



Choosing the Right Path: Exploring Assistive Technology for Vision Loss

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Contributions by Liz Persaud, and Carolyn Phillips



About Tools for Life

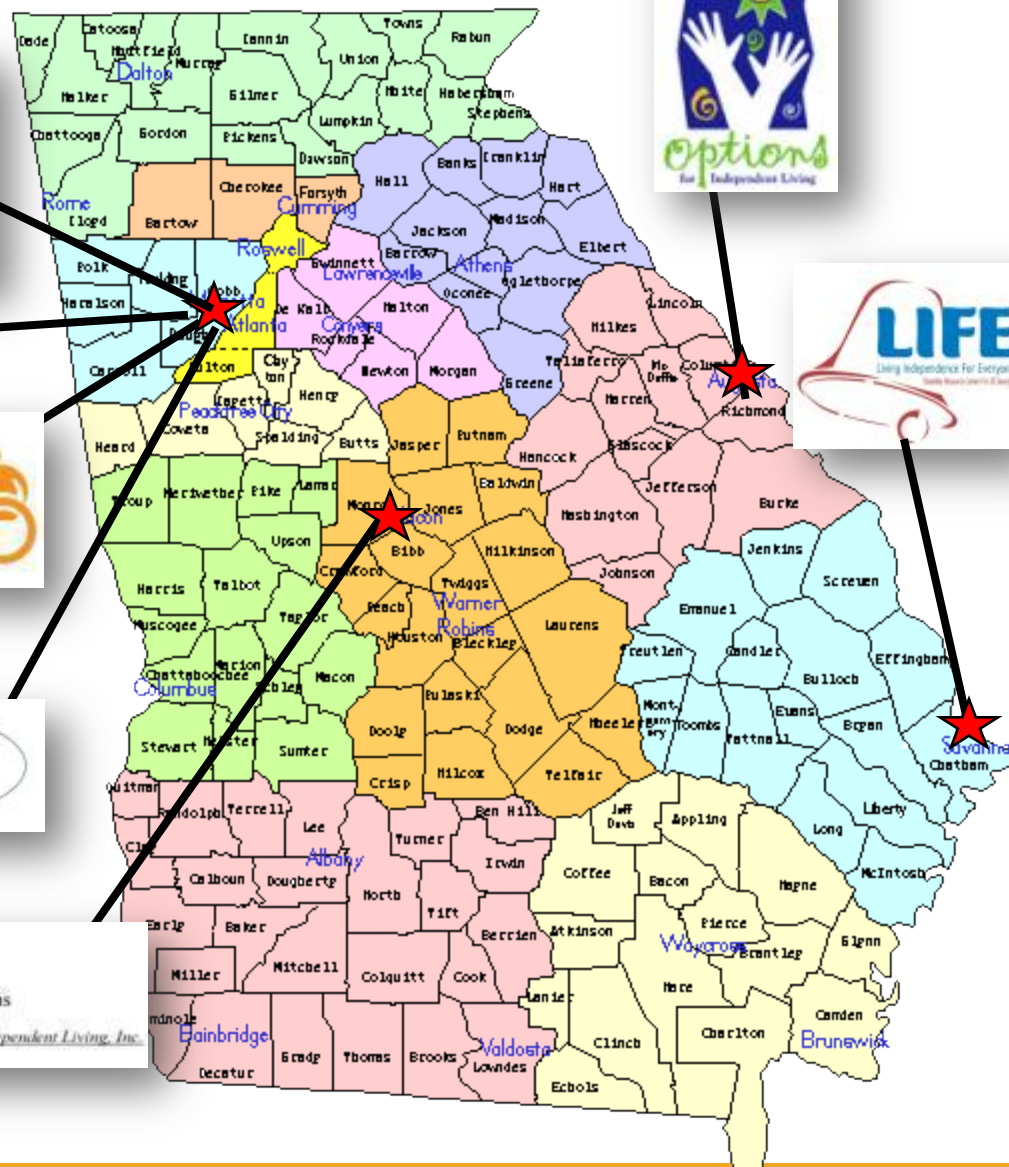
- AT Act Program for state of Georgia
- Serve all ages and all disability types
- Live, learn, work and play
- Increase access to and acquisition of AT
- Loan closet
- www.gatfl.org



Tools for Life Network



AT Lending Library
AT Evaluations & Training
AT Demos
Resource and Assistance
AT Funding Assistance
AT & DME Reuse



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Find Your AT Solutions



Welcome to Tools for Life

Tools for Life, Georgia's Assistive Technology Act Program, is dedicated to increasing access to and acquisition of assistive technology (AT) devices and services for Georgians of all ages and disabilities so they can live, learn, work and play independently and with greater freedom in communities of their choice.

ATLANTA ABILITIES EXPO

**Abilities
EXPO**

**MAR
14**

Georgia World Congress
Center
Hall C4
Atlanta, GA

WEBINARS

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6**

[Choosing Core AT Inventory for
the Classroom](#)

**FEB
18**

[Two Peas in a Pod: IEP
Objectives & Standards Based
Instruction](#)

**MAR
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TOOLS FOR LIFE APPFINDER



...for Living, Learning, Working, and Playing.



Direct AT Service Activities

DOLLARS & SENSE



NAVIGATING THE AT FUNDING STREAM

- Web-based Funding Guide
- A resource for locating funding sources for AT devices and services. This guide was developed to make the funding process easier and to assist consumers in getting the assistive technology they need.
- New resources added frequently!



Georgia's Alternative Financing



<http://www.gatfl.gatech.edu/cfii.php>



Credit-Able Program Criteria

To receive a Credit-Able Loan you must be:

- A resident of Georgia

AND

- An **individual** with a disability

OR

- A **family member** or legal guardian of an individual with a disability

OR

- An **employer** of an individual with a disability
- Able to pay back the loan
- Using the loan to buy assistive technology equipment and services





What is Assistive Technology?

Assistive Technology Device

...any item, piece of equipment or product that is used to increase, maintain or improve functional capabilities of individuals with disabilities.

- Public Law 105-394 [29 USC 2201]

Low/No-tech

- pencil grip
- adapted books
- slant board
- highlighters, tape
- magnifiers
- color coding
- read to out loud
- picture schedule
- strategies for memory
- colored transparencies
- Proof readers
- note taker

Mid-Tech

- word prediction
- text to speech
- speech to text
- spell checkers
- talking calculators
- digital recorders
- organizers
- e-books
- adapted keyboard
- adapted mouse
- adapted toys
- CCTV
- apps under \$100

High-Tech

- computer/laptops
- tablets/phablets
- smartphones,
- smartpens
- OCR scanner/software
- magnification software
- speech output devices
- switch, joystick access
- scanning access
- voice recognition
- environmental control devices
- apps over \$100

What AT is the *right* AT?

Depends on the Individual

- Ask!
- Environmental factors
- Placement
- Low tech options are just as important as mid/high tech (also, more affordable)
- Spatial considerations
- What have they already used?



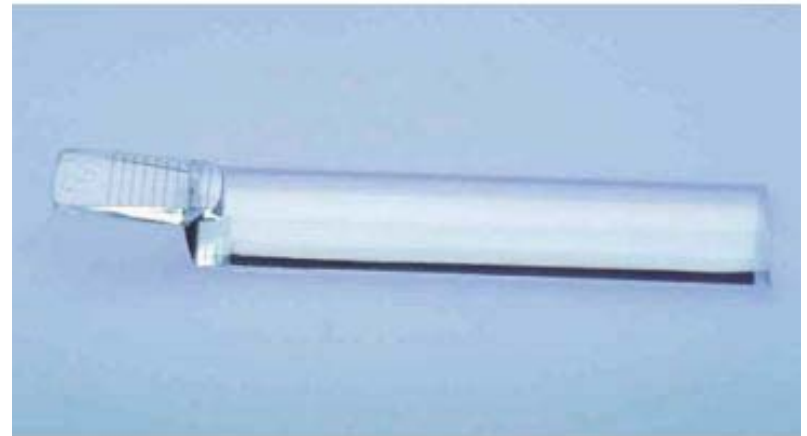


Asking Avoids Tech Abandonment



Low Tech Options

A large yellow rectangular area with horizontal lines for writing.



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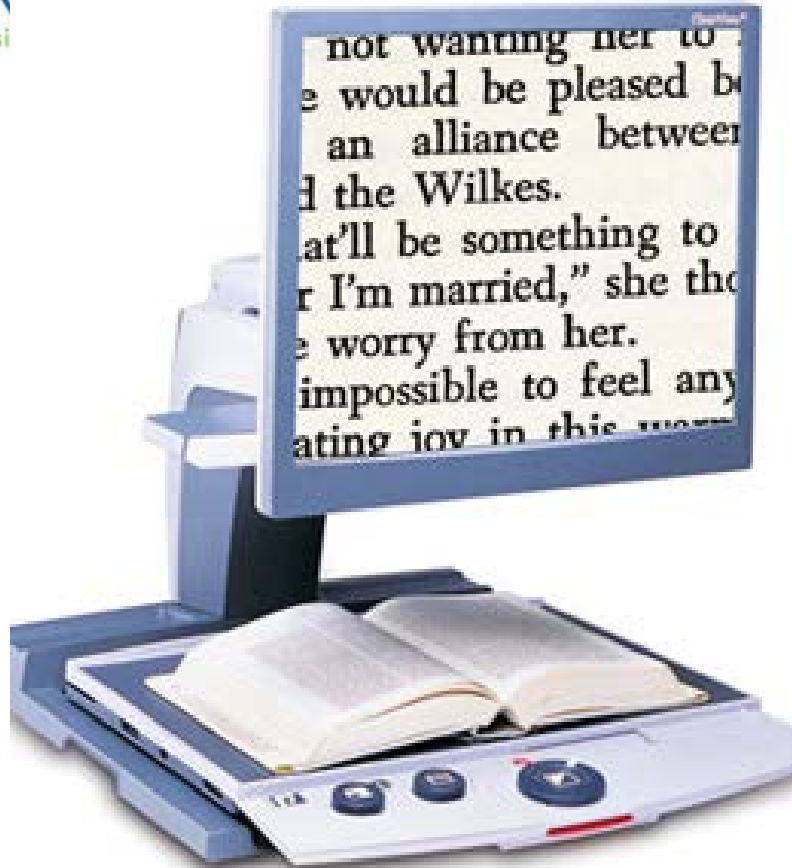
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Audible.com

- Digital audiobooks
- Read by Hollywood stars, authors, and professional narrators
- Listen anywhere
- Over 150,000 titles
- Membership
 - \$14.95/ month for one book



Medium Tech Options



BookSense

- Compact and portable DAISY reader
- Compatible with a wide range of audio format
- Built-in text to speech engine to read a variety of documents
- Ability to record notes
- Listen to books and music on the go
- \$299
- <http://www.hims-inc.com/products/booksense/>



Victor Reader Stream (new generation)

- Handheld media player by Humanware
- Plays DAISY books, MP3, MP4, EPUB
- Records voice and media
- Two built-in, human-sounding voices
- Built-in wireless networking capability
- \$369





High Tech Options



Portable Video Magnifiers

- Great for Students
- Save images
- Magnify papers and items on the board
- Connect to laptop
- Change background colors



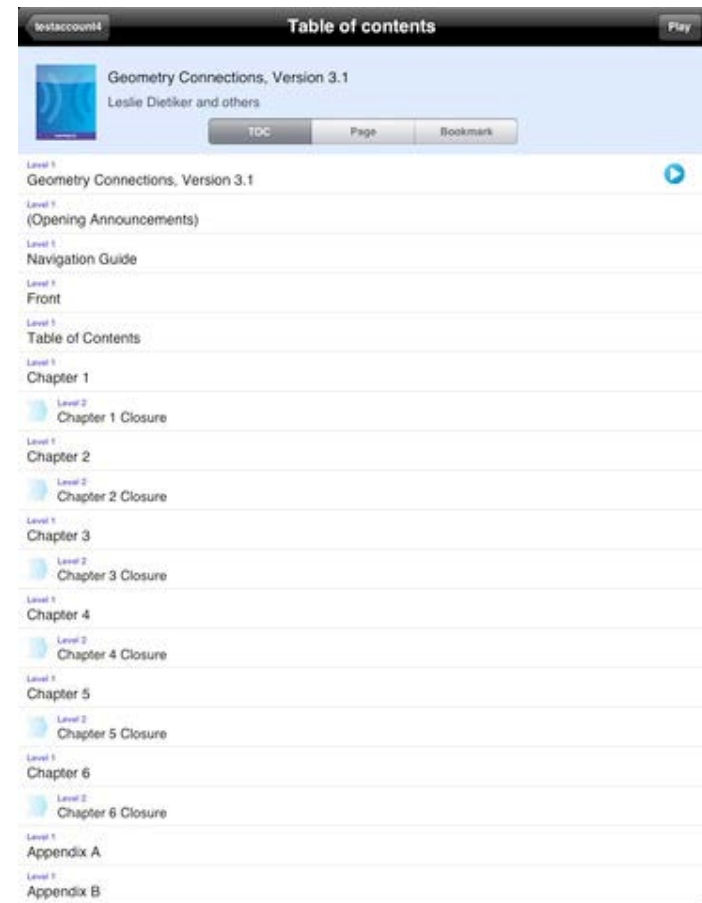
- Portable scanner and reader
- Can save images
- Can reader speed
- Calendar
- Very Fast
- Expensive around \$2500

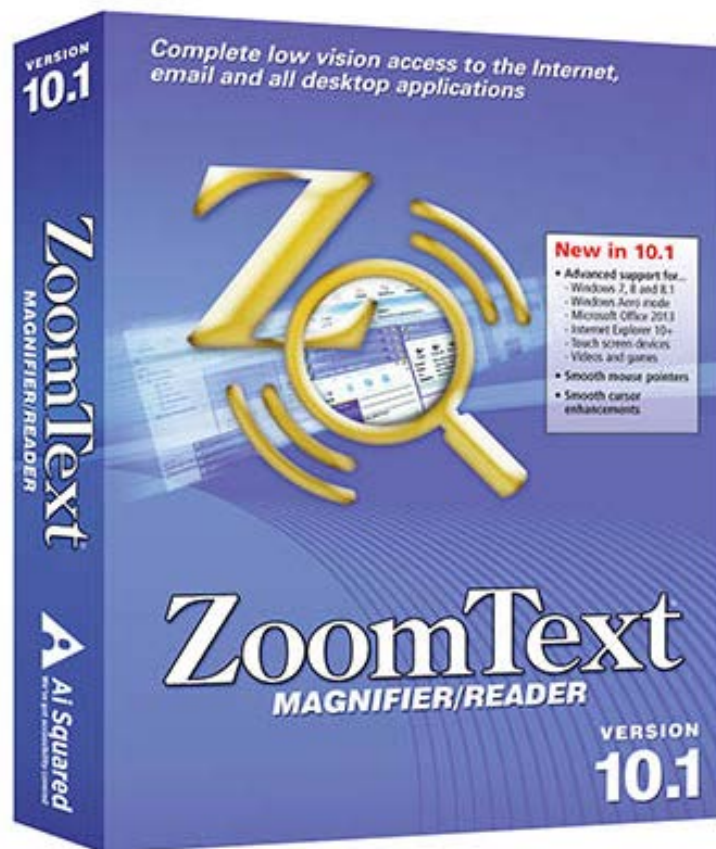


Software

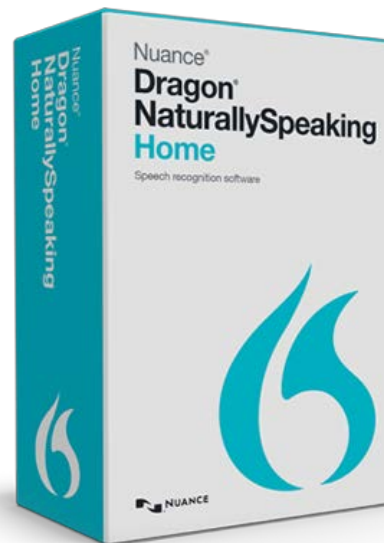
Learning Ally

- Learning Ally
 - [DAISY](#)
 - Membership required
 - over 75,000 audiobooks, audio textbooks, and other recorded books
 - Free Trial

A screenshot of the Learning Ally "Table of contents" interface. The header shows "testaccount4" and "Table of contents" with a "Play" button. Below is a book cover for "Geometry Connections, Version 3.1" by Leslie Dietiker and others, with buttons for "TOC", "Page", and "Bookmark". The main list includes: Level 1: Geometry Connections, Version 3.1; Level 1: (Opening Announcements); Level 1: Navigation Guide; Level 1: Front; Level 1: Table of Contents; Level 1: Chapter 1; Level 2: Chapter 1 Closure; Level 1: Chapter 2; Level 2: Chapter 2 Closure; Level 1: Chapter 3; Level 2: Chapter 3 Closure; Level 1: Chapter 4; Level 2: Chapter 4 Closure; Level 1: Chapter 5; Level 2: Chapter 5 Closure; Level 1: Chapter 6; Level 2: Chapter 6 Closure; Level 1: Appendix A; Level 1: Appendix B. Each item has a small blue play button icon to its right.



HARTGEN
CONSULTANCY



Accessibility on the Go

- Mobile devices are the most versatile tools at your disposal
- There are apps for many items that would have been a stand alone device in the past
- There are a ton of options out there
- Know your databases and how to use them

Microsoft Surface

- Windows 10
- Slim and has a USB port
- Moveable Tiles
- Built-in Accessibility
 - Speech-to-text
 - Narrator
 - Magnifier
 - High contrast
- Thin pressure sensitive cover that doubles as a keyboard
- Starts at \$499



Apple iPad Pro/Air/Mini

- Multi - touch screen
- Smart Keyboard with iPad Pro
- New iOS 9
- Millions of apps
- Surf web
- iTunes
- HD Video
- Organization
- Accessibility
- Books
- Photos
- Speakers
- 5.0 megapixel camera



TFL AppFinder

Search by:

✓ **App Name**

✓ **Categories**

- Book
- Education
- Environmental Adaptations
- Hearing
- Cognition, Learning, Developmental
- Navigation
- Personal Care and Safety
- Productivity
- Communication
- Therapeutic Aids
- Vision



Apple Vis

- <http://www.applevis.com/apps>
- Specifically for iOS/Apple ecosystem
- Specifically for blind/low vision apps
- Robust database, reviewed by accessibility users

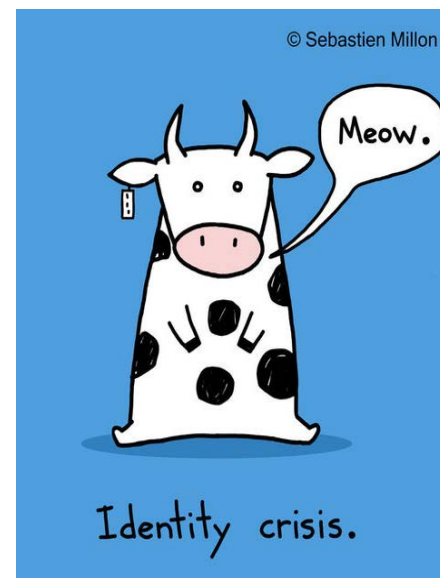
OCR

- Optical Character Recognition
- Many options and various price points
- Not a good option for handwriting, images can be tricky
- KNFB Reader- \$99
- Prizmo- 9.99
- Office Lens- Free



Apps for Identification

- Use the camera to get descriptions and products
- CamFind- Free
- TapTap See- 10 IDs free, then you buy bundles
- Google Goggles- free



Scanning

- Accessibility in a pinch (literally)
- Great for receipts, class notes, handouts, etc
- Synchs to the cloud
- Office Lens, free
- Scanner Pro, \$2.99
- Your camera, free



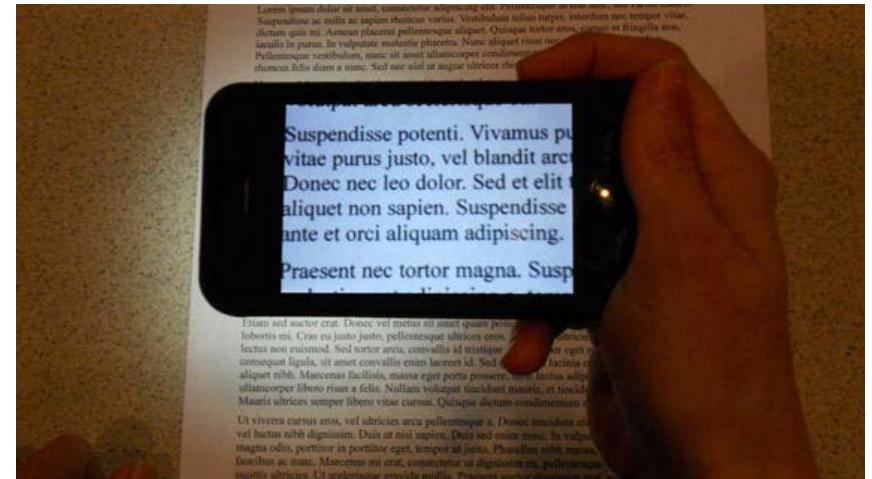
Video Magnifiers

- Resolution is key
- Very versatile devices
- Mobile or desktop?
- OCR functionality

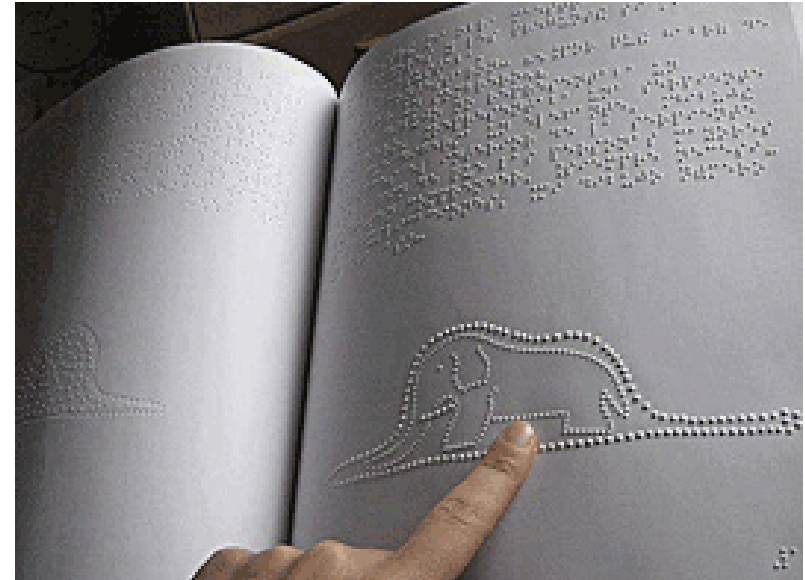


Magnification Apps

- Many options and various price points
- Pros/Cons
- Magnifying Glass, free/paid
- Magnifier 30x



Another alternative (format)



What's New In AT and the AT Community:

eSight



- Video Magnifier for your face
- Low vision/high partial
- Stationary and walking mode
- Product of Canada
- **Very expensive**
- Little competition

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See for Yourself

What is OrCam?

OrCam is an intuitive portable device with a smart camera designed to assist people who are visually impaired.

OrCam gives independence.



- Haptic Footwear
- Uses GPS to let you know where you are
- Connects with app
- www.lechal.com



Apple Watch

- Voiceover
- Zoom
- Haptic Feedback
- “Hey Siri”
- Apple Pay
- Built in Microphone and Speaker
- “Raise to Speak”
- Health App
 - Hourly reminders to stand
 - Heart rate
 - Steps



Amazon Echo



- Speech-controlled speaker system
- Voice recognition - further distances
- Timers, news, information
- Invitation only
- \$199, \$99 Prime members

Toyota: Project BLAID

- Worn around the shoulders and aims to fill in the everyday gaps visually impaired users experience using canes, dogs and GPS devices
- U-Shaped
- help them identify everyday indoor items such as escalators, stairs and bathrooms
- built-in cameras will detect the user's surroundings and the device will communicate information using speakers and vibration motors
- be able to interact with the device using voice recognition technology and buttons
- eventually add mapping, object identification and facial recognition technology

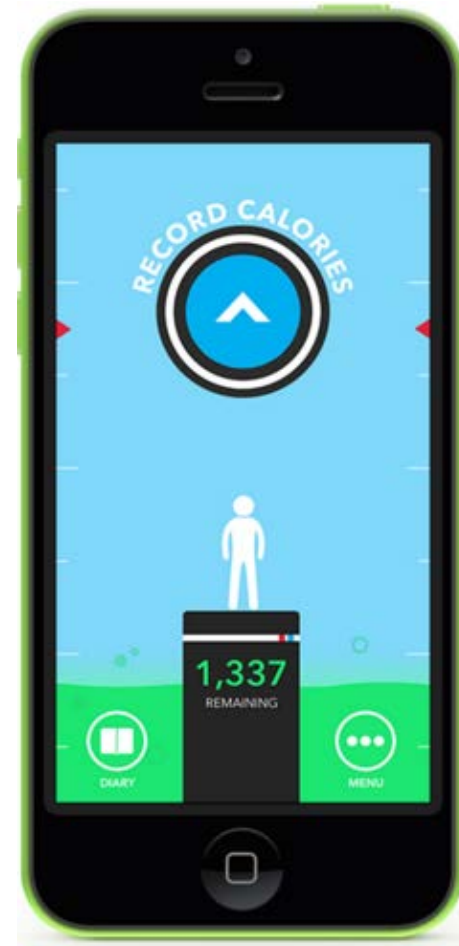
Pixie

- Maps all of the digital things in your life
- Place a pixie chip on any device and map will tell you it's precise location
- <https://www.getpixie.com/>

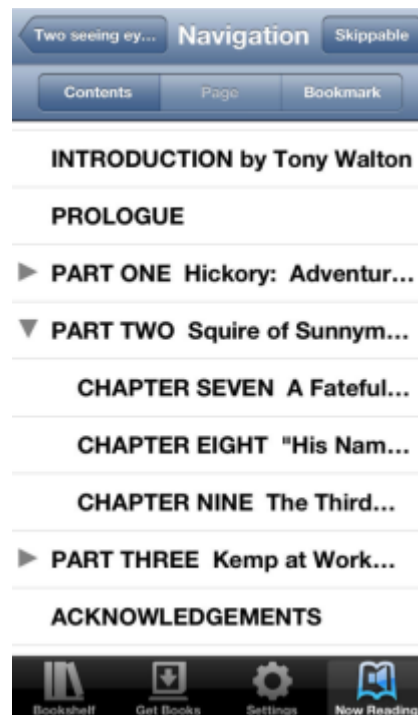


CARROT Hungry

- Free
- Sarcastic!
- Works well with Voiceover
- Keeps track of calories
- Lets you know how much exercise you will need to do



BARD Mobile



- Access directly to the National Library Service for the Blind and Physically Handicapped (NLS)
- Must be registered
- Settings
- Can use with braille display
- <http://www.loc.gov/nls/find.html>
- Free



- \$3.99
- Uses the built in camera to scan documents
- Edit, copy, store, email documents
- Upload to online storage is as Evernote
- Does take practice for picture

TapTapSee

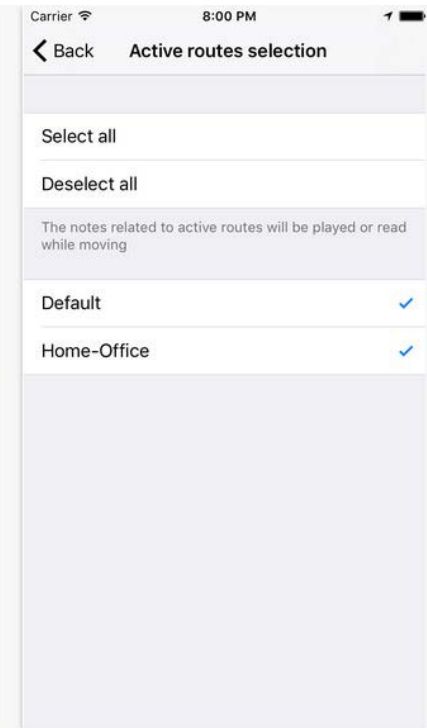
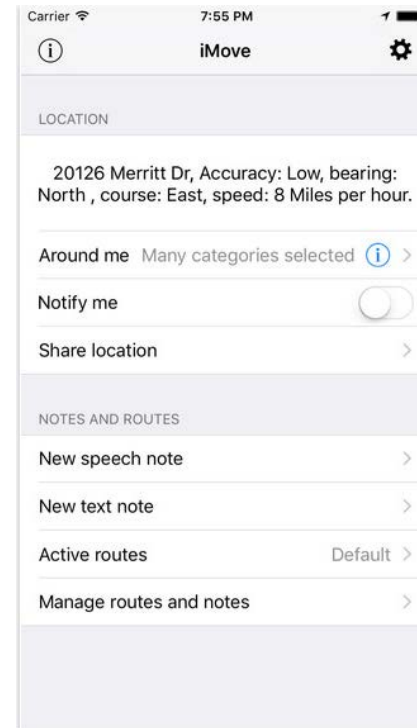
- Designed to help people with low vision identify objects they encounter in their daily lives.
- Double tap the screen to take a photo of anything, at any angle, and hear the app speak the identification back to you.
- Requires VoiceOver to be turned on.



iMove



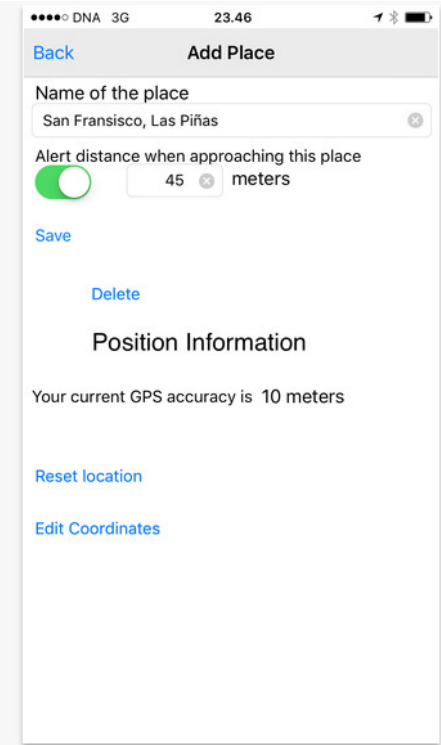
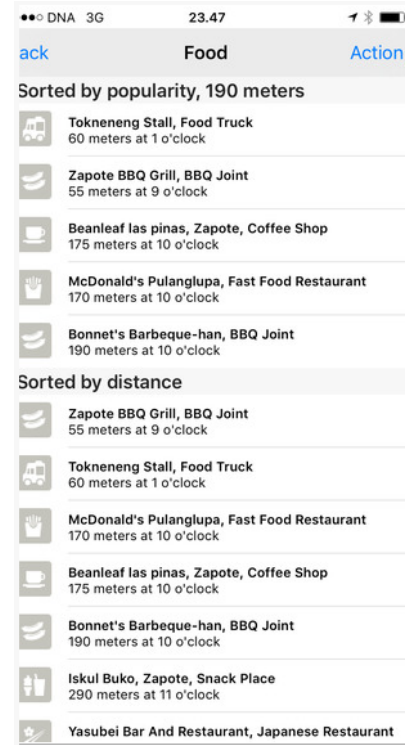
- can read the details of a point of interest and then: you can open the system navigator to reach the point of interest, call it or visit the website (where available);
- you can share your current location via text message;
- you can group notes in routes;
- text notes are available (in addition to speech notes);
- you can share your text notes with your contacts;
- you can import text notes created by your contacts





BlindSquare

- uses GPS and the compass to locate you; gathers information about the surrounding environment from FourSquare
- aware of when you travel by car, bus or train and starts to report interesting places in front of you (for example, the next stops) and street crossings when you are passing them
- when you are in a place, you can check in by shaking your device
- \$29.99



Driverless Cars and Smart Technologies

- Driverless Cars
- Internet
- Capture data
 - See how car is driven
 - Turn down music until seat belt is buckled
- Hands free/ Cameras
- Parallel park
- Ability to sense when to slow down

Ford plans 2 smart-car projects at Georgia Tech

7 January 2015 in [Cars](#), [TRANSPORT](#) by Ken Edelstein



If a golf cart whizzed by you recently on the Georgia Tech campus without a driver, don't worry — you weren't seeing things. An it wasn't being driven by a ghost, either.

It probably was part of a smart-car initiative announced Tuesday by Ford Motor Co. CEO Mark Fields. The company plans to engage in "25 mobility experiments across the globe" to advance its "Ford Smart Mobility" initiative, Fields told an audience at the [Consumer Electronics Show](#) in Las Vegas.



Google unveiled a prototype for its autonomous car in advance of the Consumer Electronics Show. Photo courtesy of Google.

Two of those experiments will take place at Georgia Tech. The first is described as "Remote Repositioning."

"It involves an operator that is able to remotely drive real vehicles from the comfort of their office in Atlanta," Ford Chief Technical Officer Raj Nair said in a co-presentation with Fields. "Using available technology including video cameras and sensors, streamed over a public 4g/LTE network, we used golf carts as a proof of concept. These low-speed golf carts are used on campus at Georgia Tech for [transportation](#) for administrators and faculty. If successful, this could help change car-sharing forever."

Nair described the second initiative at Tech as "Parking Spotter."



**Our Question to You:
What have You Learned today?**

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Disclaimer

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