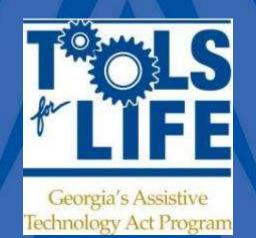
Tools for Life: Exploring Assistive Technology Strategies & Solutions

Session presented by: Liz Persaud and Ben Jacobs
With contributions from the Tools for Life Team and Network

Tools for Life AMAC Accessibility Solutions and Research Center College of Architecture | Georgia Institute of Technology

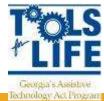
www.gatfl.gatech.edu



Session Description



- The world around is evolving at an astounding rate. Assistive Technology, or AT, has been foundational in this evolution and a catalyst for positive life-changing results for individuals with disabilities.
- Tools for Life, Georgia's Assistive Technology Act Program, at Georgia Tech is federal legislation that promotes access to and acquisition of assistive technology devices and services that allow Georgians of all ages and disabilities to live, learn, work, and play in the communities of their choice. Join us to learn more about the TFL Network and how assistive technology is a catalyst for positive life-changing opportunities for individuals living with disabilities.
- This presentation is available on the TFL wiki.

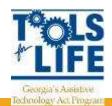


AMAC Accessibility



AMAC creates practical solutions that work, with a focus on utility, ease of use, and high quality.

- Accessibility Consulting focuses on organizational accessibility needs with evaluation, technical assistance, customer support, and website accessibility solutions.
- Braille Services produces customized projects from both print materials and electronic text including partial books and chapters or graphics only using cutting-edge technology.
- Captioning Services makes classrooms, meetings, labs and other audio environments fully accessible for deaf or hard-of-hearing.
- Professional E-Text Producers provide high-quality e-text in many formats such as PDF, DOC, DAISY, and HTML.
- Certified Assistive Technology team provides on-site and remote assessments, demonstrations, training and technical assistance for education, work, and daily living environments.



For more information, please visit our website at www.amacusg.org

Tools for Life Mission



We're here to help Georgians with disabilities gain access to and acquisition of assistive technology devices and assistive technology services so they can live, learn, work, and play independently in the communities of their choice.







Tools for Life & TFL Network



- TFL developed Georgia's Plan for AT
- We serve individuals of all ages & all disabilities in Georgia
 - Over 50,000 thru various activities throughout the year
- TFL Network
 - Assistive Technology Resource Centers/Outreach Sites
 - Lending Libraries
 - Training and Demonstrations
 - AT Reuse
 - AT Funding Education and Resources
- Online Resources



www.gatfl.org - 5,000 unique visitors a month

The TFL Network is Growing!

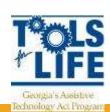


Join us for Webinars and Visit our Archives!



Tools for Life Online Professional Development

- Tools for Life offers online professional development to help you learn more about assistive technology strategies and solutions as well as the most recent information on AT devices and disability related issues and trends.
- Webinar content and materials are developed and presented by one of the Tools for Life team members along with other regional and national leaders in the assistive technology community.
- To join the TFL mailing list to receive our email announcements, visit www.gatfl.gatech.edu



Upcoming Conferences



GATE Seminar

- Friday, December 4, 2015
- Georgia Tech Student Center
- Workshops and educational sessions
- Interactive Exhibit Hall! Experience hands-on AT demos
- Student volunteers needed!
- Registration is \$10 and can be accessed on the TFL website

IDEAS Conference

- Monday, June 6 Friday, June 10, 2016
- St. Simons Island, Epworth by the Sea
- Over 120 workshops and educational sessions
- Interactive Exhibit Hall! Experience hands-on AT demos
- Student volunteers needed!
- More info coming soon!





HOME

ASSISTIVE TECHNOLOGY

TFL NETWORK

CALENDAR OF EVENTS





Search our Site

Go

TRAINING

FUNDING

PUBLICATIONS

TFL WIKI

MEET THE TFL TEAM

MEET THE ADVISORY COUNCIL

DIRECTIONS/MAP

JOIN OUR MAILING LIST

SCHEDULE A TOUR



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.

Tools for Life and the TFL Network work collaboratively together to accomplish

2015 IDEAS CONFERENCE

NUL

Epworth by the Sea, St. Simons

2015 GATE SEMINAR

DEC

Georgia Tech Student Center

WEBINARS

- Current Webinar Schedule
- Webinar Archives

TOOLS FOR LIFE APPFINDER



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

AT ONLINE EXCHANGE



AT FUNDING GUIDE

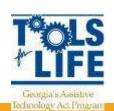
DOLLARS & SENSE

Assistive Technology



How do you define assistive technology?





Defining Assistive Technology



Assistive technology – "Any item, piece of equipment, product system, whether acquired commercially, modified, or customized, that is used to increase, maintain, or improve functional capabilities of individuals with disabilities."

Public Law 108-364





AT on a Continuum



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



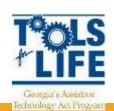
Why Assistive Technology?



 For a person without a disability, technology makes things Life easier.

 For a person with a disability, technology makes things Life possible.



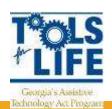


Hope



Hope begins in the dark, the stubborn hope that if you just show up and try to do the right thing the dawn will come.

Anne Lamott



AT Helps!



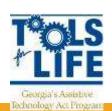
- Assistive Technology strategies and solutions can help support those living with disabilities, the aging population and those who have difficulties with:
 - speaking
 - hearing
 - seeing
 - moving around
 - getting places
 - memory
 - cognition (thought processes and understanding)
- daily living activities, such as dressing and preparing meals
 - socializing.



The "FAST" Track



- ✓ Frustration
- ✓ Anxiety
- √ Stress
- ✓ Tension



Human Activity Technology (HAAT) Model

- AMAC Accessibility for All
- Human: represents the skills and abilities of the person with a disability
- <u>Activity:</u> a set of tasks to be performed by the person with a disability
- <u>Context</u>: the setting or social, cultural and physical contexts that surround the environment in which the activity must be completed
- Assistive Technology: devices or strategies used to bridge the gap between the person's abilities and the demands of the environment



The SETT Framework



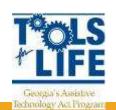
S = Student/Skills

E = Environment

T = Tasks

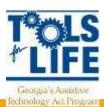
T = Tools

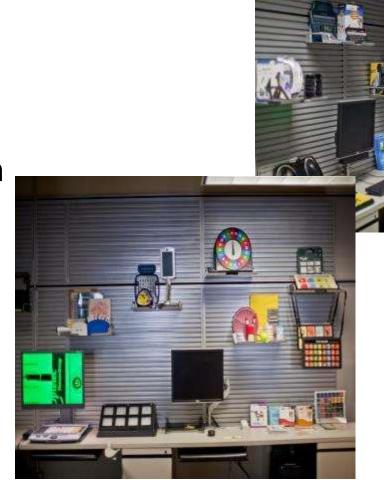




TFL AT Demo Lab - Where we were

- Tablets
- Vision Items
- DME
- Communication
- Games
- Software
- Switches
- Keyboards



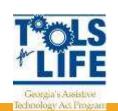


AT Funding Education and Resources

Dollars & Sense



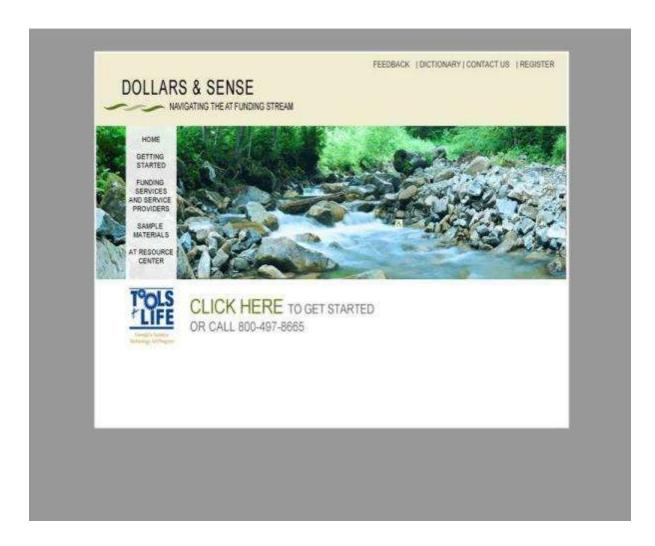
- Web-based Funding Guide
- A resource for locating funding sources for AT devices and services.
- This guide was developed to make the funding process easier and to assist consumers in getting the assistive technology they need.
- New resources added frequently!

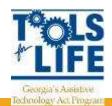




Dollars & Sense Funding Guide

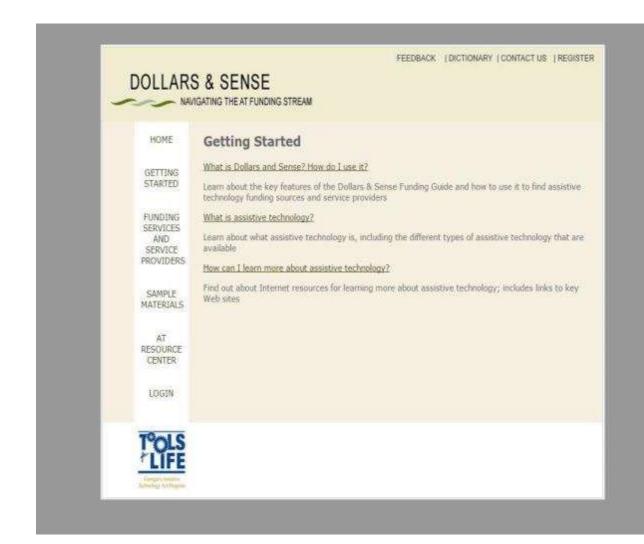


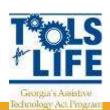




Dollars & Sense: Getting Started



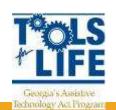




gTRADE – Equipment Exchange



- FREE resource for finding and exchanging assistive technology (AT) devices online
- Place an ad requesting items for sale, donation, or needed
- gTRADE encourages members to offer AT devices and information for sale or by donation to others who may benefit from using technology and equipment no longer in need by others
- www.gtradeonline.org





gTRADE

Home FA0s

Login

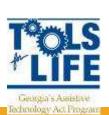




Display 1 - 5 of 10 Previous Page Next Page

Items Listed as Available on Gtrade Filter list by: Register Category: All Categories ▼ Posted: All Postings ▼ Type: All Type: ▼ All Categories Display records per page: 5 💌 😘 Computers & Related View Items Daily Living Aids On Your Mind Environmental Adaptations Hearing Click on Learning, Cognitive, & Developmental Mobility/Seating & Positioning Display 1 Other Previous A Recreation, Sports, & Leisure Speech Communication Rate Vehicle Modification & Transportation Price 42 Vision PACMate. Albany, GA 46 Vision MeastroTrekker GPS Albany, GA Albany, GA Vision ZoomText 9.0 Magnifier/reader 48 Vision AMIGO. \$ 600 Ellijay, GA 56 Daily Living Aids Accessible sink with chrome faucet \$ 250 Marietta, GA

Guest



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



Exploring Assistive Technology

PhD

hD

acceptance. Contexts for the discussion will include aging-in-place and health care.

Presentation 2: Human-Robot Interaction: The Potential to Support Successful Aging



Philips iCat

There is much potential for robots to support older adults in their goal of independent aging. However, for human-robot interactions to be successful, the robots must be designed with user needs in mind.

In the Human Factors and Aging Laboratory, Roger's lab is conducting research in the nascent field of older adult-robot interactions. In this presentation, Rogers

will provide an overview of the needs, capabilities, preferences, and limitations of older adults. She will then discuss our current and planned research on the design of robots to support older adults and health care providers. Our focus is on understanding the interactions among user characteristics, robot characteristics, and the context of the interactions (e.g., task demands).



GATSBII-Georgia Tech Service Bot with Interactive Intelligence

Presentation 3: Aware Home Technology to Support Aging-in-Place

Imagine if your home were "aware" of your activities so that it might help you remember what it was you went into the kitchen for or whether the visitor at the front door is someone you know or even what the proper procedure is for performing a recently learned home medical procedure. An aware home is not from the world of science fiction-it is within the realm of science. Such technological developments have the potential to enable older adults to maintain their functional independence and to "age-inplace." They also have the potential to support families caring for children with developmental disabilities or individuals recovering from illness or

injury. An innovative research program at Georgia Institute of Technology is focused on developing psychological and computer science to support home activities.

Aware Home at Georgia Tech



ools Help



Home

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Solutions >

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Blog

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"Exploring New Ideas with Advanced Social Robotics"

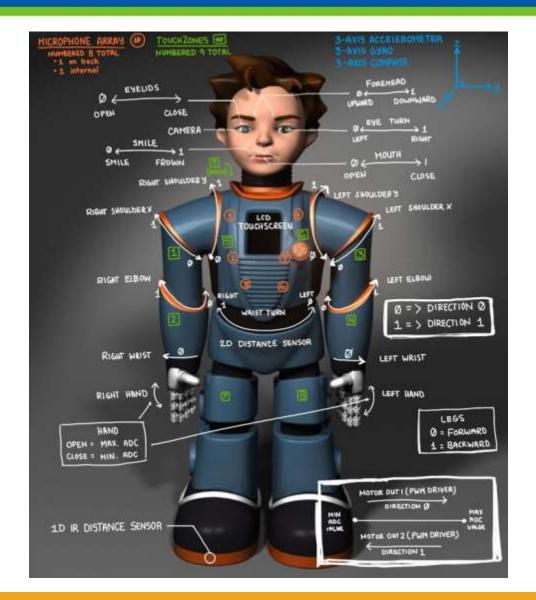
- an extension of humankind. RoboKind.

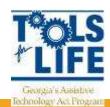




Robo Kind Features



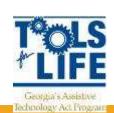


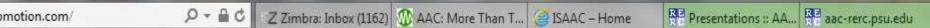


Meet NAO!









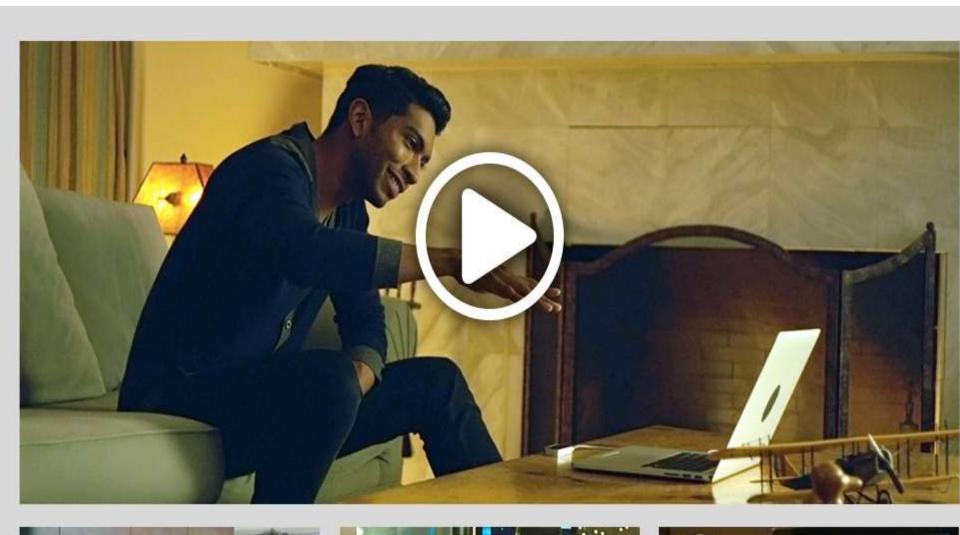
Tools Help



OUR DEVICE

APPS DEVS

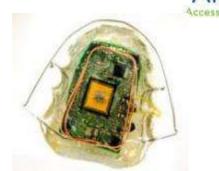
BLOG SETUP SUPPORT BUY STAY INFORMED ▼

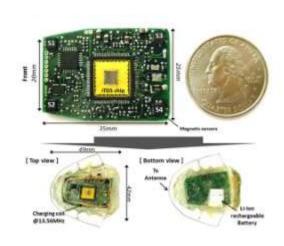


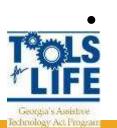
Tongue Drive System

AMAC
Accessibility for All

- Wireless device that enables people with high-level spinal cord injuries to operate a computer and maneuver an electrically powered wheelchair simply by moving their tongues
- dental retainer embedded with sensors
- detect movement of a tiny magnet attached to the tongue
- Testing with iPods and iPhones
- GA Tech
 - Shepherd Center and Rehab Institute of Chicago

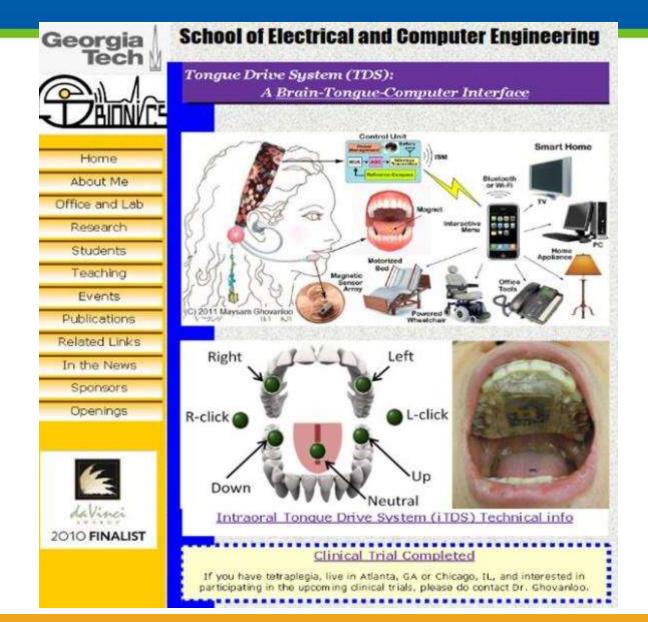






GT Tongue Drive System







Nod by Nod, Inc





https://hellonod.com/

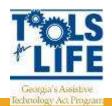
- Controls devices remotely
- Change presentation slides
- Type notes
- Environmental Control Units
- \$149, Early 2015

Amazon Echo





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



Mealtime Partner Feeder



- Variety of mounts
- Battery operated
- Control amount of food
- Control pause time between spoonful
- Adjustability of the spoon







Xpadder



- Xpadder is a free program for Windows that allows you to configure the inputs on most videogame controller any way that you like.
- You can have media controls assigned to different buttons so you can easily pause or control volume.



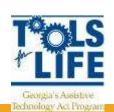
The mouse as well as the keyboard are easily emulated on the controller as well.

MOGAnywhere



- Enables you to play video games on your Apple or Android phone.
- Great for gamers with limited mobility
- \$29.99 to \$99.99

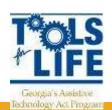




Playstation 4 Media Console



- The PS4 isn't just a gaming console. It is a multimedia center.
 - –Apps
 - Internet Browser
 - Social Network
 - Voice Control
 - Controller Input vs Keyboard and Mouse





Telepresence Robots

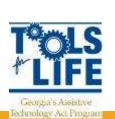
VGo Telepresence Robot



- Enables a person to replicate themself in a distant location and have the freedom to move around as if they were physically there
- Reduces travel costs
- School
- Hospital
- Work from home







Solutions

- Overview
- Products and Services
- Benefits
- Applications
 - Healthcare
 - Large Enterprise
 - Manufacturing
 - Education
 - SMB

Quick Links

Request Info Drive a VGo Latest VGo News Download VGo App

People with Disabilities in the Work Place

Sector. Business



VGo increases productivity and effectiveness while lowering costs by enabling a person to get to a location instantly and easily. VGo is not designed as a replacement for in-person interaction but rather as the next best alternative to "being" in the workplace. VGo also eliminates the deficiencies associated with other video solutions that are locked to a TV or computer monitor by providing 100% remote controlled mobility.

| delete that |

In addition to "being" at work from home, VGo can help people who can get to the workplace, but who cannot practically move about the facility or campus. A VGo can be used to enable a person to move around in one part of the facility while they are physically in another.

The benefits of using VGo in the workplace include

- · Getting to places previously inaccessible increases opportunities
- · Freedom of movement increases personal interaction with others
- · Quality of life improvements by expanding the work and social environments
- Costs can be reduced by lowering or eliminating select transportation expenses, and by communications and speeding decision making

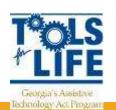


Kubi





- Dock your tablet for remote pan and tilt controls
- See and interact with people during a conference call
- Use any Video Client: Skype, FaceTime, Google Hangout, etc.
- Cloud Control



Beam for Instant Communication



Romo







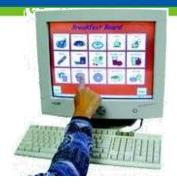


Computer and Switch Access

Computer Access





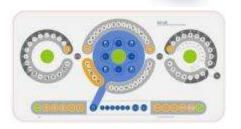




















Environmental Controls - Vera





HOME

PRODUCTS

APPS

ABOUT US

SUPPORT

CONTROL

How it Works >

VeraLite

Smart Home Controller

Home / Controllers / VeraLite



Features & Specs



Warranty & Support

YOUR NEW ASSISTANT

HOME CONTROL DOESN'T HAVE TO BE COMPLICATED OR EXPENSIVE, SO WE CAME UP WITH THE VERALITE SMART. CONTROLLER WHICH IS SIMPLE AND INEXPENSIVE IT MAY BE SMALL, BUT IT'S CAPABLE OF BIG THINGS!

- Easily manages up to 70 devices
- Plug and play with your Internet connection
- Controls over 750 smart products of all kinds
- Custom text and email alerts for any situation.



Veralute gives you easy control over lights, cameras, thermostats, door locks alarm systems and more. Plus you easily can add intelligence to almost anything electronic in your home, and VeraLite can control them too. All the smart home benefits you've been looking for are right here in this easy, inexpensive add-on to your home network.



AN AMAZING AMOUNT OF SMART TECHNOLOGY THAT FITS IN THE PALM OF YOUR HAND.

Veracite gives you easy control over lights, cameras, thermostats, cloor locks. alarm systems and more.

ONLY \$179.95

Tasker





Tasker is a phone automation application that allows you to really unleash your android device's capabilities.

Tasker in a nutshell is a program that tells your device "When this happens, do this!"

- "When something is plugged into the headphone jack, open my music app"
- "When I open the navigation app, turn GPS on"
- "When my phone is connected to this cell tower, turn on wifi and connect to my home wifi"



Castle OS and Castle Hub

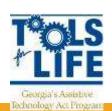


- Chris Ciccitelli has been a fan of Star Trek and was fascinated by the idea of a computer listening to you and taking any action requested. Sometimes it was just retrieving information, other times it controlled different ship functions.
- Chris worked for years creating a system for home automation/control that emulated the computer on Star Trek.
- Castle OS and Castle Hub are able to control all other EC devices regardless of what protocol it uses.
- This system operates using the microphone array in the Kinect camera to listen to you from anywhere in the room.

Samsung Gear Live

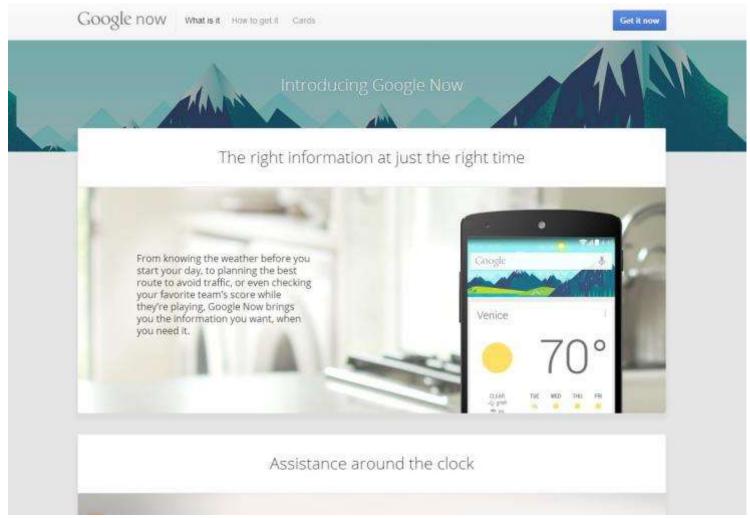


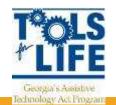
- One of the first generation of Android Wear Watches.
- Android Wear is a version of Android made specifically for wearable technology
- Android Wear allows you to access all the same capabilities your phone provides, conveniently located on your wrist.
 - Voice Recognition
 - Notifications
 - Fitness and health monitors



Google Now







Apps,
Mobile Technology
and the
TFL AppFinder



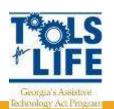
Know Your Tablets!

Consider Accessibility









TFL AppFinder





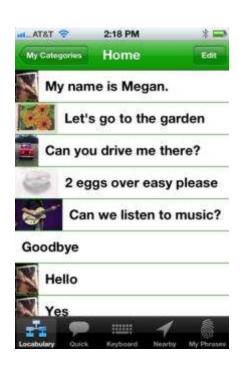
Search by:

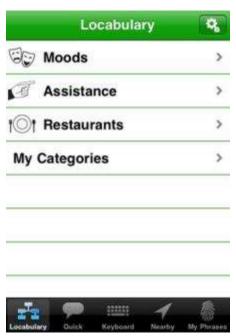
- ✓ App Name
- ✓ Categories
 - Book
 - Education
 - Environmental Adaptations
 - Hearing
 - Cognition, Learning,
 Developmental
 - Navigation
 - Personal Care and Safety
 - Productivity
 - Communication
 - Therapeutic Aids
 - Vision



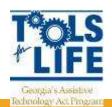
Locabulary







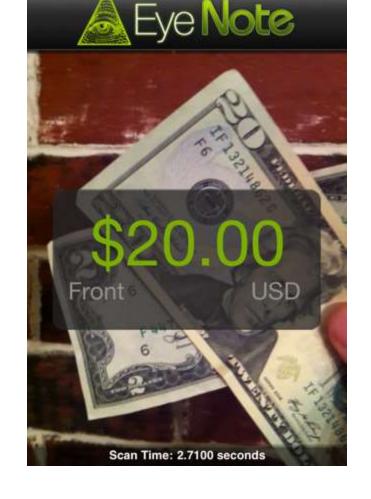
- Uses GPS to track user location and suggests appropriate vocabulary based on location
 - ie: McDonald';s starbucks
- A keyboard to type for text-tospeech
- User can tag their own locations and create vocabulary for each location
- Lite version Free; Pro version \$130



EyeNote



- Uses built in camera to scan dollar bills
- Speaks out loud
 - Distinguished btw front and back of bill
- Free
- Supports English and Spanish
- Privacy mode
 - Pulses or beeps





BrailleTouch



- Prototype app for touchscreen mobile devices
- FREE Open Source app
- 32 words per minute with 92% accuracy with the prototype app for the iPhone
- Use of the six-key configuration so that the keyboard fits on the screen and users keep their fingers in a relatively fixed position while texting
 - **GA Tech Researchers**

- Type with screen facing away
- Braille like typing

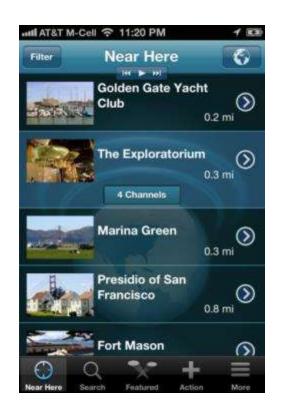


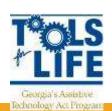


HearPlanet (Lite): Audio Guide to the World



- Speaks aloud what is around out you
- Learn about monuments. Historic sites, etc.
- FREE
- Upgrade to a paid version

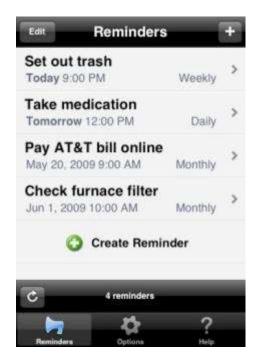




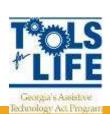
TextMinder



- Create SMS text reminders
- Specify exact date and time; choose a repeat schedule for each reminder
- Multiple reminders can remain in popup notification summary, even when followed by other messages (push notifications only show your most recent alert)
- Unread reminders show as a number badge on your standard SMS/Messages app, and remain until removed to ensure they are noticed







Cozi



- Free
- You can access from a computer, smartphone or tablet
- Manage a family calendar and set reminders.
 - Add an appointment and it uploads to your Cozi account so everyone can see it.
- Get your grocery shopping lists when you're at the store, even when offline.
- Add a to do list item right when you think of it and have it right there in your pocket to remind yourself.
- Jot down a memory as it happens in the journal.
 - Add a photo from your library to capture the moment.

Add and edit non-repeating calendar appointments, shopping lists, and to do lists

while offline.



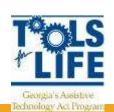


Wunderlist



- List management
- Create recurring to-dos
- Create subtasks
- Set due dates
- Reminders
- Notifications
- Cloud sync
- Email directly
- Collaborate with anyone
- Access on all devices including web
- Free
- https://www.wunderlist.com/en/





Reading Apps



- Learning Ally
 - DAISY
 - Membership required
 - over 75,000 audiobooks, audio textbooks, and other recorded books

- Audible.com
 - Over 100,000 titles
 - Works on both Android and Apple
 - \$7.00-\$22.00 per month



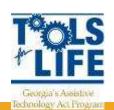
Perfect OCR





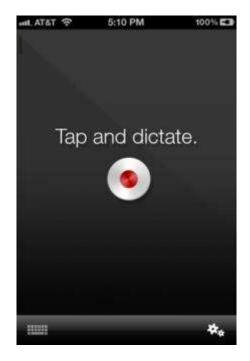


- \$3.99
- Uses the built in camera to scan documents
- Edit, copy, store, email documents
- Upload to online storage (Evernote)
- Does take practice for picture



Dragon Dictation

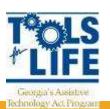




Hi John call me when you get this e-mail. I'm running a little bit late.



- Voice Recognition
- Free
- Dictate notes, emails,
 Twitter, and Facebook
- Supports many languages
- Cut, Copy, Paste
- Android
 - Dragon Go!
 - Dragon Hands Free Assistant



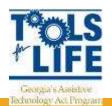
Say it & Mail it Pro





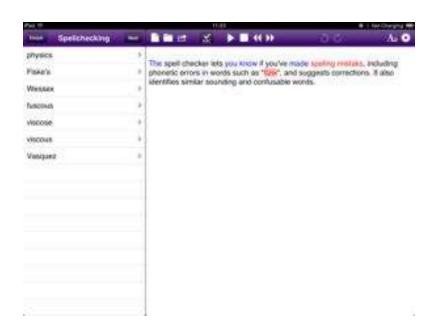


- Email voice memos
- Attach pictures
- Set preference to start recording as soon as app opens
- Add location

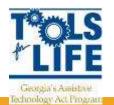


iWriteRead





- TextHelp
- No internet needed to use
- Text-to-speech
- Word Prediction
- Phonetic Spell Checker
- Homophone and Confusables Checker
- Dictionary
- Picture Dictionary
- Customizable Background and Text Colors
- Choice of Voices and Fonts
- Importing and Sharing documents

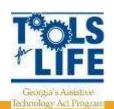


MyMedSchedule



- Keep track of medication
- Reminders
- Refill Reminders
- Healthcare Provider Profiles
- Insurance Information
- Allergies
- Works across Platforms
- Free
- www.mymedschedule.com

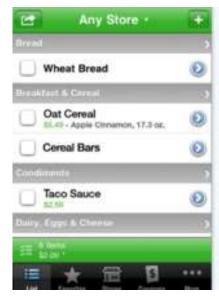




Grocery IQ



- Pictorial shopping list
- Customize different lists for different users using pictures on camera roll
- Add your own items and categories
- Assign item prices
- Assign item locations (for example, aisle numbers)
- Several accessibility options
 - text-to-speech
 - uses large easy-to-see images
 - item prices automatically totaled







\$4.99

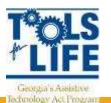
ICE - In Case of Emergency



- Emergency contact list
- Central place for you to record any medications
- List allergies or medical conditions
- Pre-loaded medical information to choose from
- Free





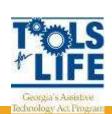


SkyGrid



- Personalize news events by categories
- Simple interface
- Free
- www.skygrid.com



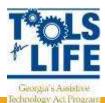


iZen Garden





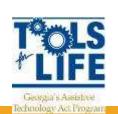
- Choose from 100s of objects, plants and creatures to place in your garden
- Rake the sand and share your creations
- Helps you to center your mind, relax your psyche and relieve your stress







Our Question to You: What have You Learned today?



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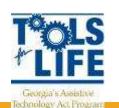
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Disclaimer

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