Exploring Assistive Technology Solutions for ADHD: What Works!

Community Resource Center
Adult ADDvocacy
Tuesday, March 9, 2017

Martha Rust and Sam Peters – Tools for Life
With contributions from the TFL Team
www.gatfl.gatech.edu
For Handouts: http://www.gatfl.gatech.edu/tflwiki

www.amacusg.org

Welcome to the Assistive Technology Revolution!

The world around us is evolving at an astounding rate. Assistive Technology developments have been foundational in this evolution and a catalyst for producing positive life-changing results for individuals with disabilities.

This session will take a closer look at:

- AMAC | Tools for Life – AT Act Program
- Advocacy & Knowing Your Rights
- Making and LD Evaluation Your Action Plan
- Understanding Assistive Technology
- Using “Low/Light Tech” to inform “Mid/High Tech Solutions”
- 5 Trends to Watch
- where we are and perhaps, where we are going.

…all in about 60 minutes!

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

AMAC

AMAC Accessibility is a social change organization on a mission to create affordable services for governmental, private, and non-profit organizations working with individuals with disabilities. Services include E-text, braille, captioning, assistive technology, office management software, and consulting.

Georgia's Assistive Technology Act Program

Accessibility Made Smart

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

The TFL Network is Growing!

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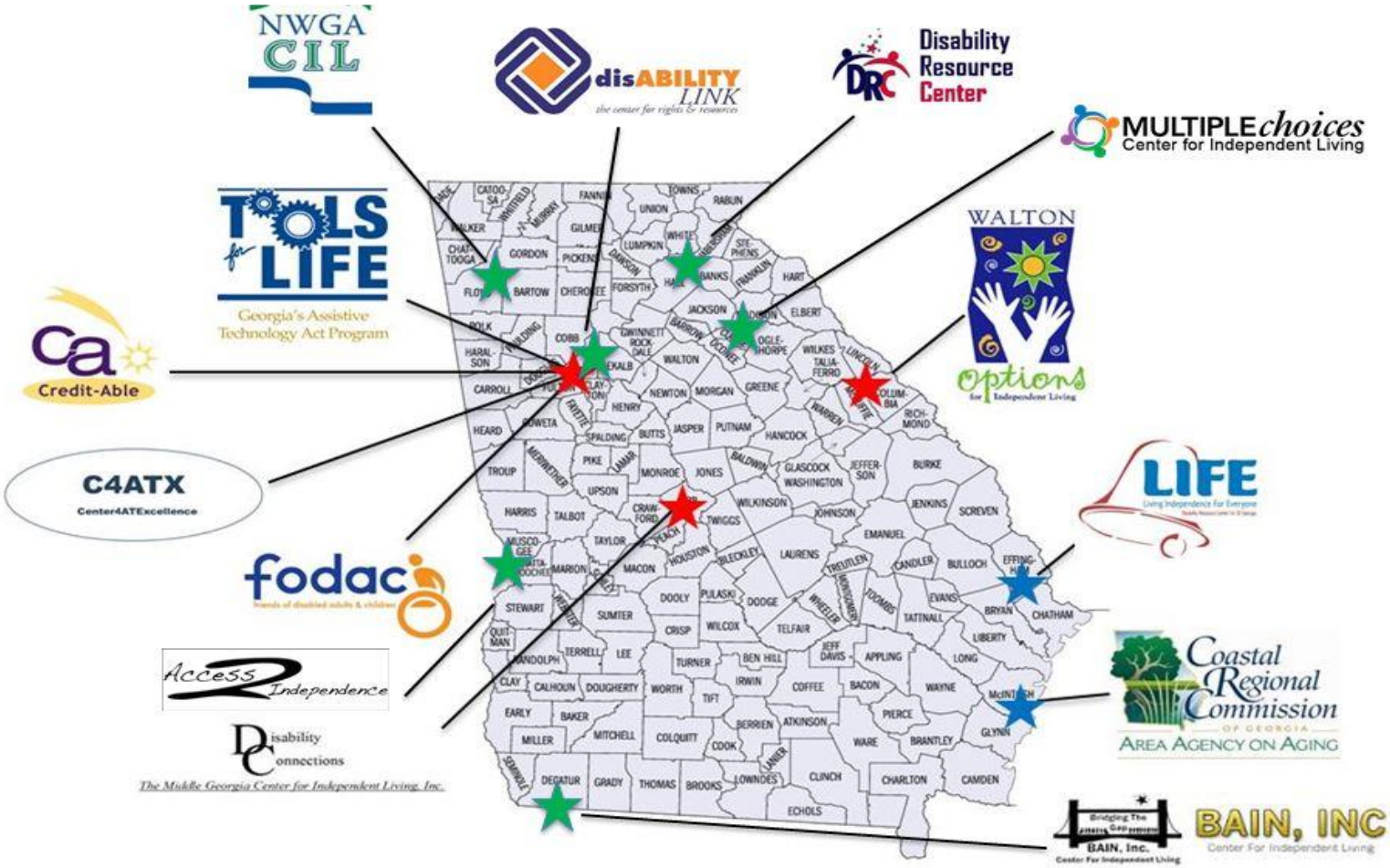
Accessibility for All



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What is Assistive Technology?

- Assistive Technology (AT) is any item or piece of equipment that is used to increase, maintain or improve the functional capabilities of individuals with disabilities in all aspects of life, including at school, at work, at home and in the community.
- Assistive Technology ranges from no/low/light tech to high tech devices or equipment.

Defining Universal Design

Universal Design makes things *safer*, *easier, and more convenient* for everyone.

Universal Design involves designing products and spaces so that they can be used by the widest range of people possible.

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 all Georgians with disabilities
  - Eliminate funding barriers

Credit-Able
Making Independence Affordable

ATDepot co-op

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What is Credit-Able?

- Alternative financing program for Georgia
- Low interest, small loans
  - $250 to $10,
  - Interest rate of 2-8%
- Used for:
  - Equipment
  - Software
  - Home modifications
  - Vehicle modifications

Eligibility Criteria

- Be a resident of Georgia

AND

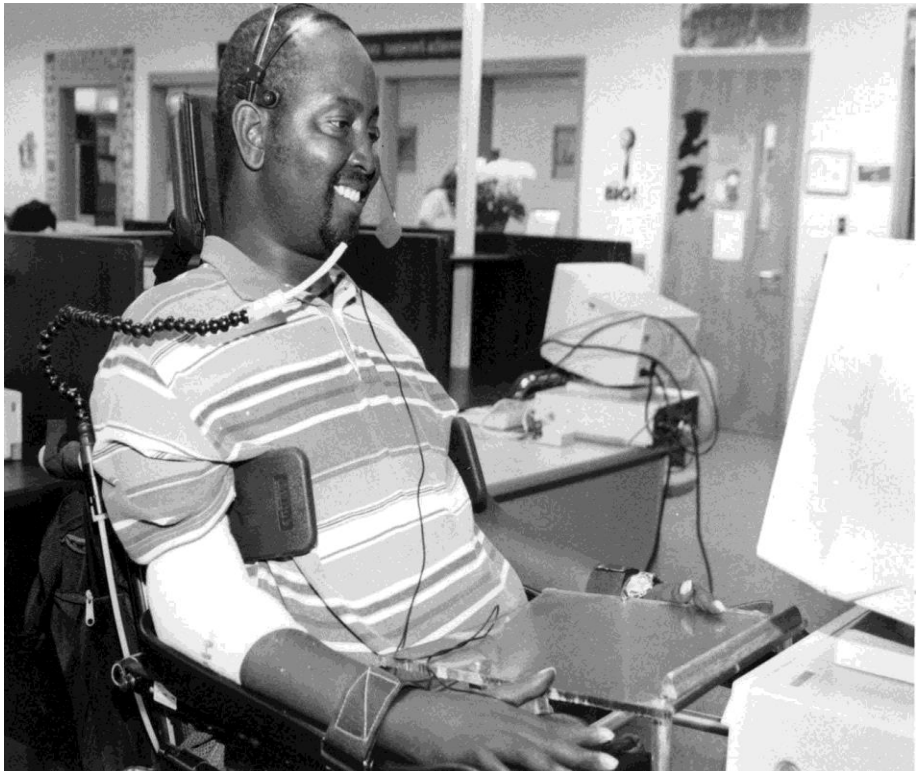
A person with a disability **or** **A family member/guardian of a person with a disability** **or** **An employer of a person with a disability**

AND

Be able to pay back the loan **&** **Using the loan for AT**

Why Assistive Technology?

- For a person without a disability, assistive technology makes life easier.
- For a person with a disability, assistive technology makes life possible.



Tip: USE AT! I have yet to meet a successful student with disabilities who doesn't use any AT.

Future

- Level out the playing field
- The future is contextual
  - GPS apps
  - Social Media
  - Smart watches
  - Advertisements on the internet

Assistive Technology Continuum

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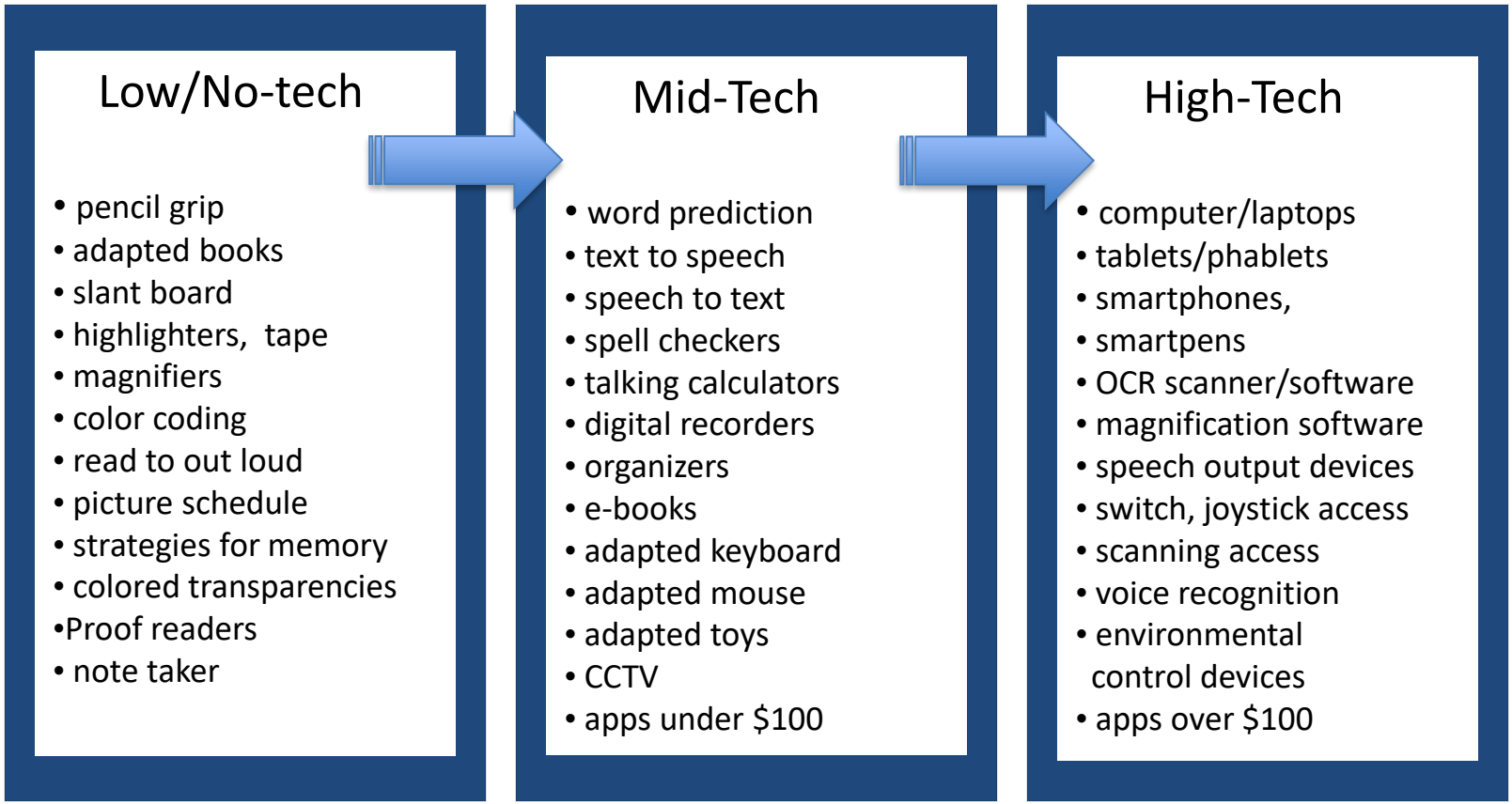
Observations and "Hanging out with Intent"

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



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Low Tech AT Solutions

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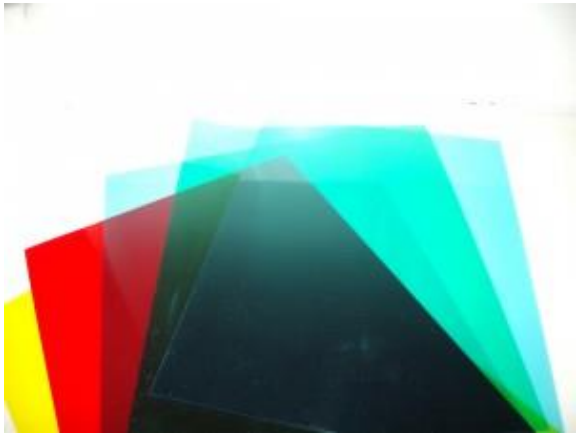

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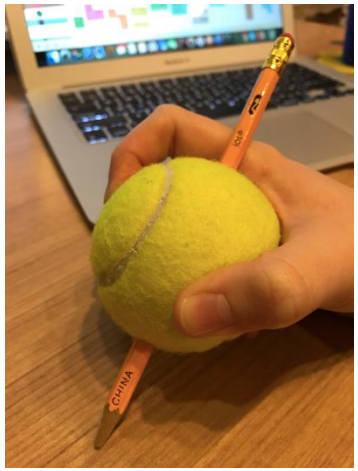
Low Tech AT Solutions for Writing

- Built-in pen and pencil grips
  - Variety
  - Can build you own with a tennis ball or ping-pong ball
- Wide barrel pens and pencils
  - Makes it easier for some people to write due to their contoured shape.
  - There is more surface area to grip which makes it easier to write.



Livescribe

Livescribe is the global leader in the design and manufacturing of smartpens, enabling customers to capture, search and share handwritten notes on the digital devices they use every day.

- Echo
  - Record and playback
  - Save, search, and organize
  - Send and share

- Livescribe 3
  - Uses Bluetooth Smart to send everything you write to your smartphone or tablet
  - Saves written notes in memory

www.livescribe.com/en-us

Considering No/Low Tech to High Tech

Moving from Information to Action

- Evaluations for Learning Disabilities
  - One to one assessment
  - Comprehensive battery of tests
  - Detailed report with recommendations for support in work and/or learning
- What did you learn in your LD evaluation?
- Moving from Information to Action
  - Using your evaluation as an action plan for AT

The F.A.S.T. Track

- Frustration
- Anxiety
- Stress
- Tension

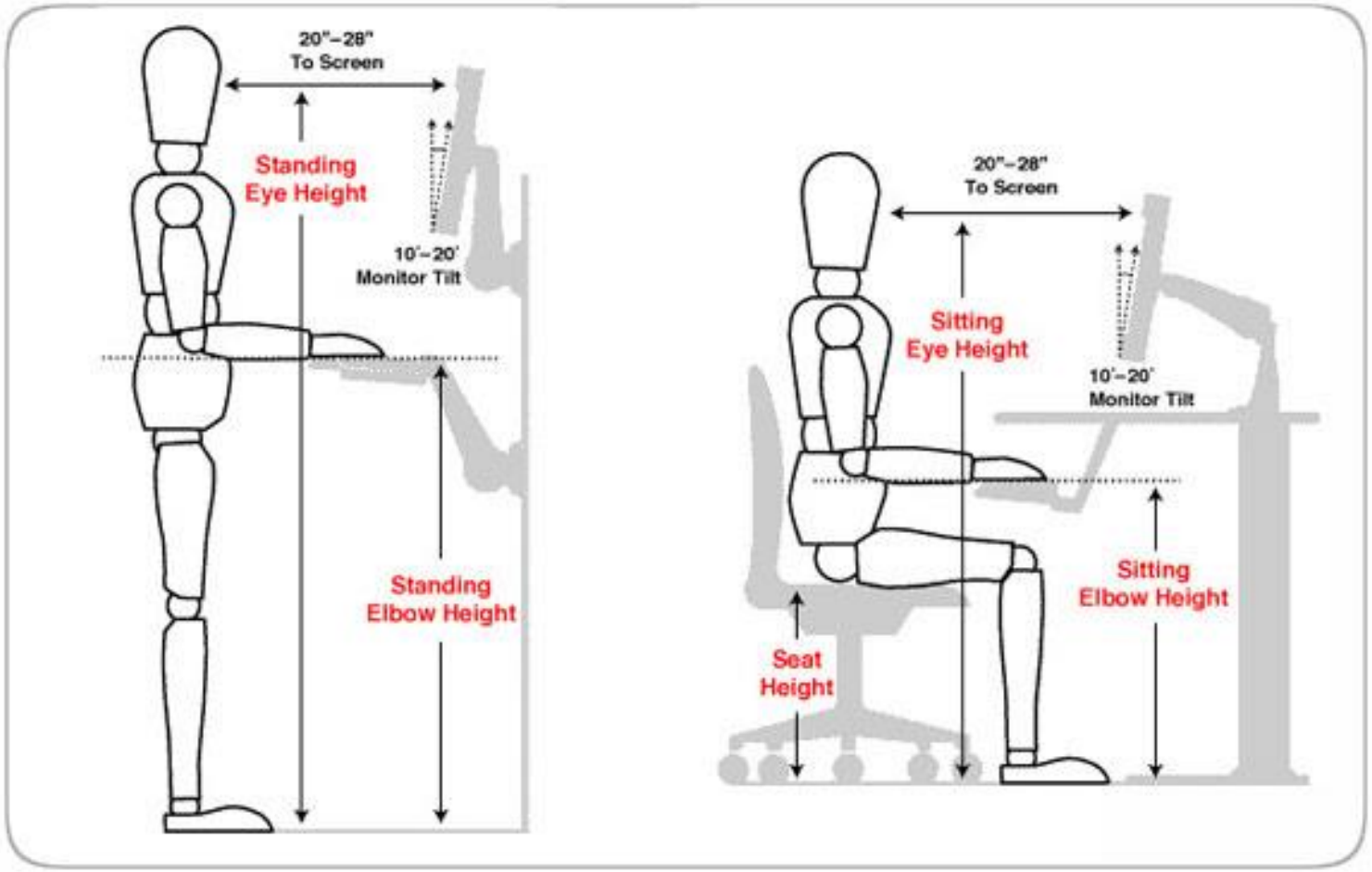
Human Activity Assistive Technology (HAAT) Model

- **Human:** represents the skills and abilities of the person with a disability
- **Activity:** a set of tasks to be performed by the person with a disability
- **Context:** 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

Ergonomics

- Inhibits blood flow
- Creates muscle shortening
- Stresses back muscles and compresses spine
- Can inhibit learning
- Compresses diaphragm
  - Affects breathing
  - Voice quality

Ergonomics in the Classroom



Texthelp

- Text-to-Speech software
- Helps improves reading skills
- Built in text and picture dictionaries
- Study skills highlighter
- Google Chrome app available

Ginger

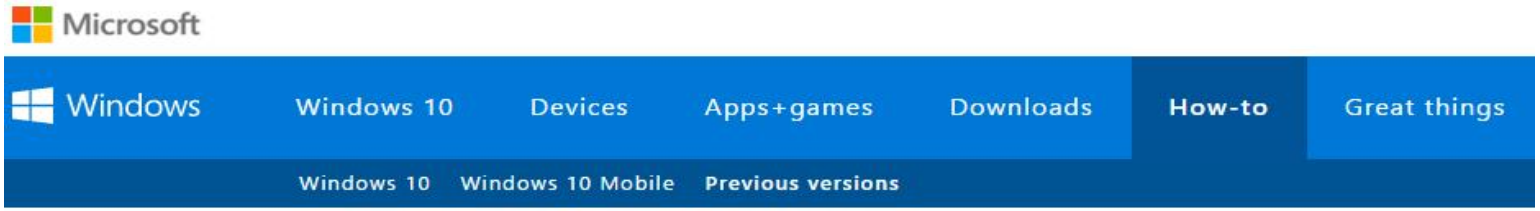
- Online grammar and spell checker
- Can see corrections as you type or use Ginger Proofreader to scan the entire document for mistakes
- Will read corrections out loud
- Has mobile app for Android, iOS, and Windows
- Works inside Microsoft Word and emails
- Text to Speech
  - Read emails and docs
  - Can choose voice and accent
- Ginger Demo

Speech Recognition Software

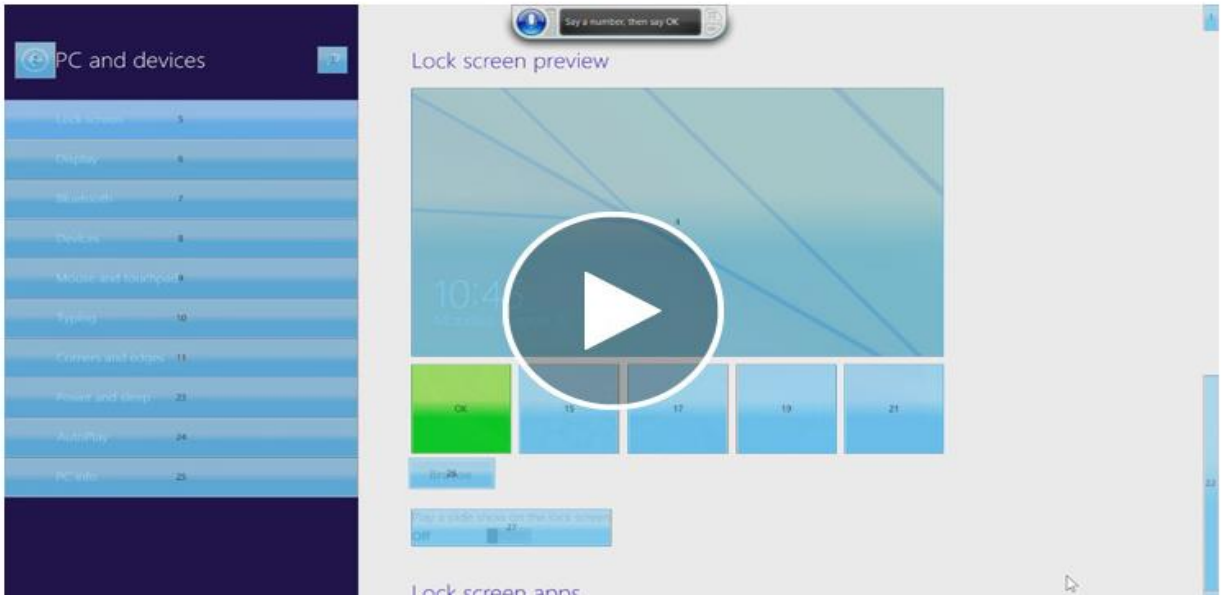
- Turn spoken words into text
- Connect with the timing of your thoughts
- Dictation speed 70 to 100 words per minute

DRAGON NATURALLYSPEAKING

Microsoft Speech Recognition



How to use Speech Recognition



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Accessibility for All

Let's talk about tablets and their features!

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Refurbished Tablets

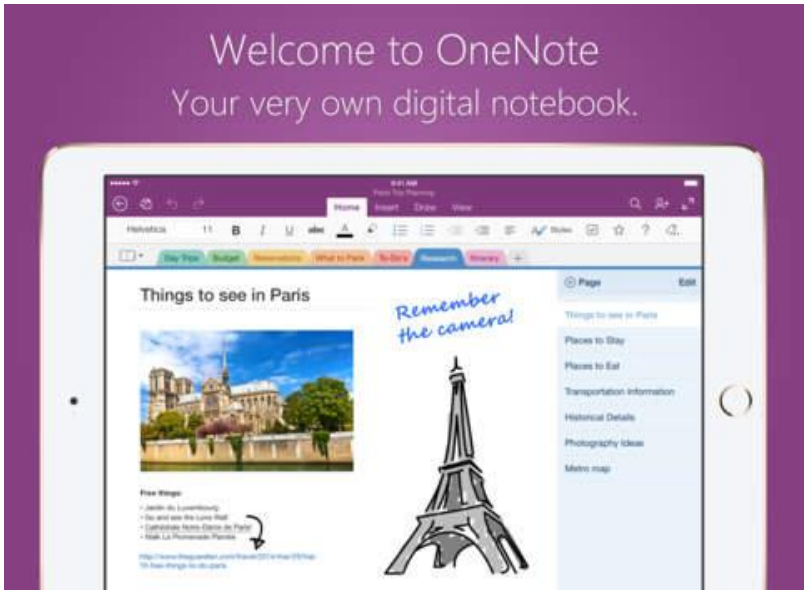
- If you do not need the latest and greatest, consider older models for a discount.
  - Make sure the refurbished tablet has been certified
  - Look for at least a one-year warranty
  - Many places now sell them
    - Apple
    - Best Buy
    - Amazon

Microsoft Surface Pro and Surface Book

- Windows 10
  - New and improved Internet Explorer
    - On-screen writing and highlighting features
  - Moveable tiles
    - Start Menu can be personally organized
  - Built-in accessibility
    - Speech-to-text
    - Narrator
    - Magnifier
    - High contrast
- Slim and has a USB port
- This pressure sensitive cover that doubles as a keyboard

Microsoft OneNote

- Crosses all platforms
- Type, write, or draw with the free form feel of pen and paper
  - Use stylus or finger
- Search and clip from the web to picture ideas
- Brings students together in a collaborative space or can give individual support in private notebooks



Android Tablets

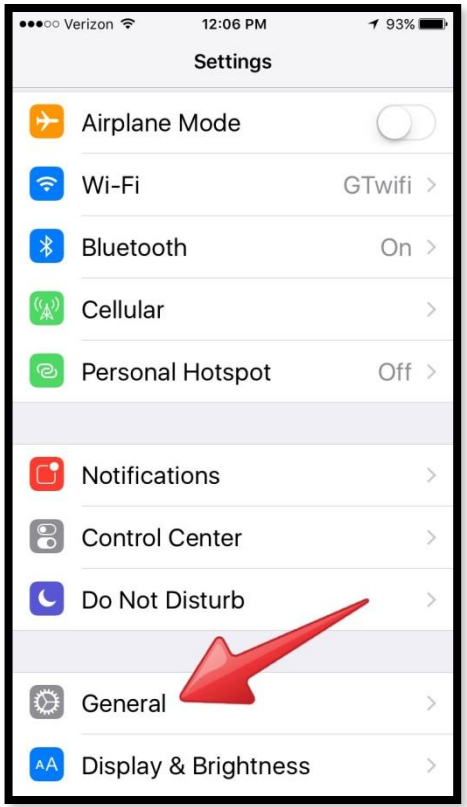
- Many different options for user preference
  - Amazon Fire
  - Samsung Galaxy
  - Lenovo Yoga
  - Asus ZenPad
- Wi-fi compatible
- Some accessibility built in

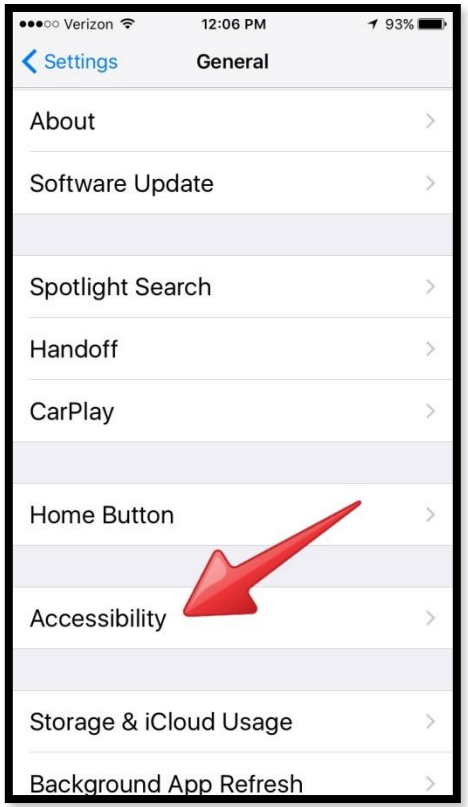
Apple iPads

- Three sizes/varieties
  - iPad Pro
    - 9.7 inches and 12.9 inches
  - iPad Air 2
    - 9.7 inches
  - iPad mini 4
    - 7.9 inches
- iOS 10
- Countless apps
- Organization
- Accessibility
- High quality photos

Built-in Accessibility Features

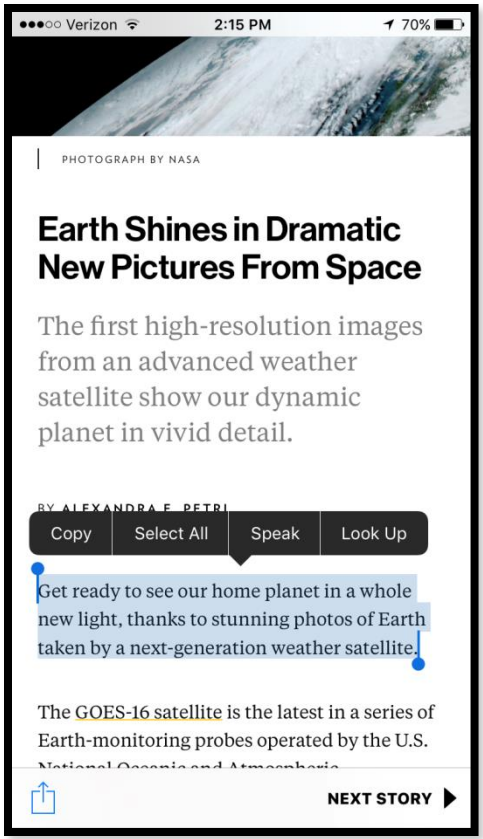
- VoiceOver
- Zoom and Magnifier
- Large and Bold Text
- Invert Colors
- Speak Selection
- Speak Auto Text
- Mono Audio
- Assistive Touch
- Hearing Devices
- Subtitles and Captioning
- Guided Access
- Home-Click Speed
- Switch Access
- Braille Displays





Apple: Read Text Out Loud

- Settings > General > Accessibility > Speech
- Tap the toggle switch on “Speak Selection” to turn on
  - It should move to the right
- When you select any text, a “Speak” option is now available to select
  - This option changes to “Pause” while the text is being spoken
- Can also choose to “Speak Screen” and to highlight as it reads



Tools for Life AppFinder

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Your TFL AppFinder

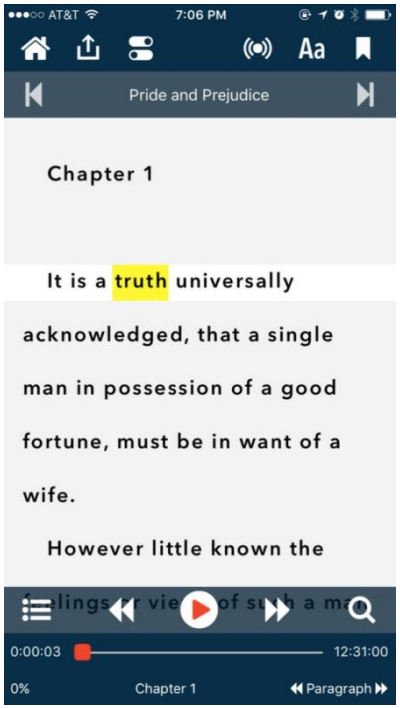
Search by:

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

Voice Dream Reader

- Text-to-Speech
- Highlights as it reads
- Import
  - Bookshare
  - Dropbox
  - Gutenburg
  - Word Doc
  - PDFs
- Buy different voices
- Change rate of speed
- Download for later reading

- $14.99 in iOS App Store
- $9.99 in Android App Store



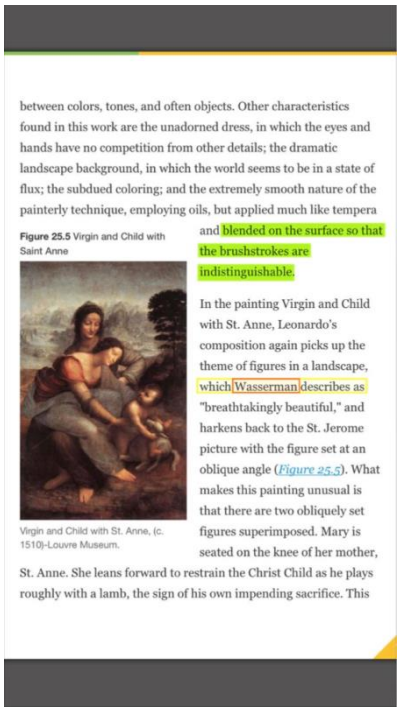
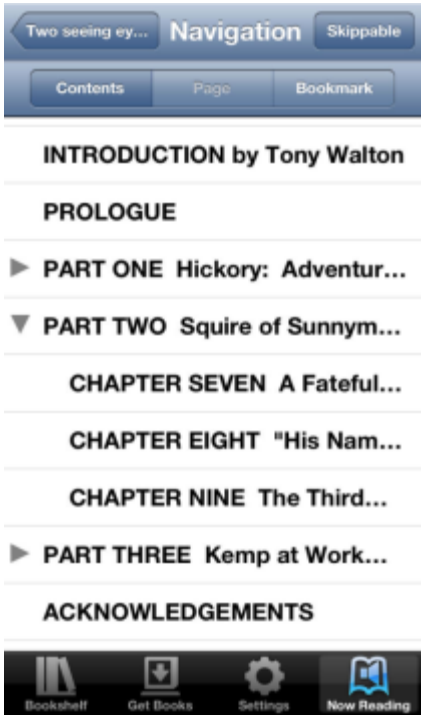

between colors, tones, and often objects. Other characteristics found in this work are the unadorned dress, in which the eyes and hands have no competition from other details; the dramatic landscape background, in which the world seems to be in a state of flux; the subdued coloring; and the extremely smooth nature of the painterly technique, employing oils, but applied much like tempera and blended on the surface so that the brushstrokes are indistinguishable.

Figure 25.5 Virgin and Child with Saint Anne

Virgin and Child with St. Anne, (c. 1510)-Louvre Museum.

In the painting Virgin and Child with St. Anne, Leonardo's composition again picks up the theme of figures in a landscape, which Wasserman describes as "breathtakingly beautiful," and harkens back to the St. Jerome picture with the figure set at an oblique angle (*Figure 25.5*). What makes this painting unusual is that there are two obliquely set figures superimposed. Mary is seated on the knee of her mother, St. Anne. She leans forward to restrain the Christ Child as he plays roughly with a lamb, the sign of his own impending sacrifice. This

BARD Mobile



LIBRARY OF CONGRESS
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 for iOS and Android

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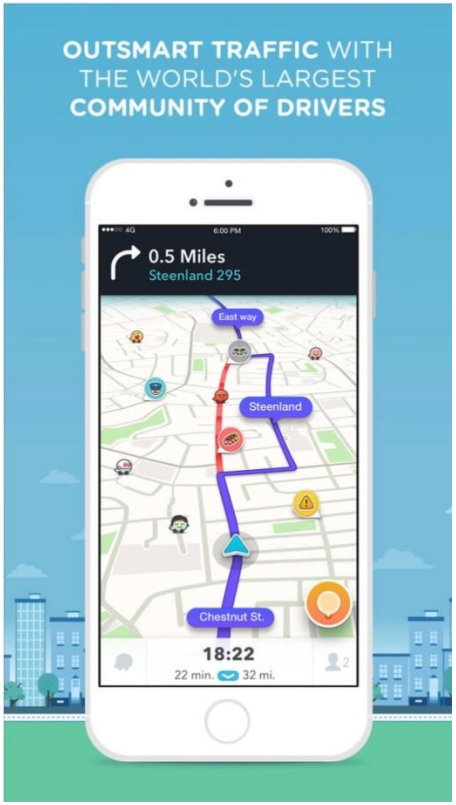
Genius Scan

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

Waze

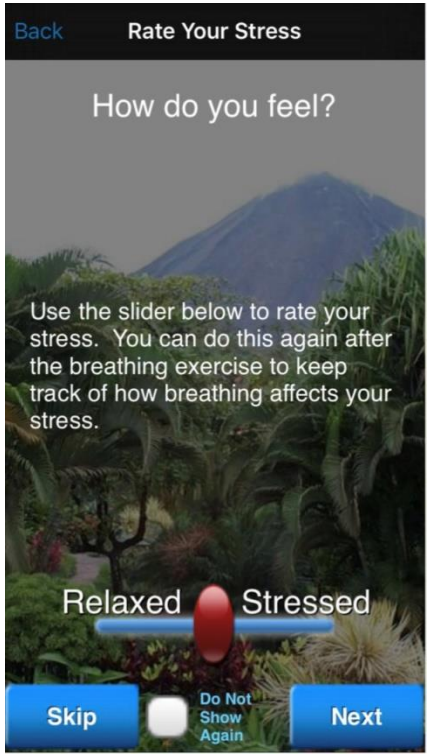
- World's largest community-based traffic and navigation app.
- Join drivers in your area who share real-time traffic and road info to save time, gas money, and improve daily commuting for all.
- Free on iOS and Android



waze
OUTSMARTING TRAFFIC, TOGETHER

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
- Free on iOS and Android



Key Ring

- For loyalty cards and savings while shopping
- Plan, save, and organize by carrying your cards, stores' weekly ads, coupons, and your shopping lists
- Free on iOS and Android

Key Ring™
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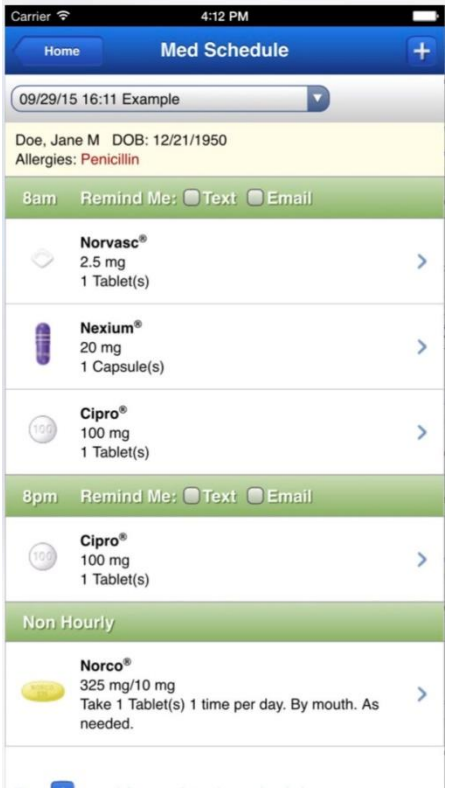
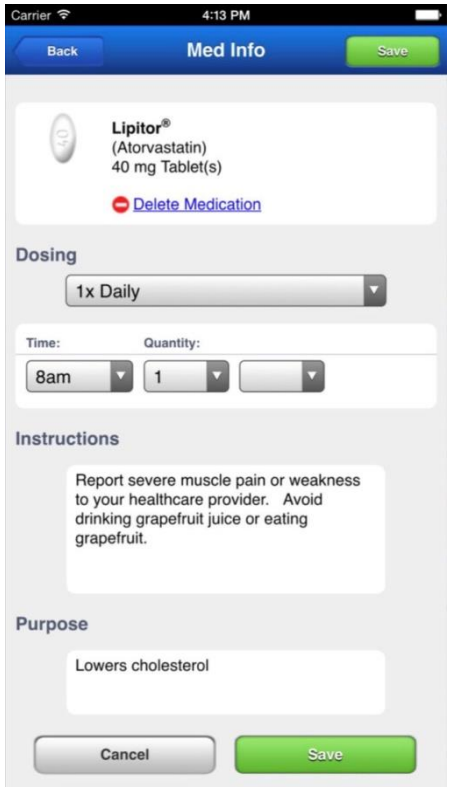
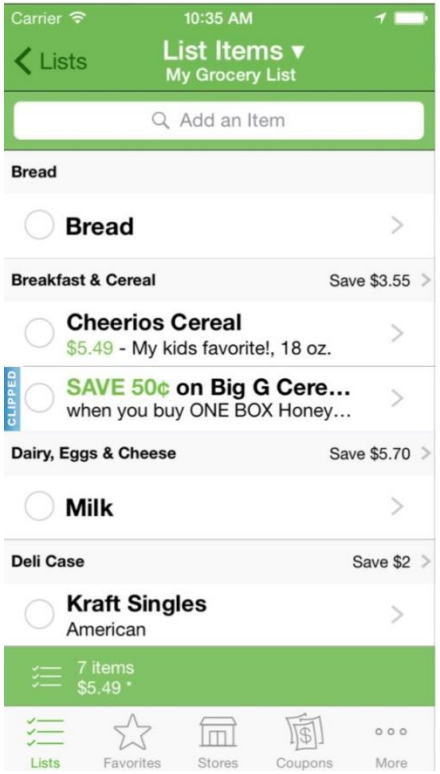
MyMedSchedule

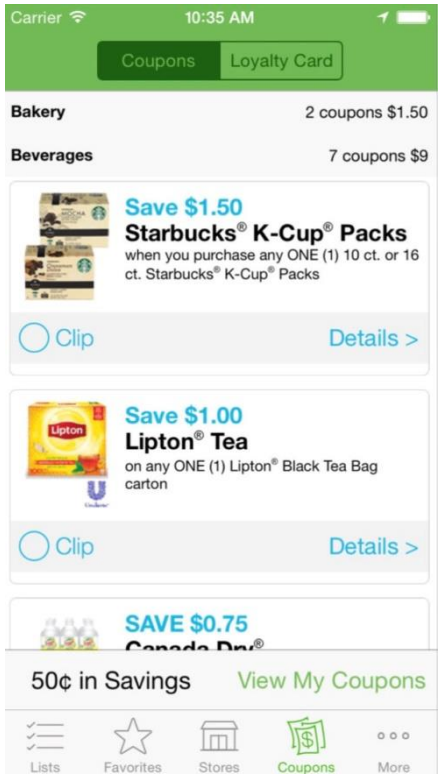
- Keep track of medication
- Reminders
- Refill Reminders
- Healthcare Provider Profiles
- Insurance Information
- Allergies
- Works across Platforms
- Free for iOS and Android
- www.mymedschedule.com





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

TFL Gaming Initiative

- There are many benefits to playing games
  - Improved Hand/Eye coordination
  - Increased problem solving and cognitive function
  - Better handle stressful environments
  - Social outlet
- Tools for Life has recognized the importance of play and is starting an initiative dedicated to gaming with disabilities. Some objectives of the program are:
  - Demonstrate the accessibility of gaming
  - Build relationships with developers and aid in creating more accessible games
  - Increase public awareness of the importance of accessibility in games

Gaming with Dyslexia

Research points to attention difficulties in being a key component of dyslexia. One study has shown that people with dyslexia improved their reading comprehension following sessions of games heavy on action.

It is believed the constantly changing environments require more intense focus.

http://www.scientificamerican.com/article/video-games-make-treat-dyslexia/

Xbox One with Kinect

- Control all of your entertainment with your voice
  - Netflix
  - Skype
  - YouTube
  - Internet Browser
  - Music
  - Television
- Gesture Control
- Price varies depending on bundle.
- Xbox One $299
- Kinect ~ $100

FRU

- FRU is a puzzle platformer that features an innovative use of Kinect, in which your silhouette becomes a "portal" between two worlds.
- Encourages physical movement, activity, and cognitive function.
- Can be played individually or cooperatively.
- https://www.youtube.com/watch?v=pH2zzMEBb7E

Vidget Chair

- Creates a healthier learning environment
  - Provides a safe and quiet way to release some of the endless energy kids have
- Inspires kids to move naturally and celebrates imaginative play while learning

- Multi-purpose
  - Rocking chair
  - Stool
  - Desk
- Tactile/sensory bumps

Bookshare

- Online Accessible Library
- Free membership to qualified students and schools
  - Textbooks if school is member
- Over 515,000 titles
- Serves individuals with:
  - Vision disabilities
  - Physical disabilities
  - Learning disabilities

Audible

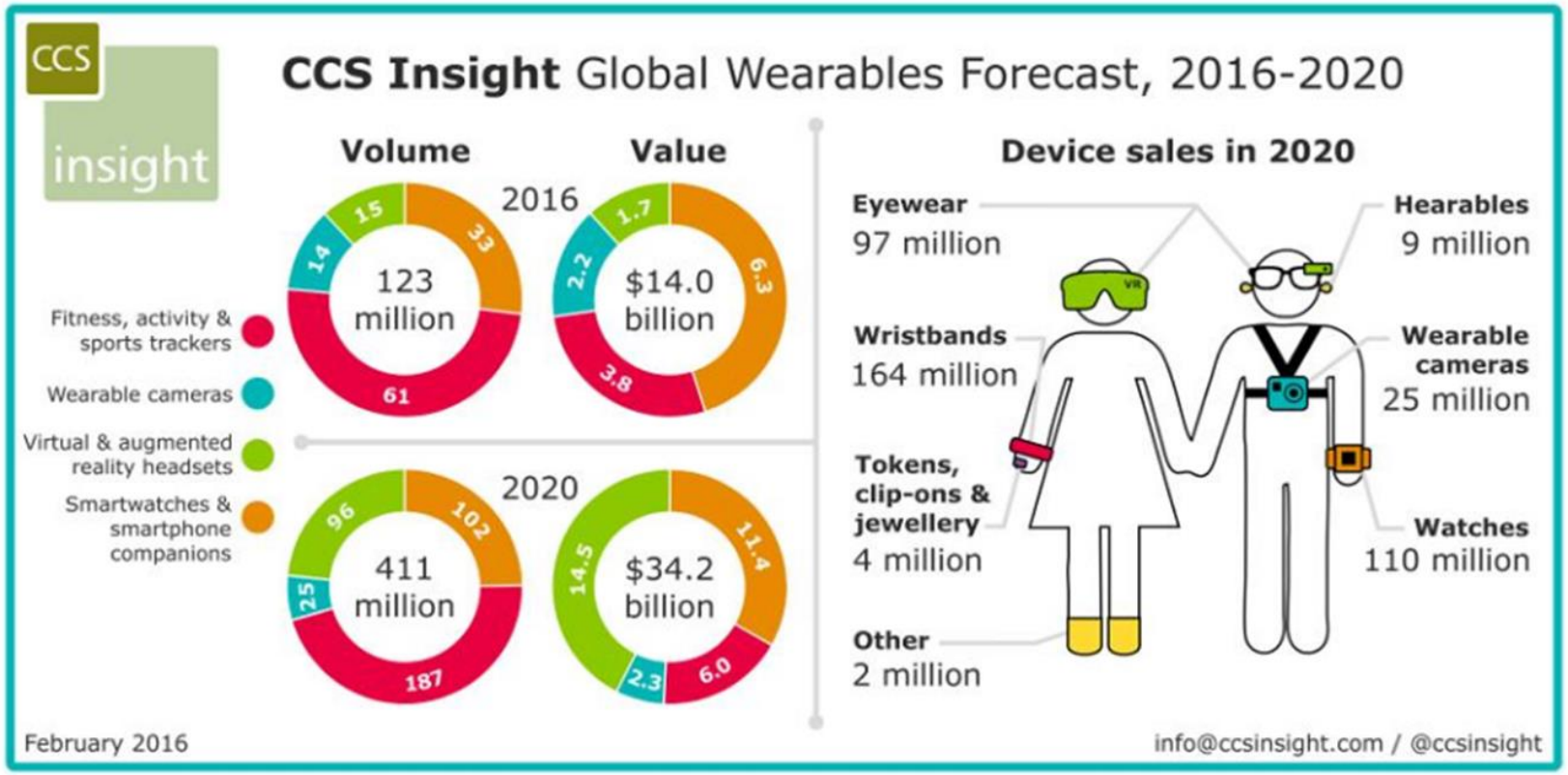
- Digital audiobooks
- Read by Hollywood stars, authors, and professional narrators
- Listen anywhere
- Over 180,000 titles
- Membership

Amazon Echo

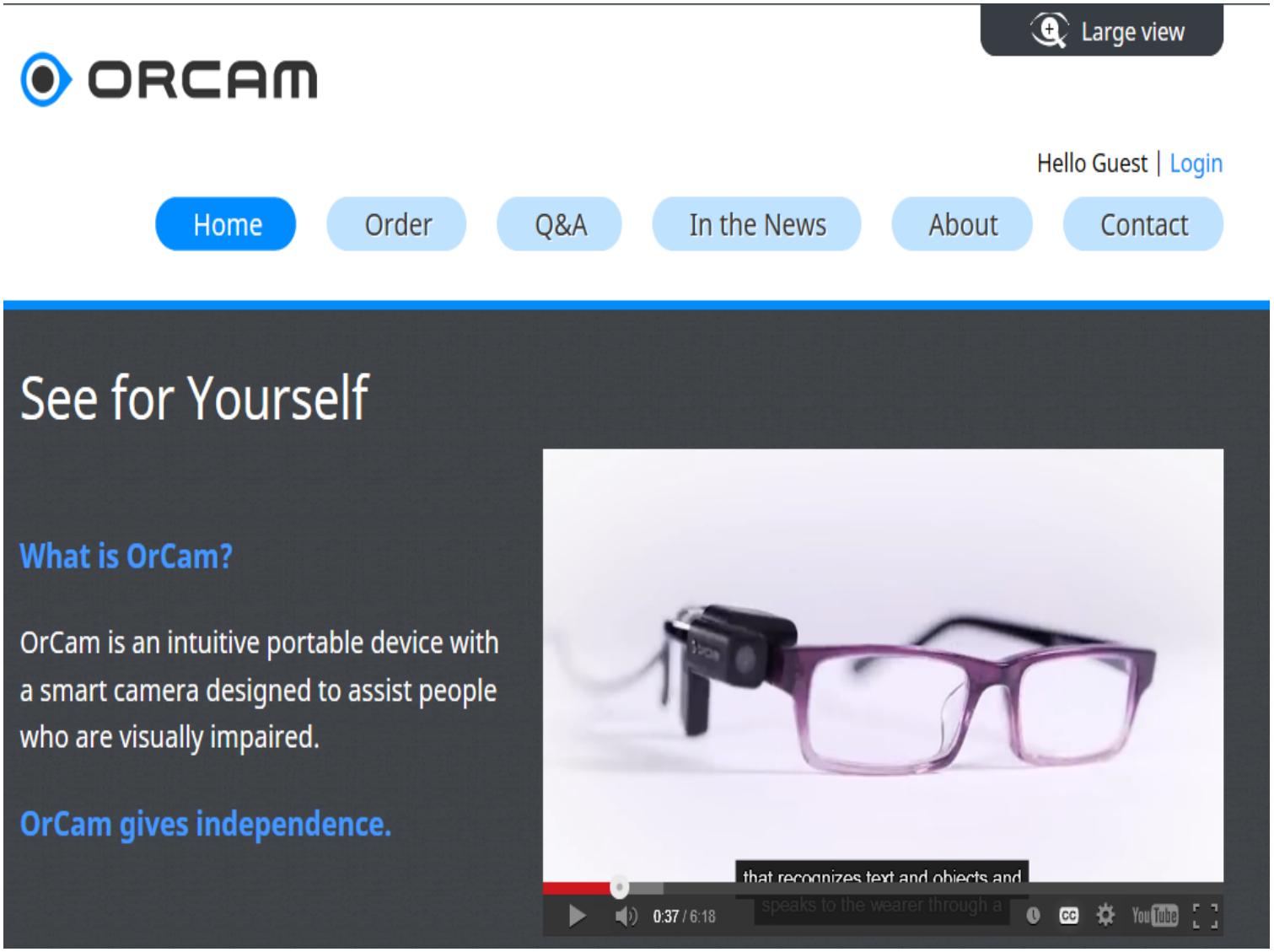
- Speech-controlled speaker system
- Voice recognition at further distances
- All functions are server-side
- Compatible with many EC brands
- Full-sized Echo $179.99
- Echo Dot $49.99

What's New in AT and in the AT Community

CCS Wearables Forecast



OrCam Sreenshot



Lechal

- Haptic Footwear
- Uses GPS to let you know where you are
- Connects with app

www.lechal.com

LECHAL

BUY NOW

INTRODUCING LECHAL FOOTWEAR

NUDGE

HOW HAPTICS SPEAK TO YOU

Intuitive, instinctive navigation - that was our aim with Lechal, and **haptics or vibratory feedback** is the best and simplest way to achieve that. Like a tap on the shoulder, Lechal's gentle vibrations at your feet guide you invisibly but intuitively.

OUR INSPIRATION

Chat? - Online

B-Calm

- “Acoustic shield” allows 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

www.b-calmsound.com

T. Jacket

- Wearable technology vest
- Provides customizable deep pressure
- Uses adjustable air pressure compression controlled by a smartphone app

www.mytjacket.com

Reveal

- Measures and tracks anxiety to help you better understand behavior and prevent meltdowns.

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/

Octopus by Joy

- Smartwatch for Kids
- Icon Friendly
- Watch, Scheduler, and Assistant
- Visual Reminders
- Octopus by Joy

Transition Success: Consider This

- Our success relies on:
  - Being involved in “My Plan!”
  - Knowing myself
    - Self-Exploration
      - Who are you?
    - Learning style
      - What is your personal learning style?
    - Honestly exploring
      - What do I want to do when I grow up?
      - What assistive technology do I need to accomplish my goals?

Transition Success

- Our Success relies on
  - Building win-win-WIN relationships
    - Establishing a solid circle of support
      - Receiving and providing support
    - Diversify your Circle of Friends and Acquaintances
    - It sometimes is “Who you know”
    - BALANCE - Social Life and Studies

Successful Transitions Help Create a Successful Life Journey

- Teach Students to:
  - Get to know themselves
  - Plan for Success – in school, work, life!
  - Begin with the end in mind
  - Be able to tell their story
  - Listen & Learn
  - Try – Fail & Try again…
  - When things get off track - Evaluate and Evolve
  - Explore & USE Assistive Technology
  - Laugh much!
  - Celebrate their successes!!

My Question to you:
What have you learned today?

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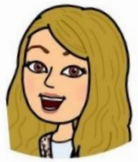

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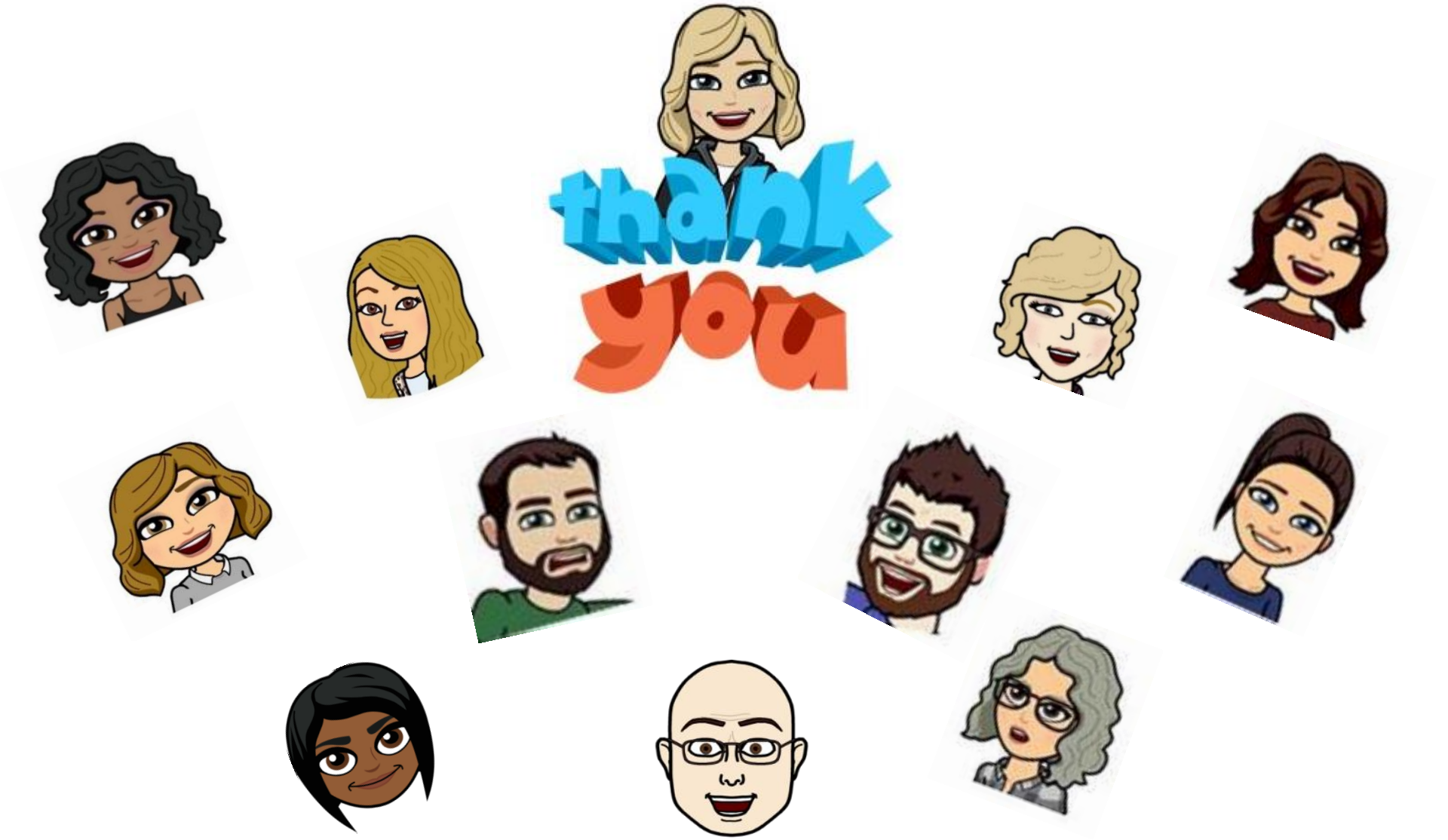
AMAC
Accessibility for All

TOOLS for LIFE
Georgia's Assistive Technology Act Program

TOOLS for LIFE

Georgia's Assistive Technology Act Program



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