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THIS RING LETS BLIND PEOPLE READ NON-BRAILLE BOOKS

PUBLISHING & MEDIA

FingerReader provides visually impaired readers with a wearable ring that can scan written text and read it out loud.

One of the problems with Braille is that it's typically printed in specialist books aside from the copies created for sighted people, meaning that those with sight difficulties can't borrow their friends' books and need to seek out the bookstores and libraries that cater for them. In the past, we've seen projects such as Thailand's Mr. Light and Mr. Dark — which uses special typography to enable the blind and non-blind to read the same book. Now the FingerReader initiative from MIT provides visually impaired readers with a wearable ring that can scan written text and read it out loud.

Created by MIT Media Lab's Fluid Interfaces Group, the small device features an on-board camera and can be worn around the index finger. As readers trace lines of text with their finger, the camera uses complex algorithms to determine the words and lines on the page and processes them through a text-to-speech engine to recite each word out loud to the reader. If the reader's finger begins to veer away from the line they're on, the ring delivers haptic feedback to guide them in the right direction. Similarly, a small vibration lets them know they've reached the end of a line. When moving to a new line, the device compares the swords it's already processed to make sure it doesn't repeat a piece of text.

The team have already created a working prototype of the FingerReader, but as the video below demonstrates, it's still in the early stages of development:

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The researchers hope that they can bring the device to market, and if they're successful, the device could render Braille books redundant. Could similar technology be used to help those with poor sight to better navigate new devices such as smartphones and tablets?

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23rd September 2014
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