Preparing for Success: Exploring Assistive Technology

Martha Rust with contributions by Carolyn Phillips, Liz Persaud, and Rachel Wilson

Tools for Life
www.gatfl.org

April 12, 2013
AMAC Accessibility is a social change organization on a mission to create affordable services for governmental, private and non-profits organization working with individuals with disabilities. Services include e-text, braille, captioning, assistive technology, office management software and consulting.
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
Georgia’s Federal AT Act Program

- 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
  - Lending Libraries
  - Training and Demonstrations
  - AT Reuse
  - AT Funding Education/Assistance and Resources
- Online Resources
  - [www.gatfl.org](http://www.gatfl.org) - 12,000 unique visitors a month
TFL Network
Who are We Serving

Over 54,000,000 individuals in the United States have disabilities that affect their ability to:

- see
- hear
- communicate
- reason
- walk
- perform other basic life functions

People with disabilities are the largest minority group in America.

This group cuts across racial, ethnic, religious, gender and age boundaries.

Anyone can become a member of this minority group at any time.

Public Law 108-364
Guiding Principle

• DisAbility is a natural part of the human experience and in no way diminishes the right of individuals to:
  (A) live independently;
  (B) enjoy self-determination and make choices;
  (C) benefit from an education;
  (D) pursue meaningful careers; and
  (E) enjoy full inclusion and integration in the economic, political, social, cultural, and educational mainstream of society in the United States.

Public Law 108-364
You are Among Greatness!

Business executives who pay great sums for consultants to teach them to “think out of the box” would do well to observe the habitually creative thinkers in their midst – people with disAbilities.
You are Among Greatness!

The necessity of addressing mundane problems with creative solutions has likely prepared many people with disAbilities to be innovative in more complex areas, including the challenges faced by school and business.
Innovations - “Curb-Cuts”

- Technological innovations and modifications originally intended for people with disabilities, but that end up benefiting many more, are often called “electronic curb-cuts”. Examples of these are almost endless:

- The most famous is the telephone. Alexander Graham Bell, as many know, was a teacher of deaf students (his wife also had a severe hearing impairment), and the research that led to the invention of the telephone was directly related to his concern for them.

- The development of early computer protocols led to what is now called the Internet. Dr. Vinton Cerf, who was hearing impaired, was married to a woman who was deaf, and frequently corresponded with her using text messaging. His familiarity with this format was key to his work with ARPANET, the precursor of the World Wide Web.
Innovations - “Curb-Cuts”

• Inventor Dean Kamen, known for a series of disability related inventions, was working on a wheelchair capable of climbing stairs and putting its occupant in a standing position. In the process, he and his team realized that they could build a device using very similar technology that could impact how everybody gets around.

• The **Segway HT** (for human transporter), a high-tech scooter-like device was born!
You are Among Greatness!

The following list, a small sample of famous people with disabilities, proves the point:

<table>
<thead>
<tr>
<th>Ray Charles</th>
<th>Charles Dickens</th>
<th>Leonardo da Vinci</th>
</tr>
</thead>
<tbody>
<tr>
<td>Helen Keller</td>
<td>Toulouse-Lautrec</td>
<td>Albert Einstein</td>
</tr>
<tr>
<td>Tchaikovsky</td>
<td>Emily Dickenson</td>
<td>Friedrich Nietzsche</td>
</tr>
<tr>
<td>Agatha Christie</td>
<td>Michelangelo</td>
<td>George Washington</td>
</tr>
<tr>
<td>Mel Tillis</td>
<td>Harriet Tubman</td>
<td>George Patton</td>
</tr>
<tr>
<td>Winston Churchill</td>
<td>Robert Dole</td>
<td>Robin Williams</td>
</tr>
<tr>
<td>George Lucas</td>
<td>John Milton</td>
<td>Woodrow Wilson</td>
</tr>
<tr>
<td>Leo Tolstoy</td>
<td>Vincent Van Gogh</td>
<td>Virginia Woolf</td>
</tr>
<tr>
<td>Charles Darwin</td>
<td>Sir Isaac Newton</td>
<td>Goya</td>
</tr>
<tr>
<td>Henri Matisse</td>
<td>Franklin Roosevelt</td>
<td>Itzhak Perlman</td>
</tr>
<tr>
<td>Alexander the Great</td>
<td>Beethoven</td>
<td>Lord Byron</td>
</tr>
<tr>
<td>Handel</td>
<td>Babe Ruth</td>
<td>George Bernard Shaw</td>
</tr>
<tr>
<td>Renoir</td>
<td>Homer</td>
<td>Julius Caesar</td>
</tr>
<tr>
<td>Muhammad Ali</td>
<td>Sir Walter Scott</td>
<td>Robert Louis Stevenson</td>
</tr>
<tr>
<td>Hans Christian Anderson</td>
<td>James Earl Jones</td>
<td></td>
</tr>
</tbody>
</table>
Stay off the FAST Track!

Frustration
Anxiety
Stress
Tension
Successful College Experience – Things to Consider

• Remember that it is not essential to divulge specific personal information about your disability.
• Provide information about
  – 1) how your disability affects your capacity to learn and perform effectively, and
  – 2) the environment, supports, and services you'll need in order to access, participate in, and excel in your job, studies, and community.
• Only You must decide what and how much of this sensitive information is necessary to reveal in order to get the accommodations you need.
Successful College Experience

• Disclosure is confidential and involves only the Disability Services Office and any instructors whom the student informs.

• Labels are non-existent
A Look at Some Assistive Technology
Kurzweil 3000

- Text-to-Speech software
- Helps improve reading speed and comprehension
- Note taking capabilities
  - Different color highlighters
- firefly
  - Access many features of Kurzweil through the internet
  - firefly demo
- Free download trial
  - www.kurzweiledu.com
  - Kurzweil 3000 Demo
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 an mobile Android app
- Works inside Word and emails
- Text to Speech
  - Read emails and docs
  - Can choose voice and accent
- Ginger Demo
Ginger App

• Free
• Grammar and Spell checker
• Personal Assistant
• Use it to correct text messages, Whatsapp messages, Gmail and Outlook emails, and even social media apps such as Facebook
Live Scribe Pen

- Records what it hears and what you write
- Uses specific paper for playback
- Connects to computer by USB for saving
- Tap on note and playback from there
- Jump forward and back in notes
- Dictionary
- Translation Apps
- Purchase Apps online
- Demo
AMAC

- Several Universities and Tech School across the US
- If a Deluxe member 20+ software available to students
- Textbooks available in electronic format, audio, and braille
- Remote Captioning
- Student Download center
Learning Ally

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

- easy to use software application that can assist certain PC users
- make browsing and reading easier
- work with any piece of software, as it acts as an overlay on the PC screen
- Demo
ClaroSpeak US

- Text-to-Speech
  - import documents and PDFs into ClaroSpeak from apps such as Mail, or import PDF, Word, Pages and other files directly from Dropbox using
  - Change font and color
  - Save text as an audio file
  - Visual Tracking
  - Send Text
Premier Software

- www.readingmadeeZ.com

- Read documents in standard file formats such as Microsoft Word, Rich Text, text file format, HTML, and PDF

- Converted to audio files for use on a CD or MP3 player

- Scan and read documents

- Look up a word or definition in the integrated dictionary

- Create study notes and much more!
Premier Features

• PDF Equalizer
• E-Text Reader
• Universal Reader Plus
• Scan and Read Pro
• Talking Word Processor

• PDF Magic Pro
• Text-to-Audio
• Ultimate Talking Dictionary
• Talking Calculator
• Premier Predictor Pro
Premier Talking Reader

- PTR reads selected text aloud with the added benefit of note extraction
- Dropbox integration
- Email files
- Sync files through iTunes
A Look at Mobile Technology
Android & Apple
Great prices on tablets

- **Surface**
  - Save up to $70.00
  - The original tablet at a great price
  - Built-in kickstand
  - Office Home & Student 2013 RT
  - Up to 8 hours battery life
  - (55)

- **Surface Pro**
  - Save $300.00
  - The laptop in tablet form
  - Built-in kickstand
  - Surface Pen included
  - Huge savings while supplies last
  - (92)

- **Toshiba Encore WT8-A32M Touchscreen Tablet**
  - Save $80.00
  - 8-inch HD touchscreen
  - Intel Atom Z3740
  - 2GB memory/32GB eMMC
  - Up to 7 hours battery life
  - (3)

- **Lenovo ThinkPad 8 Touchscreen**
  - Save $50.00
  - 8.3-inch Full HD display
  - Intel Atom Z3770
  - 2GB memory/64GB eMMC
  - Up to 8 hours battery life
  - (8)
Surface Pro 3

- June 2014
- 12 inch screen
- Up to 9 hours of web browsing
- Windows 8.1
- Surface pen
- Multi positioning kickstand
- Palm Block Technology
- Install Software
- Starting at $799
Surface RT and Pro

• 2 types
  – RT
  – PRO

• RT
  – Cannot download software
  – Does not support digital pen
  – Built in MS Office
    • Word, PowerPoint, Excel

• Pro
  – 30 day trial of MS Office
  – Ability to download software

• Open 3 Windows
• Tiles
  – Start screen
• Charms
  – Right hand side
Accessibility of Surface

- Magnetic Attachments
  - Charger and keyboards
- Uses Windows 8
  - Ease of Access
- Narrator
- Magnifier
- On-Screen Keyboard
- Windows Speech Recognition
- Picture Password
Surface Tiles

• Used to launch all apps
• 2 size
  – Small and large
• Live tiles
  – Quick short bit of information
  – Can be turned off/on
• Pin on Start screen

• Move Tiles to different sections
• Name the group of tiles
Snapping

- Having 2 or 3 apps open on the screen at the same time
- With an open app, drag a finger from the top of a screen; app will pull away and a dividing bar will appear
- Drag to the left side to bring up a previous app
Surface Apps: OneNote

• Save all your notes in the cloud
  – All devices
• Share for viewing and editing
• Save any web page to OneNote and view it later, online or offline
• Send emails to me@onenote.com
  – Put into your notebook.
• Take photos of documents and whiteboards
Surface Apps: News

• Aggregate all the news you care about in one spot
• Personalize home screen
• All the news in one spot
• Free
Surface Apps: WordBook

- Dictionary App
- 120,000 pronunciation guides
- 150,000 real human voice audios
- Built-in thesaurus and word links
- Browser-like content navigation with ability to tap on any word to view its definition
The World's Most Popular Mobile OS

• Android powers more than a billion phones and tablets around the world.

• It’s customizable, yet easy to use, and since it's made by Google, it works seamlessly with all your favorite Google apps.
Smartphone Users Pick Android

47% of People Use Android Smartphones
30% of People Use iPhones
23% Use Other Smartphones
Samsung Galaxy Tab 3

- 7 inch screen
- Open one screen at a time
- Camera for photos and videos
- Ability to organize apps
- Similar to the Galaxy smartphone
- Starts at $179
Samsung Galaxy Note 8.4

- Built in accessibility features
- Multi Windows
  - 2 Screens
- Customize dashboards
- 8.4 inch display
- 10 hrs Internet time
- e- Meeting
  - Share screen
- Starting at $349
Google Nexus Tablet

- 7 inch screen
- Up to 9 hours of HD video playback
- 10 hours of web browsing
- Made to Share
  - Customize space and personal homepage
- Starts at $229
Kindle Fire HD/HDX

- eBook Reader and mobile tablet
- Front facing camera
- Access to Amazon apps
- Free cloud storage for Amazon purchases
- Purchase Apps
- 7inch or 8.9 inch screen
- ‘Mayday’ button HDX
- Starts at $139- HD
- $199- HDX
Kindle Fire HD/HDX Features

• Download Books and Movies
• Access to Amazon
• Front Facing Camera
  – Skype
• Can Read Books out loud
  – If book has this feature enabled
  – Check on product details page
  – Whispersync for Voice
  – Immersion Reading
• Mayday Button
• Can Change:
  – Font
  – Line Spacing
  – Text Size
  – Background color
Statistics

- There are approximately 73 million iPhones in the world.
  » Apple, 2012
- In 2010, Apple reported that over 1000 new apps are submitted every day.
- In 2012, 400 million iTunes accounts
  » Y. Lachelle, Aug., 2010 and H. Dediu, June 2012
- Apple receives about 49.5 Million App downloads per day!
  » H. Dediu June 2012
Apple iPad/ mini iPad

- Multi-touch screen
- New iOS 7
- Millions of apps
- Surf web
- iTunes
- Videos
- Organization
- Accessibility
- Books
- Photos
- Speakers
- New iPad had 5.0 megapixel camera
- Starts at $499/$399 and mini $329
Built-in Accessibility Features

- VoiceOver
- Zoom
- Large Text
- Invert Colors
  - (white on black)
- Speak Selection
- Speak Auto Text
- Mono Audio
- Assistive Touch
- Guided Access
- Home-Click Speed
- Switch Access
- Braille Displays
VoiceOver

- Standard feature on iPhones, iPads, and iTouches
- World’s first gesture-based screen reader
- DOES NOT WORK WITH ALL APPS
  - Does not work with many eBooks or textbooks
  - Works with built-in apps
- Built-in voices that speak 36 languages
- Adjustable speaking rate
- Echoes each character as you touch it when typing or can speak completed word instead.
- Speak Auto-text
- Has the rotor
- Works with all built-in applications

DOES NOT WORK WITH ALL APPS
Helpful tips for VoiceOver

- The Rotor
  - Virtual control
  - Rotating 2 fingers on the screen like a dial
  - Changes the way VoiceOver (VO) moves through a document based on setting
  - Can use to navigate through web pages
Zoom & Invert Colors

• Zoom
  – Magnify entire screen of any application
  – Double-tap with 3 fingers
  – Can magnify 100%-500%
  – Works with VoiceOver on

• Invert Colors
  – Reverse video effect works in all applications
  – Can be used with Zoom and VoiceOver
Creating Keyboard Shortcuts

• Go to General => Keyboard and make sure Shortcut is turned on
• Go to Add New Shortcut
• Put in your Phrase
• Create Short Cut
• Example:
  – Phrase : Martha E. Rust, MS CRC ATP
  – Shortcut is: MER
  – So when MER is typed it will put in the above Phrase
  – OMW => On My Way!
Our smartest keyboard ever.

iOS 8 makes typing easier by suggesting contextually appropriate words to complete your sentences. It even recognizes to whom you’re typing and whether you’re in Mail or Messages. Because your tone in an email may be different from your tone in a message.

Learn more ➤
iCloud Drive. Any kind of file. On all your devices.

The good news: You can work on any file, anywhere. The bad news: You can work on any file, anywhere. That includes presentations, PDFs, images, and more — right from iCloud. On whichever device you’re using, including your Mac or PC.

Learn more →
iOS 8 Health

Health.
An entirely new way to use your health and fitness information.

Now your activity tracker, heart rate monitor, and other health and fitness apps can talk to each other. Which means they’ll be able to work even harder for you. And all the information is accessible in one easy-to-read dashboard.

Learn more »
Spotlight. Brighter than ever.

Sometimes you’re looking for a contact or an app. Sometimes you’re looking for answers. Spotlight now gives you suggestions from Wikipedia entries, places nearby, trending news, and more. It’s even smart enough to recognize context and location to offer you the most relevant information.

Learn more ›
Apple: Read Text Out Loud

- Open the Settings app on your home screen.
- Tap the General tab.
- Scroll down and tap the Accessibility tab.
- Tap the Speak Selection option (it should be set to off, currently).
- Tap the toggle switch to turn it on. You can also adjust the rate of speech as well.
- Highlight any text like you would if you were going to copy it but tap the "Speak" button instead.
  - This option will change to "Pause" while the text is being spoken so you can stop it at any point.
- Can choose to highlight as it reads
Apple: Quick Tips

• A faster way to reveal the multitasking bar
  – Take four fingers and swipe them up — have faster access to the multitasking bar than by double-tapping the home button.

• Turn on Web Privacy Settings
  – Start the Settings app and tap on "Safari." Under the Privacy setting, set the "Private Browsing" switch to the "on" position

• Clicking the space twice while typing will create a period
  – Can make typing on a virtual keyboard easier
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
My Favorite Apps

You searched for: Learning, Cognition, and Developmental

<table>
<thead>
<tr>
<th>Logo</th>
<th>Name</th>
<th>Category</th>
<th>Device Type</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="tango Video Calls" /></td>
<td>Tango Video Calls</td>
<td>Learning, Cognition, and Developmental</td>
<td>iOS</td>
</tr>
<tr>
<td>No Ratings</td>
<td>Tango brings you free, high-quality mobile voice and video calls over 3G and Wi-Fi. Millions of people around the world are using Tango in exciting new ways.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><img src="image2" alt="I-pront" /></td>
<td>I-pront</td>
<td>Learning, Cognition, and Developmental</td>
<td>iOS</td>
</tr>
<tr>
<td>No Ratings</td>
<td>Professional Tele-prompting software for your iPhone or iPod Touch.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><img src="image3" alt="Dragon" /></td>
<td>Dragon</td>
<td>Learning, Cognition, and Developmental</td>
<td>iOS</td>
</tr>
<tr>
<td>5 stars by 1 users</td>
<td>Dragon Dictation is an easy-to-use voice recognition application powered by Dragon</td>
<td></td>
<td></td>
</tr>
<tr>
<td><img src="image4" alt="iBooks" /></td>
<td>iBooks</td>
<td>Learning, Cognition, and Developmental</td>
<td>iOS</td>
</tr>
<tr>
<td>No Ratings</td>
<td>iBooks includes the iBookstore, where you can download the latest best-selling books or your favorite classics</td>
<td></td>
<td></td>
</tr>
<tr>
<td><img src="image5" alt="Say Text" /></td>
<td>SayText</td>
<td>Learning, Cognition, and Developmental</td>
<td>iOS</td>
</tr>
<tr>
<td></td>
<td>SayText reads out loud the text in the image. It is intended for the visually impaired users. SayText is a free spin off product from the DocScanner team.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
More Reading Apps

• Free Books
  – Free
  – Over 23,000 titles
  – Audiobooks

• Newspaper
  – Free
  – Newspapers from 150+ countries
  – Over 20,000 newspapers

• Overdrive Media Console
  – Free
  – Must have library card
  – Download ebooks and audiobooks on the go
Reminders

- Built-in App
- Works with VoiceOver
- Organize your reminders
- Siri if have iPhone 4s or 5
- The new iPad
Voice Dream

- Text to Speech
- Highlights as it reads
- Import
  - Bookshare
  - Dropbox
  - Gutenberg
  - Word Doc
  - PDFs
- Buy different voices
- Change rate of speed
- Download for later reading
- $9.99
Umano

• News read to you by real people
• Make a playlist of articles
• Download to listen to offline
• Upgrade to premium for $3.99/ month
• Free
MyMedSchedule

- Keep track of medication
- Reminders
- Refill Reminders
- Healthcare Provider Profiles
- Insurance Information
- Allergies
- Works across Platforms
- Free
- www.mymedschedule.com
Note Taking Apps
• Free
• Capture ideas instantly with voice, photo, and text notes
• Use online AND offline on your mobile phone or tablet
• Share checklists to collaborate on to-do lists
• Set reminders
AudioNote

- Records your notes, meetings or lectures
- Can take notes by typing, stylus, or drawing
- Time stamps so you can go directly to where you want to hear
- Highlights notes when read back
- $4.99
Voice Note Trial

• Create lists, texts, email, notes, calls, and dial by voice
• Can use Google Voice Recognition when connected to internet
• Free
Say it & Mail it Pro

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

- Record lectures
- Tag the audio with notes
- Tap the audio tag next to the note to recall exactly what was said during which a specific note was taken
- Free
ColorNote Notepad
Notes To Do

• Simple notepad app
• Organize notes by color
• Checklist for To do list & Shopping list
• Checklist to get things done
• Organize your schedule in calendar
• Password Lock note
• Free
Brevity

- Word Completion App
- Automatically add words if not in list
- Remembers how often you use words and offers the most frequently chosen options to you first
- E-mail Support - Send e-mails from directly within the application
- Text Message Support
- Remove misspelled or unwanted words
- Set prediction font size and window transparency
Apps for Organization
iHomework

• Keep up-to-date with your school work, grades, to-do's, teacher's information

• School organizer that can be with you anywhere you go, whether that be on your iPhone/iPod touch, iPad, or Mac
Pageonce

• Free
• Keep track of your cash and credit cards
• Pay your bills
• Real-time alerts and reminders about upcoming bills, overage charges, and suspicious transactions
• Understand your debt
Scan Genius/ Genius Scan

• Free on Apple
• $1.99 on Android
• Pocket Scanner
• Quickly scan documents on the go and email the scans as JPEG or PDF
• Allows you to build PDFs
Remember the Milk

- Free
- App for organization that is based on the website of the same name.
- Bring your “To-Do” list to life with features such as keys, tasks, actions, search, notes, locations, and reminders.
- App allows user to switch to landscape mode for easier reading and typing.
Reminders

• Built-in App
• Works with VoiceOver
• Organize your reminders
• Siri if have iPhone 4s or 5
• The new iPad
Questions
Contact

Carolyn Phillips
Tools for Life Director
Carolyn.Phillips@gatfl.gatech.edu

Daphne Brookins
Funding Specialist
Daphne.brookins@gatfl.gatech.edu

Ben Jacobs
Accommodations Specialist
ben.jacobs@gatfl.gatech.edu

Liz Persaud
Training, Outreach and Development Coordinator
liz.persaud@gatfl.gatech.edu

Martha Rust
AT Specialist
martha.rust@gatfl.gatech.edu

Rachel Wilson
Tech Match Specialist
Rachel.wilson@gatfl.gatech.edu