



Policy to Practice: Assistive Technology and Aging

Rob Groenendaal | Assistive Technology Program Manager Center for Integrated Programs | Office of Consumer Access and Self-Determination Administration for Community Living | US Department of Health and Human Services

Carolyn Phillips | Director & PI | Tools for Life With contributions from TFL Team

www.gatfl.org

For Handouts: http://www.gatfl.gatech.edu/tflwiki



Agenda



Learn about implementation of effective policies and recent assistive technology (AT) developments that have produced positive life-changing results for individuals as they age. AT Act Programs have created models of quality AT services throughout the U.S. and are assisting seniors in living, learning, working and playing. This presentation will focus on putting knowledge into action, sharing models and exploring AT trends to watch.

Objectives

- 1. Participants will be able to describe 3 effective AT service Models for seniors.
- 2. Participants will be able to define assistive technology and assistive technology services.
- 3. Participants will be able to identify their AT Act Program.
- 4. Participants will be able to describe 3 effective AT solutions for aging.
- 5. Participants will be able to differentiate between 2 tablets to gain an understanding of the apps that will run on them.

Outcomes

- 1) Selection and creation of over 25 AT Toolkits for Aging in 5 states.
- 2) Development of an AT decision tree algorithm for 15 different categories related to aging in place.
- 3) Assisting in considering AT solutions in over 150 nursing home transitions.



HOME ABOUT AT3 AT ACT GRANTEES EXPLORE AT EVENTS CONTACT US

Welcome

Welcome to the new Assistive Technology Act Technical Assistance and Training (AT3) Center web site. Please be patient as we build and grow this website to support quality implementation of the Assistive Technology Act. The AT3 Center is responsible for providing training and technical assistance for all AT Act Section 4 grantees, known as State AT Programs, including supporting all authorized state level and state leadership activities. A separate technical assistance provider, the National Disability Rights Network, is responsible for providing training and technical assistance for the AT Act Section 5 grantees as part of their overall technical assistance to Protection and Advocacy agencies. The AT3 Center will also establish and curate a national public AT internet resource portal to make general AT information available to the public and other stakeholders.

The AT3 Center is a sponsored project of the Association of Assistive Technology Act Programs (ATAP) operated under a five year grant (2016 – 2021) from the Administration for Community Living ACL, U.S. Department of Health and Human Services.

AT3 News

For initial communication and information dissemination, the AT3 Center has established the About AT listserv for all interested individuals. Please click on the following link to request to be added to this listserv - About AT listserv

Additional Community of Practice (CoP) groups with associated listservs will be established in the near future to

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.







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

TFL's Solution Website







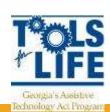


Join us for Webinars and Visit our Archives!



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



TFL AT Demo Lab

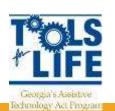


- Tablets
- Vision & Hearing
- DME
- Communication
- Games
- Software
- Switches
- Keyboards
- More!











AT Acquisition!

- Tools for Life endeavors to break down the barriers which prevent individuals with disabilities, their families, and service providers from acquiring and effectively using Assistive Technologies to gain greater independence.
- To insure that AT products are available to Georgians with disabilities
- Eliminate Funding Barriers









Tools for Life & Aging Community: Transformational Partnership

Direct Service:

- AT Evaluations
- AT Demonstration
- AT Lending Library "Try Before You Buy"
- AT Reuse Bridging Gaps for smoother transitions
- Lead to AT Toolkits in every AAA and ILC and more AT Labs throughout Georgia

State Leadership:

- Providing AT training to AAA, ADRC and MFP Options Counselors to build awareness and knowledge
- Providing Technical Assistance Policy for AT Consideration
- Providing Technical Assistance Ensuring Quality AT Services throughout Georgia
- Development of National AT Decision Tree/Algorithm Tool



Assistive Technology Research & Developments

Training Objectives:

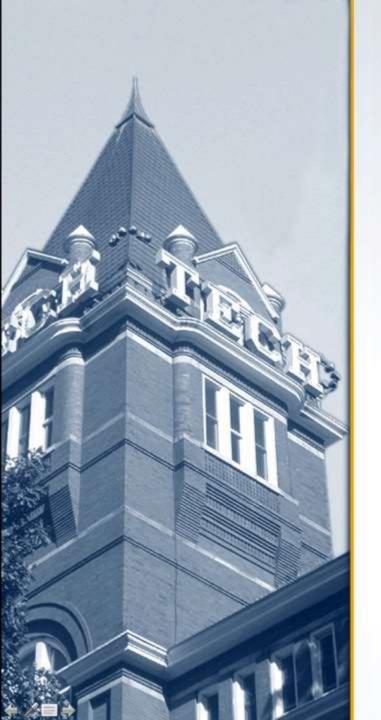
- Bring together academics, researchers, industry, practitioners, & consumers
- Provide opportunities for ongoing collaboration between these groups
- Educate on what is new and what is on the horizon











Design, Technology & Aging From Problem to Product

Brian D. Jones
Director, Aware Home
Senior Research Engineer, Interactive
Media Technology Center, RERC
TechSAge, Wireless RERC

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In the Shadows - Mainstream



- Tim Cook, Apple Chief Executive
- 2013 speech at Auburn University
- ...people with disabilities are "in a struggle to have their human dignity acknowledged."
- "They're frequently left in the shadows of technological advancements that are a source of empowerment and attainment for others."

Why Assistive Technology?



- For a person without a disability, technology makes things easier....
- For a person with a disability, technology makes things possible.
- TIP: USE AT. I have yet to meet a successful student with disabilities who doesn't use Any AT.





TFL and Division of Aging Services Growing Relationship

- Since 1991, TFL has been developing relationships with Division of Aging Services (DAS). AAAs and the ADRC's throughout the state of Georgia.
- This includes participating on various advisory boards and committees committed to ensuring assistance and resources for individuals with disabilities and/or naturally aging process.
- DAS representatives actively participate on the TFL Advisory Council.

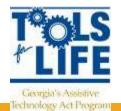




AT and DAS – Expanding AT Access

- Lead to AT Tool Kits in all AAA /ADRCs
 - AT from all areas to support people with disabilities and the natural aging process
- AT Solution Lab at MFP and Aging-related Conferences
- AT Solution Lab at the Coastal Area Agency on Aging Georgia
 - Coastal AAA/ADRC Won the 2016 AIRS Distinguished Service Award for their work with the AT Lab.
 - Presented at the Awards Luncheon at the 2016 AIRS Conference in St. Louis.
 - AIRS is the premier professional membership association for community I&A with over 5000+ national and international members







AT and DAS - Success!

- AT Evaluation Pilot program began August 2015:
- Proof of Concept AT is a Key Factor to Success
- Started in 2 Regions:
 - Atlanta Region (Urban)
 - Southeastern Georgia Region (Rural)
- TFL Customized AT Evaluation Process for MFP:
 - In home and/or in nursing home
 - AT Research support to determine appropriate AT to meet needs of individuals
 - AT Report/Roadmap extensive written report with AT recommendations and resources
 - Follow-up and follow-along consultation
- Building on these AT Services for DAS:
 - AT Demonstration
 - AT Lending Library "Try Before You Buy"
 - AT Reuse Bridging Gaps for smoother transitions



Success – Expanding to All Regions in Georgia in 2017



Meet Lisa!





Need for AT Knowledge Transfer

- A Lot of Gaps in AT awareness and knowledge
- AT is undeniably linked to Successful Transitions and Independent Living
- Need to ask more questions Some "don't know what they don't know..."
- Many Red "Flags"!
- Using AT to turn RED "flags" to Green "Flags"



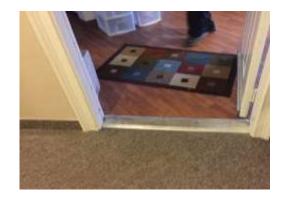


Examples of Some "Red Flags"

Examples of many common hazards in the home







DME never used





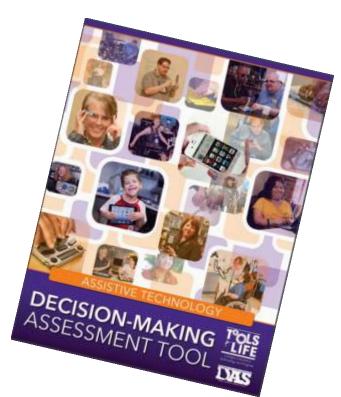
Medication errors





Development of National AT Decision Tool/Algorithms

- Real-time Tool to Share What Works
 - Learning from each other
 - AT solutions, strategies, resources
 - When to call in a professional
- Smart-Sourcing Approach
- Hosted 2 Workshops Georgia
- Hosted National Workshop at ATIA in 2017
- Growing into Specific areas Dementia, Mental Health, etc.





Information and Communication Technology (ICT) Accessibility





https://www.edx.org/course/information-communication-technology-ict-ict100x

Contributors















Assistive Technology Module Overview

This module will explore assistive technology (AT) as it relates to accessible electronic information and communication technologies (ICT). This module will also provide participants/students with the tools needed to identify challenges present in ICT environments, and will provide solutions that can assist with improving accessibility and promote inclusion.



What Works and What is New In AT and the AT Community:

Were we Are and Perhaps,
 Where We Are Going

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.

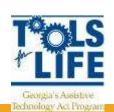
Anne Lamott



Assistive Technology Matching: Person Centered Approach



- ✓ The Person First
- ✓ Circle of Support Family of Choice
- ✓ Case Managers
- ✓ Technologist
- ✓ Occupational Therapist
- ✓ Speech & Language Pathologist
- ✓ Physical Therapist
- ✓ Engineer



Human Activity Technology (HAAT) Model

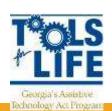
- AMAC
 Accessibility for All
- Human: represents the skills and abilities of the person with a disability
- <u>Activity:</u> a set of tasks to be performed by the person with a disability
- <u>Context</u>: the setting or social, cultural and physical contexts that surround the environment in which the 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



Staying off the "FAST" Track



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





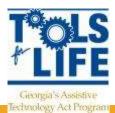




Reminders



- Built-in App
- Organize your reminders
- Siri

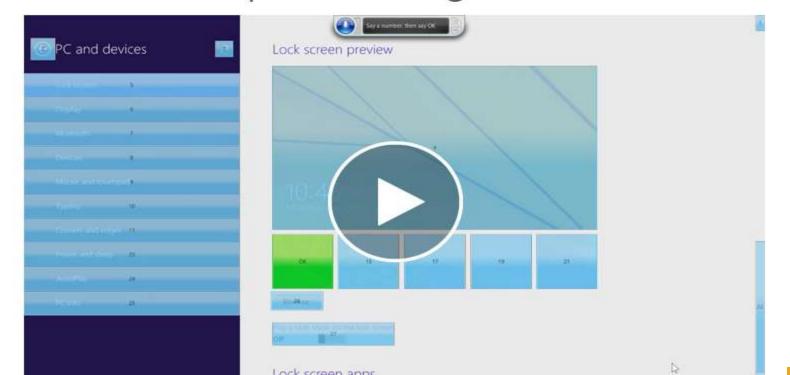




Speech Recognition

Windows	Windows 10	Devices	Apps+games	Downloads	How-to	Great things
	Windows 10 Windows 10 Mobile		Previous versions			

How to use Speech Recognition





Georgia Institute of Technology

Human Factors & Aging Laboratory

We are able to implement various methodologies to address many types of research questions -Tracy Mitzner



Overview

Projects

Opportunities

Publications

People

Photos

News

Links **Contact Us**

Points of Excellence

- Our research advances both science and practice
- We aim to improve quality of life for adults of all ages
- Students graduating from our lab are very successful

Resources

Senior-to-Senior Brochure

Overview of the Human Factors and

Aging Laboratory



Increase/Decrease Font S



Participant Information (F



Older Adults



Younger Adult

News

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

Aware Home at Georgia Tech



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

ools Help



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"Exploring New Ideas with Advanced Social Robotics"

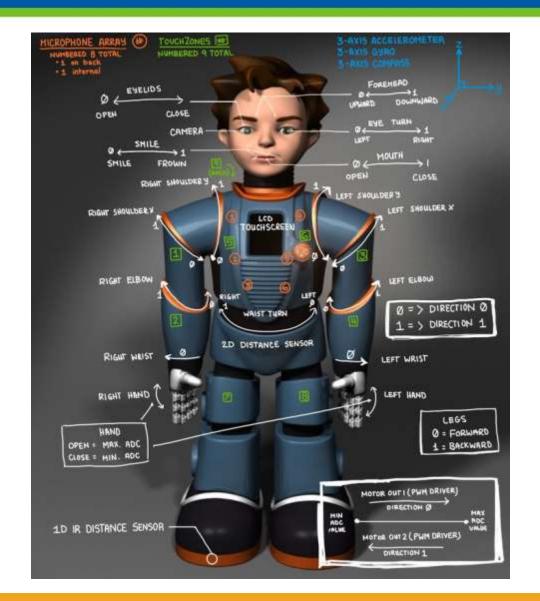
- an extension of humankind. RoboKind.

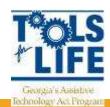




Robo Kind Features



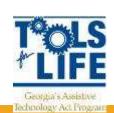




Meet NAO!







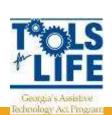
Mealtime Partner Feeder



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

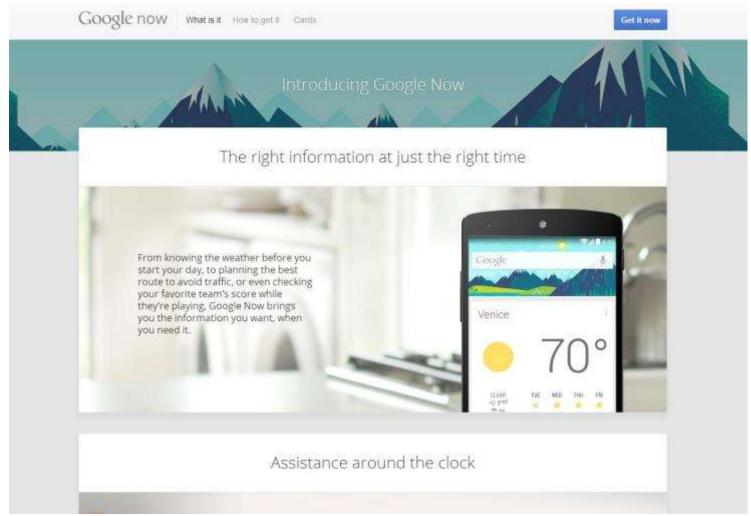


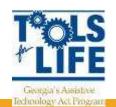




Google Now







Power Fish'n and Trigger Finger

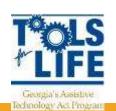


- Electronic power assist fishing reel
- Attaches to a fishing pole
- One finger push

 Straightens out trigger finger so that an individual can shoot





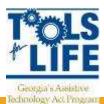


iZen Garden





- 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



Gaming



- FRU
- Yoga inspired
- Problem solving
- 1 or 2 people can play at once





DIY AT



Stress Balls

We used:

- Colorful balloons
- All-purpose flour
- Play Dough

Alternatives:

- Clear or different color balloons
- Sand art sand or course flour



Sensory Bottles

We used:

- Plastic Water Bottles
- Assortment of Glitter
- Tacky Glue





Alternatives:

- Different Types of Water Bottles
- Other types of object
- Thicker solution (ex: glycerin, oil, corn syrup)
- Food Coloring

Reminders

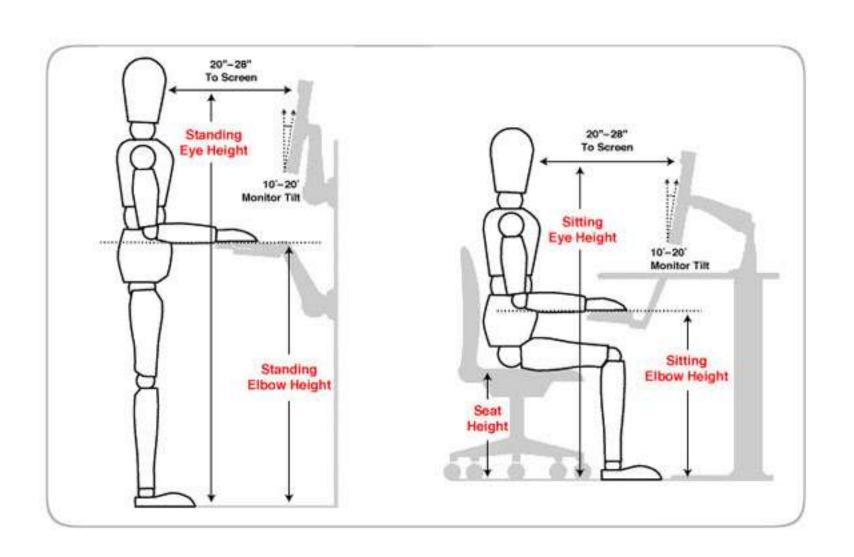






- Built-in App
- Organize your reminders
- Siri







Amazon Echo



Always ready, connected, and fast. Just ask.



- Speech-controlled speaker system
- Voice recognition further distances
- All functions are server side
- Compatible with many EC Brands
- \$179.99



Philips Hue Light Bulbs

- Wifi Connected
- Dimmable
- Displays Over 16
 Million Colors
- Compatible with Amazon Echo
- Color Starter Kit \$174.99





WAZE

FREE!

 Waze is the world's largest communitybased traffic and navigation app. Join drivers in your area who share real-time traffic & road info to save time, gas money, and improve daily commuting for all.

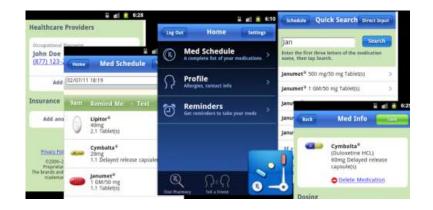






MyMedSchedule

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











Breathe2Relax

- Portable stress management tool
- Detailed information on the effects of stress on the body
- Instructions and practice exercises to learn the stress management skill called diaphragmatic breathing





Audible.com

- Digital audiobooks
- Read by Hollywood stars, authors, and professional narrators
- Listen anywhere
- Over 180,000 titles
- Membership



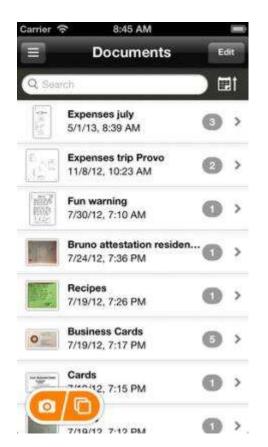






Genius Scan

- Scan documents or handwritten notes
- Email the scans as JPEG or PDF
- Free
- Genius Scan Plus (\$2.99)
 allows upload to
 Dropbox, Skydrive or
 Evernote







Key Ring App

FREE!

iOS and Android

 All those loyalty cards are hard to keep track of. Key Ring puts all your cards on your phone, so they're there when you need them. Scan and store grocery cards, gym cards, library cards, gift cards... you name it. Loyalty cards scan straight from your phone at the checkout counter, saving you money instantly







Grocery IQ





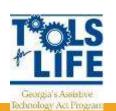
- Pictorial shopping list
- Customize different lists for different users using pictures on camera roll
- Add your own items and categories
- Assign item prices
- Assign item locations (for example, aisle numbers)
- Several accessibility options
 - text-to-speech
 - uses large easy-to-see images
 - item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

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



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





SOLULIONS

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

Quick Links

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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.

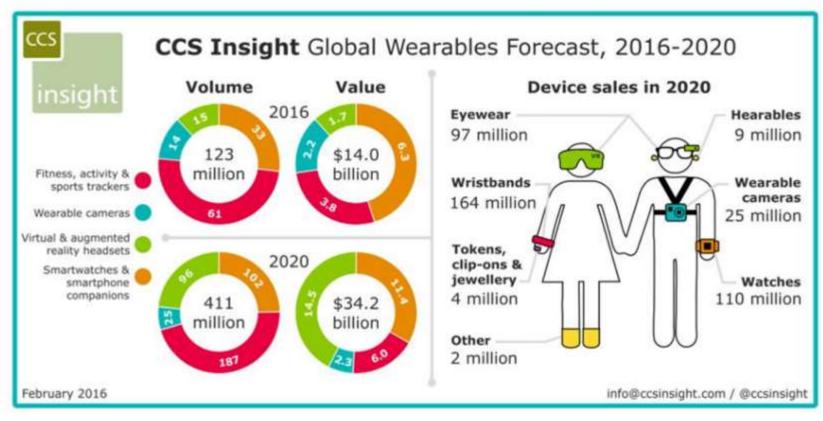
The benefits of using VGo in the workplace include

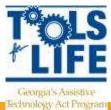
- · Getting to places previously inaccessible increases opportunities
- · Freedom of movement increases personal interaction with others
- · Quality of life improvements by expanding the work and social environments
- Costs can be reduced by lowering or eliminating select transportation expenses, and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



Wearables Forecast









Hello Guest | Login

Home

Order

Q&A

In the News

About

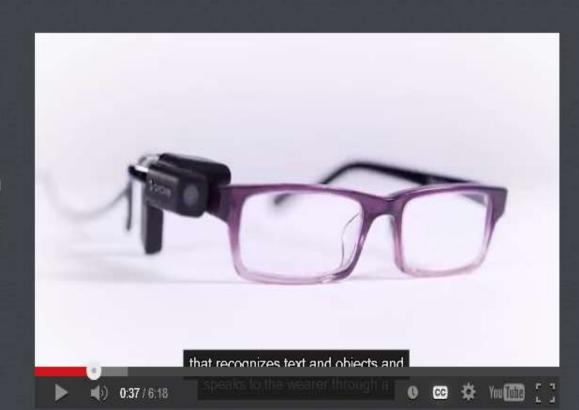
Contact

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.





Lechal

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





Lechal's haptic feedback, via simple vibrations, is with you every step of the way, giving you detailed **route guidance at every turn**. It even works offline! Which means you can wander off with **no internet or data connectivity** or get off a plane in a new country and Lechal will work, always in all ways.







FitBit

- Fitness tracker
- Variety of styles and colors
- Track Activity
- Track Food
- Track Sleep
- Track Heart rate
- Works with other App
- New Smartwatch







Apple Watch

- Receive Calls and texts
 - "Inner Circle"
- Apps
- Can be used for fitness
 - Heart Rate Monitor
 - GPS
 - Accelerometer
- "Hey Siri"
- Haptic feed back
- Calendar
- \$499





B-Calm

- "acoustic shield", allowing the individual to have control of the sound environment
- helps reduce off task behaviors and irritability
- disturbing noises are blocked and replaced with familiar and soothing sounds





T. Jacket

- Wearable technology vest
- Provides customizable deep touch pressure
 - Uses adjustable air pressure compression controlled via smartphone app
 - http://www.mytjacket.com/







Reveal

 Measures and tracks anxiety to help you better understand behavior and prevent

meltdowns.







GlassOuse

- Helps people control electronics without using their hands.
- Based on your head movements, it moves the cursor onscreen. You bite on a blue extension to click, and it can go a week without charging."
- https://





Lumo Lift

- Lumo for back and head/shoulders
- Sends gentle vibration alert when posture needs to be corrected







CellHandle

- Wearable tech for all phones and cases
- Great for larger phones
- Safe way to hold and use phones
- Solves dexterity issues Rotates;

adjustable; detail



3D Printers

- Coming down in price
- Creating assistive technology for lower cost
- In classrooms
- Ability to feel how something looks
- Prosthetics
- Medical Advances







Cicret Bracelet

- Turns your arm into a touchscreen
- Works on every skin color
- iPhone and Android
- Phone screen mirroring
- Removeable battery
- Water resistant
- Pre-Orders begins in 2017
- Cicret Bracelet
- https://cicret.com/wordpress/



MINDRDR FOR GOOGLE GLASS LETS YOU TAKE AND SHARE PICTURES JUST BY THINKING

NEUROGADGET-JULY 11, 2014



























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1,949 people like Neurogadget.com.



Fecebook social plugin







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boston com

NEWS WEATHER SPORTS ENTERTAINMENT BUSINESS LIFESTYLE HEALTH TRAVEL CARS JOBS REALESTATE CIRCULARS



HEALTH





MIT Finger Device Reads to the Blind in Real Time



By RODRIQUE NGOWI Associated Press

JULY 8, 2014 1:24 AM

In this Thursday, June 26, 2014 photo, a model wears a FingerReader ring at the Massachusetts institute of Technology's Media Lab in Cambridge, Mass. Researchers designed and developed the instrument, which enables people with visual disabilities to read text printed on pages or electronic devices. (AP Photo Stephan Savola)





My Question to You: What have You Learned today?



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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.

