



Georgia's Assistive  
Technology Act Program

# Exploring Assistive Technology Solutions: Apps & Wearables

***Ben Jacobs***

*Tools for Life | AMAC Accessibility*

*College of Design | Georgia Institute of Technology*

***ATN Webinar***

***August 28, 2017 at 1:00PM EST***

***[www.gatfl.gatech.edu](http://www.gatfl.gatech.edu)***

# Meet Your Presenter

## Ben Jacobs, Accommodations Specialist



Ben Jacobs is a retired Staff Sgt. serving 10 years in the United States Air Force. During his time in the USAF he provided information technology support and network security at Langley Air Force Base in Virginia, Osan Air Force Base Republic of South Korea, and Peterson Air Force Base in Colorado. Ben brings to the Tools for Life team his passion and drive for technology and enhancing independence for people of all ages and abilities. His experience with Android devices and software development will enhance the TFL AT Solutions Lab at Georgia Tech. Ben currently lives in Alpharetta with his wife.

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# Agenda



Welcome to the assistive technology (AT) revolution, where apps and wearables are at the forefront! Apps are assisting people with disabilities by promoting more independence, increasing opportunities for inclusion, promoting depth of learning, providing equal access in education, career and community settings, as well as supporting smoother transitions. Apps combined with wearable technologies are providing quick and easy access to information by interweaving it into daily life.

This webinar will provide you with an overview and demonstration of the Tools for Life AppFinder, a database with apps identified for and leveraged by individuals living with disabilities. Additionally, presenters will review a few apps for reading, along with some quick updates on newer wearable technologies that are reinventing everyday lives whether at home, in the community, work or at school.

# Tools for Life Mission

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.



# Visit us Online!



A screenshot of the Georgia Tech Tools for Life website. The header features the Georgia Tech logo and "TOOLS for LIFE" in a large, blue, stylized font. Below the header is a navigation bar with links: HOME, ASSISTIVE TECHNOLOGY, TFL NETWORK, CALENDAR OF EVENTS, and a search bar. The main content area is divided into several sections. On the left is a vertical sidebar with links: TRAINING, FUNDING, PUBLICATIONS, TFL WPB, MEET THE TFL TEAM, MEET THE ADVISORY COUNCIL, DIRECTIONAL MAP, JOIN OUR MAILING LIST, and SCHEDULE A TOUR. The central area contains two photographs: the top one shows a group of people interacting with a large screen, and the bottom one shows a group of people in a meeting. Below the photos is a text box that reads: "Stay up-to-date on the latest assistive technology strategies and solutions with customized individual and group trainings." To the right of the central area is a sidebar with sections: "GATE 2016" (Georgia Tech Student Center), "WEBINARS" (Content/Webinar Schedule, Webinar Archives), "TOOLS FOR LIFE APP GUIDE" (for living, learning, working, and playing), "AT ONLINE EXCHANGE" (gTRADE), and "AT FUNDING GUIDE" (DOLLARS &amp; SENSE). At the bottom of the central area is a "Welcome to Tools for Life" section with a paragraph about the program's mission and a list of links: AT Resources Library, AT Case Studies and Applications, and AT Funding Options Information.

# TFL Network

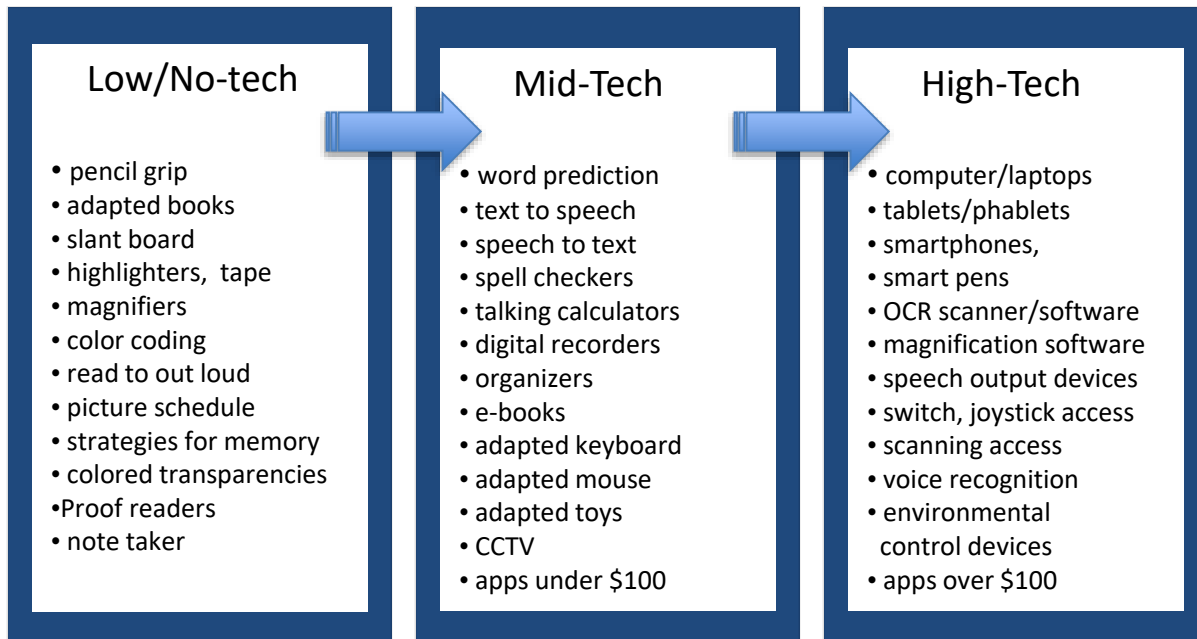




# Assistive Technology Continuum

## Observations and “Hanging out with Intent”

Assistive Technology is a ***continuum of tools, strategies, and services*** that match a person's needs, abilities, and tasks.



# Why Assistive Technology?

For a person without a disability,  
technology makes life easier.

For a person with a disability,  
technology makes life possible.

**TIP: USE AT! We have yet to  
meet a successful individual who  
does not use any AT.**





# Exploring Wearable Solutions

# Wearables at a Glance

## Types of Wearables

- Smart Watches
  - Haptic, Audio, Bio, and Visual Feedback
  - Smart Device Connectivity
- Medical Bracelets
  - “Dumb” Device with Medical Information/Alert Capabilities
- Bio Feedback
  - Worn technology that can monitor the bodies status
- Haptic Feedback
  - Alerts the user via a vibration or series of vibrations
- Visual Aids
  - “Sees” items and the environment around the user and translates it to an accessible format
- Audio Aids
  - Hears the audio in the environment and amplifies it

# Wearables In Depth

Wearables we will cover more in depth

- Apple Watch
- Android Wear
- Dot Braille Watch
- Orcam
- Lechal
- Buzzclip



# Apple Watch

- Access to Siri Assistant
- Phone Notifications
- Built in GPS
- Heart Rate Sensor
- Breathe App
- Series 3 to be announced soon
- Starts at \$269



# Android Wear Watches

- “OK Google”
- Phone Notifications
- Various features
  - Depends on Model/Manufacturer
- Android Wear Marketplace
- Starts at \$160 (LG Watch Style)



# Dot Braille Watch

- Dynamic Braille Display
- Phone Notifications
- Text Messages
- Time
- Price TBA





- Artificial Vision
- Designed to help
  - Blind
  - Visually Impaired
  - People with Reading Disabilities
- Hear Text
- Recognize Faces
- Identify Items
- \$2500



# Lechal Haptic Inserts

- GPS Connected
- Sole Insert
- Haptic Feedback
- Activity Tracker
- \$150



- Clip on proximity sensor
- Alerts user of obstructions a cane or guide dog may not detect
- Haptic feedback
- Adjustable sensitivity
- \$250



# Tools for Life Appfinder Database

# TFL Appfinder Database






## Search by:

✓ **App Name**

✓ **Categories**

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



HOME ASSISTIVE TECHNOLOGY TFL NETWORK CALENDAR OF EVENTS    Search our Site

TRAINING

FUNDING

PUBLICATIONS

TFL WIKI

MEET THE TFL TEAM

MEET THE  
ADVISORY COUNCIL

DIRECTIONS/MAP

JOIN OUR  
MAILING LIST

SCHEDULE A TOUR

Welcome AT Services Try AT Get AT AT Guides Research



AT Funding



Credit Able



Dollars & Sense



gTrade

Explore Your AT Funding Options

#### WEBINARS

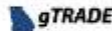
- Current Webinar Schedule
- Webinar Archives

#### TOOLS FOR LIFE APPFINDER



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

#### AT ONLINE EXCHANGE



#### AT FUNDING GUIDE

**DOLLARS & SENSE**

REWRITING THE AT FUNDING STORY



# Appfinder Search

- TRAINING
- FUNDING
- PUBLICATIONS
- TFL WEB
- MEET THE TFL TEAM
- MEET THE ADVISORY COUNCIL
- DIRECTIONS/MAP
- JOIN OUR MAILING LIST
- SCHEDULE A TOUR
- AT REFERRALS

## AppFinder

[About](#) | [Our Other Favorite Apps Databases](#) | [Helpful Links](#)

Welcome to the Tools for Life Database - Our Favorite Apps for Living, Learning, Working, and Playing!

### Search By:

Name:

OR

- Please select...
- AAA
  - Ageing
  - Amplifiers
  - Art
  - Audiobook
  - Books
  - Crime Identifiers
  - Civilian Resources
  - Communication
  - Computer Access
  - E-Books
  - Education
  - Elementary
  - Emergency Preparedness
  - Emergency Reminders
  - Environmental Adaptations
  - Games
  - Geography
  - Handwriting

### Price:

☒ Free ☐ Up to \$4.99 ☐ Up to \$9.99 ☐ All

### Device Type:

- ☐ Android
- ☐ iOS
- ☐ Microsoft
- ☐ BlackBerry

### WEBINARS

- [Current Webinar Schedule](#)
- [Webinar Archives](#)

### TOOLS FOR LIFE APPFINDER



### AT ONLINE EXCHANGE



### AT FUNDING GUIDE

**DOLLARS & SENSE**  
MAGAZINE BY AMAC/ACCESSIBILITY

# Some of our Favorite Apps

# Audible

- Digital audiobooks
- Read by Hollywood stars, authors, and professional narrators
- Listen anywhere
- Over 180,000 titles
- Membership
  - \$14.95/ month for one book



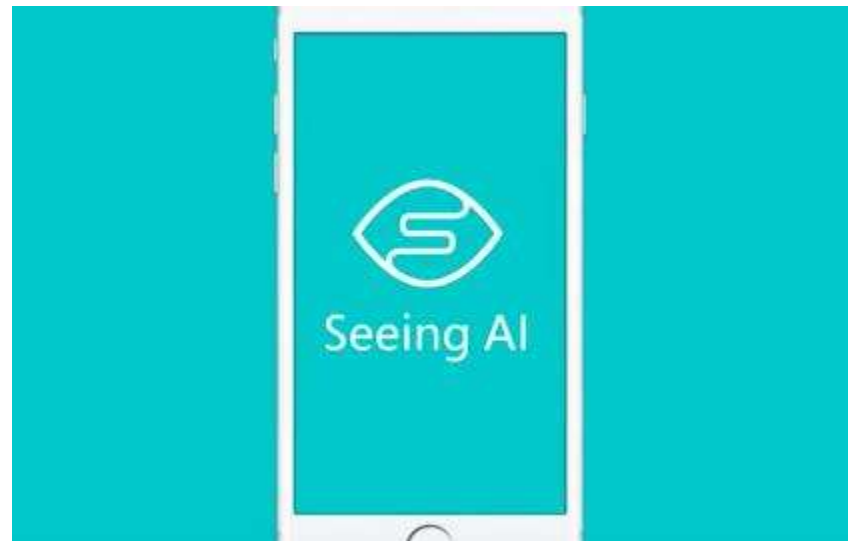
# OverDrive

- Your public library, online!
- Borrow books
  - Ebooks
  - Audiobooks
- Must have a library card
- Access your public library without leaving the house



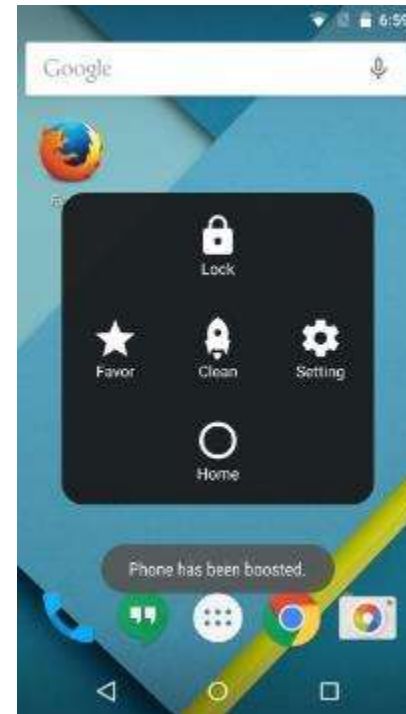
# Microsoft Seeing AI

- Narrates the world around you
- Reads short text as soon as it is in front of the camera
- Scan and read documents
- Scans barcodes to identify items
- Recognize faces and facial expressions
- Describe the scene around you
- Identify currency



# Assistive Touch

- Floating overlay buttons
- Quick access to apps and device features
- Emulates physical buttons
- Customizable shortcuts





# Google Translate

- Type to translate
  - 103 supported languages
- Translate from another app
  - Copy and Paste
- Translate using camera
  - 30 supported languages
  - Frame text using camera to see it translated visually



Google  
Translate

# The Tools for Life Team



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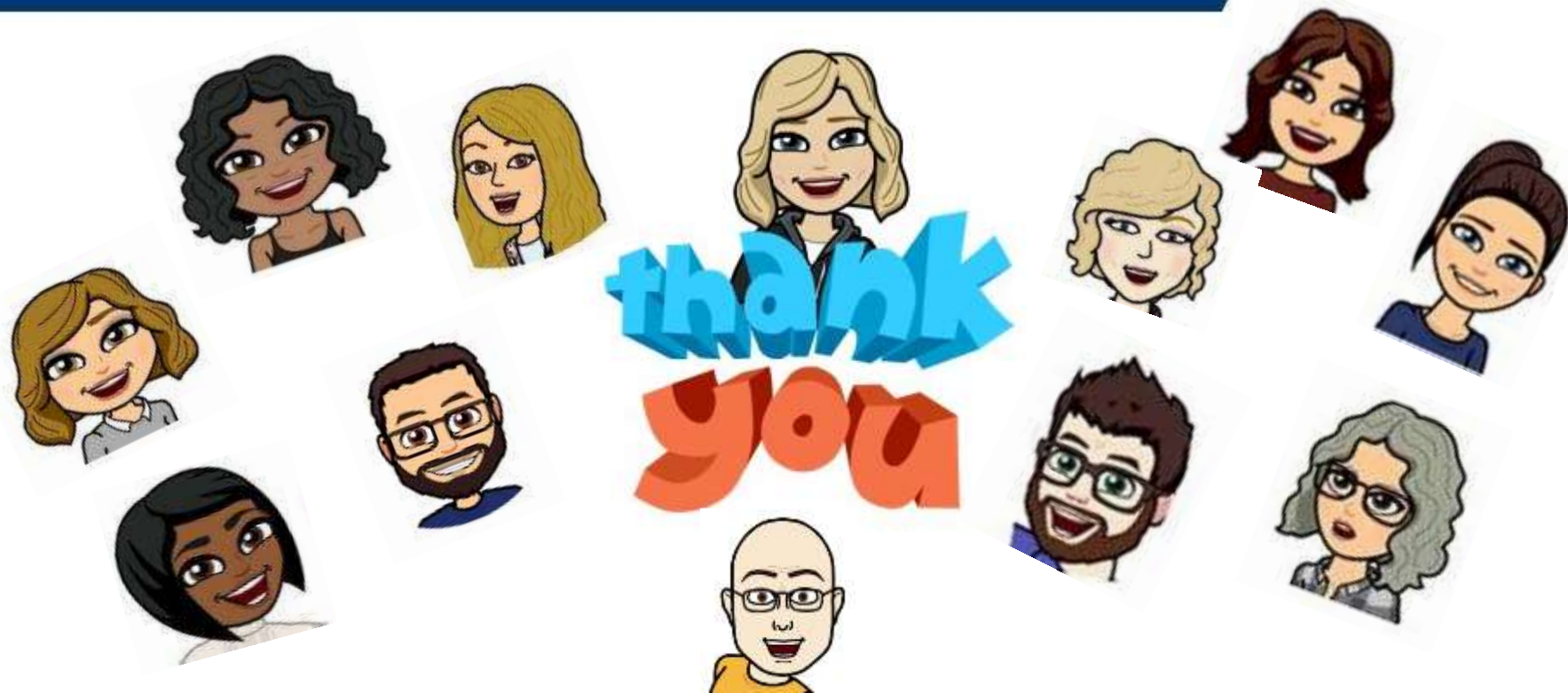
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# Disclaimer



Disclaimer: Produced by Tools for Life (TFL), which is a result of the Assistive Technology Act of 1998, as amended in 2004. TFL is a program of the Georgia Institute of Technology, College of Design, AMAC Accessibility Solutions and Research Center and was made possible by Grant Number H224C030009 from the Administration for Community Living. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of HHS.