

# HEALTH (/HEALTH/) Conditions & Treatments



## High Tech Innovations for Low Vision

The latest apps, electronic readers and other tools to help people who can't see well

by Andrea Barbalich, **AARP** (<https://www.aarp.org>), January 7, 2019 | Comments: 0



COURTESY ENHANCED VISION, A VISPERO BRAND

Video magnifiers, which can be handheld or stand-mounted, help enhance text size.

Assistance for people with vision impairment has come a long way in recent years. Before tech transformed health care, the main option for vision assistance was magnifying lenses. Today's tools include not only better magnification devices, but also apps and other products that use

audio or tactile, rather than visual, feedback.

“These kinds of things put the zest and joy back in life for people who think they’ve had to give up some things,” says Neva Fairchild, an independent living specialist with the American Foundation for the Blind who is herself visually impaired. Fairchild was able to read a Valentine's Day card from her daughter for the first time this year using an app called Seeing AI (more on that below).

Among the latest and most interesting innovations:

## Improved electronic devices

Many easily accessible and fairly inexpensive electronic devices, such as iPads and Kindles, have integrated features that help those with vision impairment, such as font enlargement — a huge help even for people who develop the common presbyopia that comes with aging (</health/conditions-treatments/info-2018/-older-adults-focus-vision.html>). Dictation technology for smartphones is improving too, says Fairchild. “I can do a lot with my iPhone without ever using my hands to interface with the screen.”



COURTESY ENHANCED VISION, A VISPERO BRAND

The Merlin elite is a desktop video magnifier for people with low vision.

## Video magnifiers

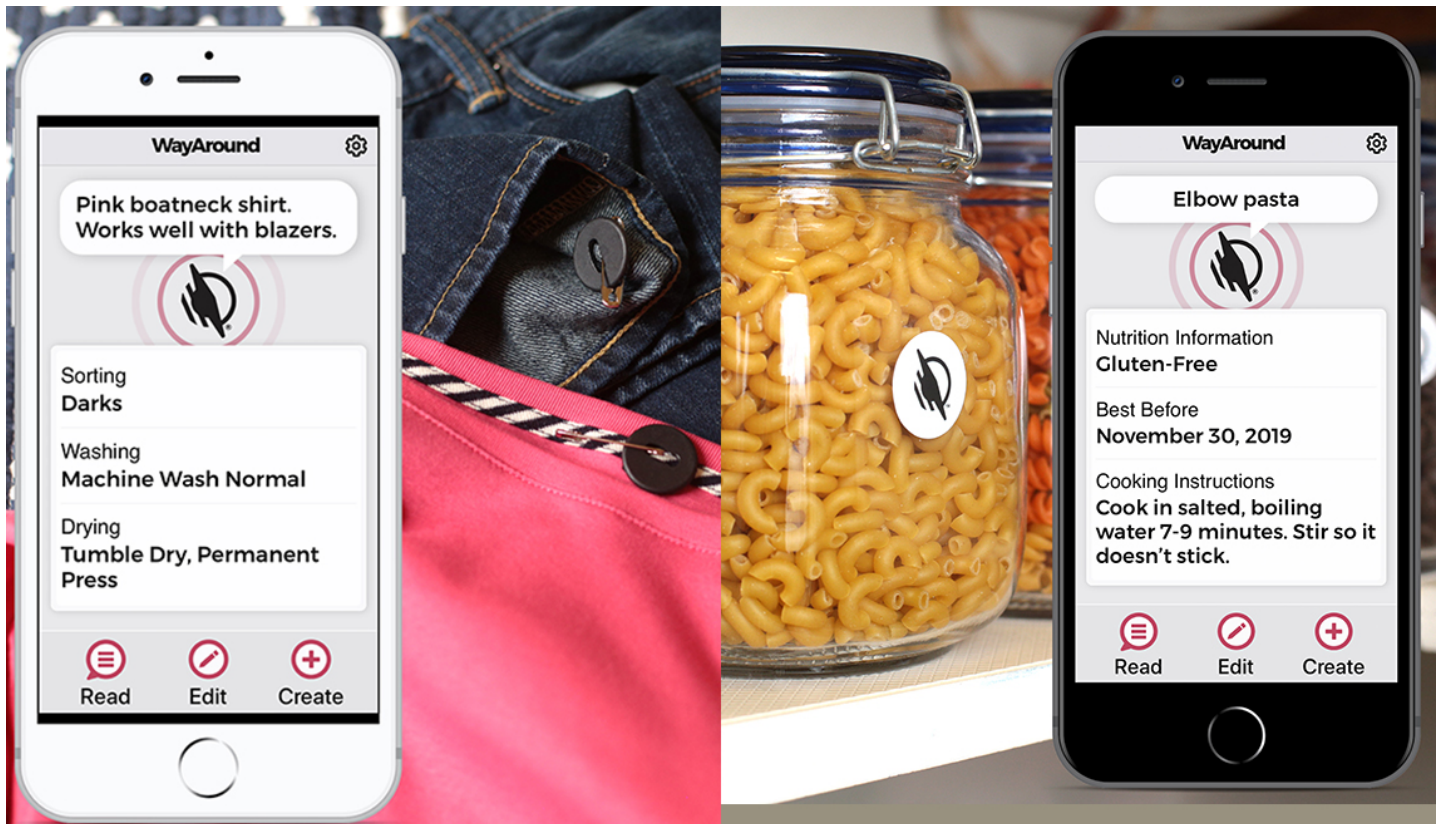
These devices allow you to place printed materials on a scanner and see them, magnified, on a screen. “They can be handheld, making them easy to use for spotting, and portable, or mounted on a stand, which helps when reading for a longer period of time,” says Ming Wang, an



ophthalmologist and founder of Wang Vision Cataract and LASIK Center in Nashville, Tenn. The stand-mounted magnifiers often have a text-to-speech function, which reads the text aloud (a capability known as optical character recognition or OCR). Some can also convert black text on a white background to white text on black, which is easier for some people to read. Popular models include the Pebble HD (which is handheld) and the Merlin elite (used on a desktop).

## Victor Reader Stream

This lightweight, handheld device plays DAISY digital talking books, EPUB e-books, MP3 and MP4 files, and other media formats. “It’s like a library in your pocket, about the size of a deck of cards,” says Fairchild. Victor Reader Stream, which is made by Humanware, also provides access to more than 36,000 web radio stations and has built-in Wi-Fi capability. “Say you’re at the hair salon listening to a book and you get to the end,” she adds. “Now you can wirelessly download something else in a matter of minutes.”



COURTESY, WAYAROUND

Smartphone apps such as WayAround allow users to place hear the instructions, such as how to wash a piece of clothing or cook an item of food, read aloud.

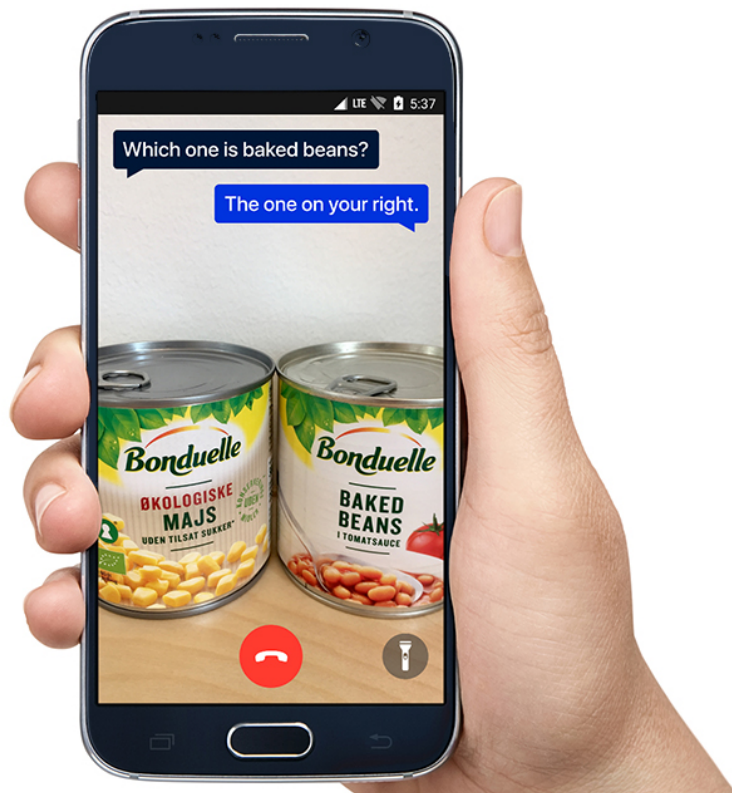
## WayAround

Created to help make everyday tasks easier, this free app features a tag-and-scan system that allows users to place their smartphone on any type of tag — from a nutrition label on a can of soup to washing instructions on a blouse — and hear the instructions read aloud. You can also create tags (about the size of a postage stamp) to place on objects around the house. “I can enter whatever information I want or need into the tag, such as ‘This is a red shirt and matches my

khaki, gray and navy slacks,’ or ‘For toasting a bagel, turn the dial on the toaster all the way to the right,’” says Fairchild. Coming soon: tags in public places that allow you to, say, get the layout of a public restroom so you can navigate it more easily.

## Seeing AI

This free app reads short pieces of text out loud. “You hover the device above an envelope, for example, and you can see whether it’s for you or your spouse or a neighbor,” says Fairchild. “It’s not perfect, but it’s closer than what I can get with my eyes.” Another use: The app can read handwriting. “The post office has been using this technology for years to scan and direct mail quickly, and now it’s available to the public,” adds Fairfield.



COURTESY BE MY EYES

The Be My Eyes app connects users to a sighted volunteer who can help answer basic questions.

## Be My Eyes

When you need to find the corn muffin mix in the pantry or determine whether your polo shirt is white or navy, you can use this free app to connect to a sighted volunteer. “That person uses your phone camera or a photo you send and tells you what they see,” says Fairfield. “The person will help you for a short amount of time.”

## Aira

If you need help for a longer period (up to 30 minutes) or from someone who has more knowledge than a volunteer, you can purchase a subscription to Aira, which connects you to a





COURTESY ARIA

Aria is a paid service that connects the user to a trained agent for visual assistance.

trained agent. Say you rode the bus and got off at a stop that doesn't feel right. "You can call Aira and the agent can pinpoint your location and look around with your phone camera to see where you are. He can say, 'The street you want is to your right another block. Let's walk that way together.'" Other uses: Agents can help you navigate through airports to find your gate or orient yourself in a theater to help you find your seat.

## Zello

This "walkie-talkie app," which allows users to connect with one other person or up to 1,000 people around the world through a smartphone, tablet or computer, wasn't developed for people with vision impairments but has become popular among them. "It's more like the audio version of texting, except it's super-fast and lets you hear the person's voice in real time," says CEO Bill Moore. It's also become a go-to app in times of crisis, he says, such as fires and storms. And it allows for easy communication among people who have similar interests. One example of a community that has come together via Zello: a group of Apple enthusiasts who are also sight-impaired. They started out discussing technology but evolved to share information on non-tech topics (such as how to deal with people at a bus stop who may not know the user is blind). Zello was introduced in 2012, but recent enhancements improve functionality by simplifying or eliminating navigational steps on screen. Other walkie-talkie apps include HeyTell and Voxer.

## More on Vision Assistance

- [New hope for aging eyes \(/health/conditions-treatments/info-2018/new-eye-treatments-glaucoma-cataracts.html\)](/health/conditions-treatments/info-2018/new-eye-treatments-glaucoma-cataracts.html)
  - [After vision loss, classical violinist keeps playing, thanks to tech \(/health/conditions-treatments/info-2018/classical-violinist-vision-loss.html\)](/health/conditions-treatments/info-2018/classical-violinist-vision-loss.html)
- 

## Join the Discussion

Comments: 0 | [ADD YOURS](#)

