

NECO Low Vision Lab Newsletter

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WELCOME TO THE TECHNOLOGY ISSUE!

So many options for visually assistive technology -- what is right for you? In this issue, we will discuss the multitude of technologies available for those with visual impairment, from built-in assistive technologies to smartphone applications offering magnification, optical character recognition and remote agents helping out with visual tasks among many. These technologies are efficient, low-cost or free, and very convenient, allowing you to live more independently.

BUILT-IN ASSISTIVE TECHNOLOGY

Built-in assistive technology on computers, smartphones, and tablets includes features like screen readers, speech-to-text, text-to-speech, and adaptive keyboards in addition to magnification.

DID YOU KNOW?

As of January 2025, 91 % of all Americans own a smartphone (98% own a cell phone of any kind) and over 93% have internet access.



Built-in Accessibility

MAGNIFY ON COMPUTER

Zoom In:

Windows: Press and hold the "Ctrl" key and then press the "+" key.

Mac: Press and hold the "Cmd" key and then press the "+" key.

Zoom Out: use the "-" key instead



MAGNIFY ON SMARTPHONE/TABLET

iOS: Go to Settings > Accessibility > Display & Text Size, then tap Larger Text and adjust the slider

Android: Go to Settings > Accessibility > Text and display > Font size, and use the slider to adjust the font size to your preference.

Here, you can also increase contrast, make text bold and invert colors.

NARRATION/VOICE OVER

COMPUTERS:

To activate narration on a computer, press Windows logo key + Ctr + Enter simultaneously (PC) or Command + F5 (Mac). To deactivate, simply press the same keys.

SMARTPHONES/TABLETS:

Go to Settings > Accessibility > Voice Over, and toggle it on (iPhone/iPad) and Go to Settings > Accessibility > Select to Speak (Android)

OTHER ACCESSIBILITY FEATURES

For other features, such as enhancing contrast, inverting text colors (white on black), enlarging pointer and adjusting display colors:

COMPUTERS:

Windows: Press [here](#) for instructions.

Mac: Press [here](#) for instructions.

SMARTPHONES/TABLETS:

iOS: Press [here](#) for instructions

Android: Press [here](#) for instructions

HELP CAN BE HAD! There are local organizations that offer technology services/instruction for the visually impaired.

Here are a few:



[The Carroll Center for the Blind](#)
[Massachusetts Association for the Blind and Visually Impaired](#)
[Massachusetts Commission for the Blind](#)



If you prefer learning by using videos, these are some good options:

The Blind Life: Click [here](#).

American Foundation for the Blind: Click [here](#).

Lighthouse Guild: Click [here](#).

SMARTPHONE/TABLET APPLICATIONS

Mobile applications (apps) are portable, convenient and affordable!

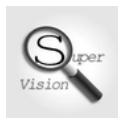
There are over 60 visually assistive apps available for download on iOS and Android. Most of them are free. They offer features such as magnification, text-to-speech, GPS navigation, object and scene recognition using AI, bar/QR code scanning, currency recognition and live video calls for real-time assistance by a remote agent.



These are some of our favorites:



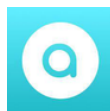
Seeing AI: Free multipurpose app which reads out loud both typed and handwritten text placed under phone camera. Using AI, it can also describe scenes and faces, read barcodes, recognize money and colors.



SuperVision Magnifier: offers magnification with image stabilization capabilities. Free app.



SuperVision Search: "Smart magnifying glass" uses your phone camera to locate and interpret bank statements, restaurant menus and other information of interest in the physical world. Free app.



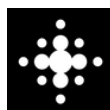
Aira: Connects user with a remote trained assistant who has a view through the phone's camera and who provides visual interpretation. Paid service - users are charged according to different plans. Free at airports and selected retailers/restaurants/cafes.



Be My Eyes: Also uses video to connect you to a trained assistant who will help you with various visual task. This service is free and uses volunteers as the seeing guides.



Lazarillo: Free inclusive navigation app. Routing or guiding from one point to another. Will help user explore by indicating services and features in the surroundings. Indoor navigation available at certain locations.



Envision AI: Free app which also narrates the world around you using your smartphone's camera. Similar features to Seeing AI, but this app takes an image automatically.

To learn more about what we are doing at the Low Vision Lab, click [here](#), and if you would like to read our latest publications, click [here](#).

"We'd like to extend our heartfelt thanks to everyone who has participated in our research studies and supported our work. Your time, insights, and dedication are instrumental in advancing both scientific knowledge and clinical education. Every data point and shared experience helps move the field forward and shapes the future of care. This month, we've also been busy behind the scenes writing grants and putting forth proposals for future projects. We're excited about what's ahead and remain grateful for your continued commitment to our shared mission."
- Nicole Ross

If you would like to get more information about the lab or if you are interested in participating in research, please contact us at: Idmanraitc@neco.edu or 617-587-5722