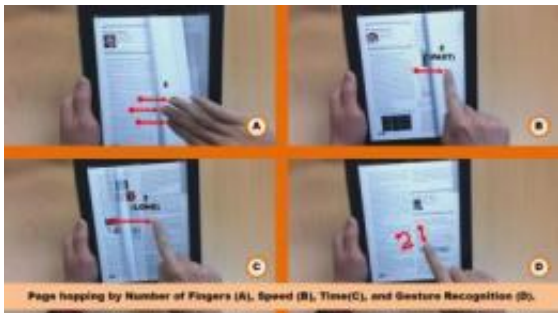


New smart e-book system more convenient than paper-based books

10 January 2012



The new technology allows turning over pages by fingers and speed, time, and gesture recognition. Credit: KAIST

Korea Advanced Institute of Science and Technology (KAIST) announced today that its research team headed by Professor Howon Lee from the IT Convergence Research Institute has developed a technology that will make reading on smartphones and tablet PCs easier than now.

The [technology](#), called the "Smart E-book System," allows users of smartphones and tablet PCs to effortlessly flip through the pages of an e-book or cross-reference its contents, just as they would with paper-based books and magazines.

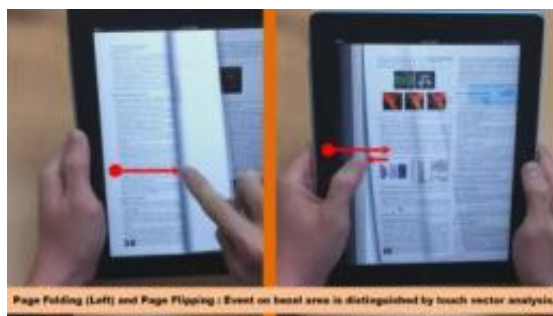
Unlike conventional displays and user interface technologies, where users' finger movements are locked within the screen of display, the Smart E-book System recognizes finger touches made beyond the screen.



Finger bookmarking enables readers to remember and quickly return to pages of interest. Credit: KAIST

In other words, this algorithm-based conversion technology detects "touch and entry events" on the bezel ([circumference](#)) of smartphones and tablet PCs and connects them with the "events" occurring within the screen, thereby preserving compatibility with traditional e-book interfaces while providing users with new functions. Therefore, users can readily flip the pages of an e-book from the start-up screen without entering any function keys or touching the screen.

Skimming through the pages of a book, a feature that was previously unavailable with e-books, is also possible through 3D rendering of the contents on the pages being flipped. A bookmark function allows users to conveniently go back and forth between pages of interest. In addition, the system has a "multi-touch" function as well as a smart capability of recognizing dragging time, finger pressure, and finger gestures.



The new technology allows for page folding and flipping. Credit: KAIST

Professor Howon Lee said, "I hope that our technology will accelerate the wider use of [e-books](#) and contribute to Korea's endeavors to lead the development of [software application](#) technology for mobile devices."

Professor Lee and his research team have filed 11 patents for the Smart E-book System in Korea and abroad.

Provided by The Korea Advanced Institute of Science and Technology

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