A method of controlling a mobile terminal equipped with a flexible display, the method comprising:
 - detecting that a part of display region of the flexible display is bent; and
 - changing a screen displayed on the display region according to a detected bend characteristic.
2. The method of claim 1, wherein the step of changing comprises:
 - changing at least one of a moving direction of content on the screen, a scrolling direction of content on the screen, a type of content on the screen and a playing direction of content on the screen according to the detected bend characteristic.
3. The method of claim 1, wherein the step of changing comprises:
 - increasing or decreasing at least one of an audio volume, an audio or video play speed, a text scrolling speed, and an image shifting speed of the screen according to the detected bend characteristic.
4. The method of claim 1, wherein the step of changing comprises:
 - deleting content displayed on the bent part of the display region when the bend is detected.
5. The method of claim 1, further comprising:
 - copying the deleted content when the bend is detected.
6. The method of claim 1, further comprising:
 - detecting that the bent part of display region is unbent; and
 - expanding content from a non-bent part of the display region to cover at least a part of the bent part of the display region.
7. The method of claim 1, wherein the step of changing comprises: