



Assistive Technology Strategies and Solutions for Students Living with Autism

Danny Housley & Carolyn Phillips, Tools for Life
With contributions from the TFL Team

www.gatfl.org

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

The Community School
Thursday, March 24, 2016
1:00 PM to 2:00 PM





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
- 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 45 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 nonprofits organization working with individuals with disabilities. Services include e-text, braille, captioning, assistive technology, office management software and consulting.

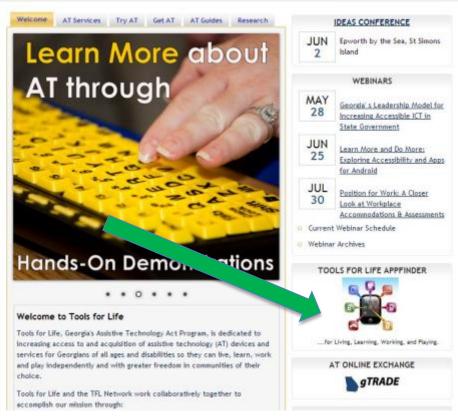




TFL AppFinder







Tools Help

Georgia TOLS & LIFE Tech

HOME

ASSISTIVE TECHNOLOGY

TFL NETWORK

CALENDAR OF EVENTS





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TFL WIKI

MEET THE TFL TEAM

MEET THE

ADVISORY COUNCIL

DIRECTIONS/MAP

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LDA ANNUAL CONFERENCE

FEB 19

Disneyland Resort & Hotel in Anaheim, California

INTEGRATING UDL AND AT TO CLOSE

THE ACHIEVEMENT GAP

FEB 25 Griffin RESA 440 Tilney Avenue, P O Drawer H

Griffin, GA 30224





MAR

Georgia World Congress Center



TFL Wiki



www.gatfl.gatech.edu/tflwiki/index.php?title=Main_Page



Go | Search

----You

64.134.167.66 Talk for this IP address Log in



Georgia's Assistive Technology Act Program

Navigation

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Featured Categories

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Printable version Permanent link

Page Discussion

Main Page

Welcome to the Tools for Life wiki @ Tools for Life, Georgia's Assistive Technology Act Program, gives more options for greater freedom by 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 in communities of their choice.

Frequently Asked Questions (FAQs)

- What is Assistive Technology?
- Where can I learn about Assistive Technology devices?
- Where can I access TFL webinar archives?

Recent Presentations and Activities

- 2015 ATIA Orlando January 29-31, 2015 Orlando, FL
- Visiting Nurse Health System, Exploring AT Services in Georgia December 18, 2014 -Atlanta, GA 🐶
- 2014 Decoding Dyslexia December 13, 2014 Georgia Tech, Atlanta, GA 🗗
- 2014 SILC and TFL Atlanta Town Hall December 9, 2014 Atlanta, GA №
- 2014 GATE Seminar December 5, 2014 Georgia Tech, Atlanta, GA 🗗
- 2014 GSU Rehabilitation Counseling Improving Independence through AT November 12, 2014 - Atlanta, GA @
- 2014 LeadingAge Georgia Conference November 6, 2014 Atlanta, GA №
- Gwinnett Technical College October 30, 2014 Atlanta, GA ☑
- 2014 High School High Tech October 23, 2014 Dublin, GA
- 2014 Georgia College & Career Readiness Institute September 25-26, 2014 Macon, GA ₫
- LDA Webinar: AT 101 Understanding and Advocating for Assistive Technology -September 18, 2014 - Webinar R
- 2014 CDA Appual Conference September 3.5, 2014, Savannah, CA-51

Connect with Us

Search

- Tools for Life Website r
- Tools for Life on YouTube ☑

Helpful Tools & Resources

- Tools for Life AppFinder ☑

Read View source View history

Tools for Life Community Partners

News

- June 3-6, 2013 Tools for Life co-hosts IDEAS Conference in St. Simons Island, GA
- April 2013 Tools for Life AppFinder makes program spotlight on AT Connects website



The TFL Network is Growing!





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









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



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.





Future

- Level out the playing field
- The Future is Contextual
 - -GPS apps
 - Ads on Internet
 - -Smart watches
 - -Social Media



AMAC Accessibility for All

What is an AT Service?

Assistive Technology Services

Any service that **directly assists an individual with a disability** in the selection, acquisition, or use of an assistive technology device.

Includes:

- Evaluating
- Providing devices
- Selecting, Designing, Customizing
- Maintaining, Repairing
- Coordinating
- Training/Technical Assistance student, family and school service providers

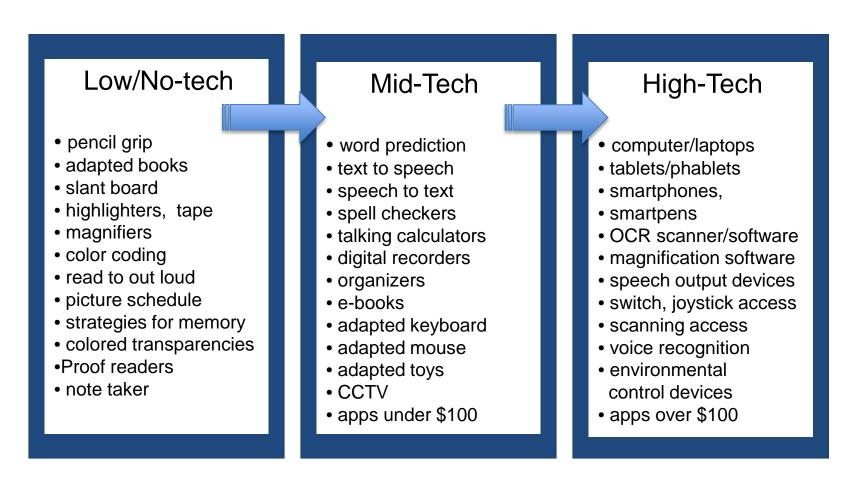
- Public Law 105-394 [29 USC 2201]



Assistive Technology Continuum

Observations & "Hanging out with Intent"

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



Low Tech AT Solutions





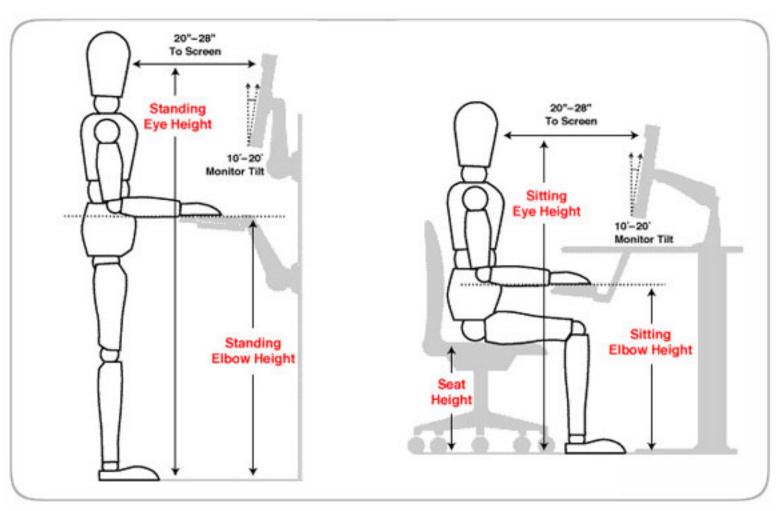








Ergonomics in the Classroom





Know Your Tablets



Microsoft Surface

- Windows 10
- Slim and has a USB port
- Moveable Tiles
- Built-in Accessibility
 - Speech-to-text
 - Narrator
 - Magnifier
 - High contrast
- Thin pressure sensitive cover that doubles as a keyboard







Samsung Galaxy

- Android System
- 7, 8, 10, 12 or 18" in screen
- Camera
- Micro card
- Wi-Fi
- USB for computer
- Some built-in accessibility app
 - Download others
- Starts at \$149.99







AMAC Apple iPad Pro/Air/Mini

- Multi touch screen
- Smart Keyboard with iPad Pro
- New iOS 9
- Millions of apps
- Surf web
- iTunes
- HD Video
- Organization
- Accessibility
- Books
- Photos
- Speakers
- 5.0 megapixel camera







Built-in Accessibility Features

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









- If you do not need the latest and greatest consider an older models for a discount
- Want to make sure that refurbish tablets have been certified
- Look for at least 1 year warranty
- Many places now sell
 - Apple
 - BestBuy
 - Amazon





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







Tools for Life AppFinder



TFL Gaming Initiative

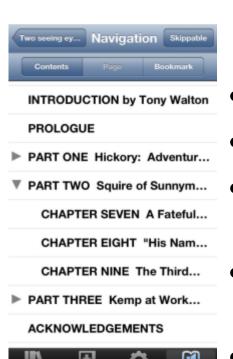
- There are many benefits to playing games
 - Improved Hand/Eye coordination
 - Increased problem solving and cognitive function
 - Better handle stressful environments
 - Social outlet
- Tools for Life has recognized the importance of play and is starting an initiative dedicated to gaming with disabilities.
 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



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



Pixie

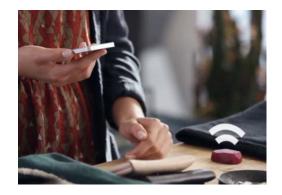
- Maps all of the digital things in your life
- Place a pixie chip on any device and map will tell you it's precise location
- https://www.getpixie.com/





iBeacon Technology

- Estimote Beacons
 - Wireless sensors that attached to any location or object
 - Broadcasts radio signals to smartphone
 - https://www.youtube.com/watch?v=lwnmx-5mBLM











amac iMovie



- Share information via Facebook, Twitter, Email, or SMS
- Upload photos









SkyGrid

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

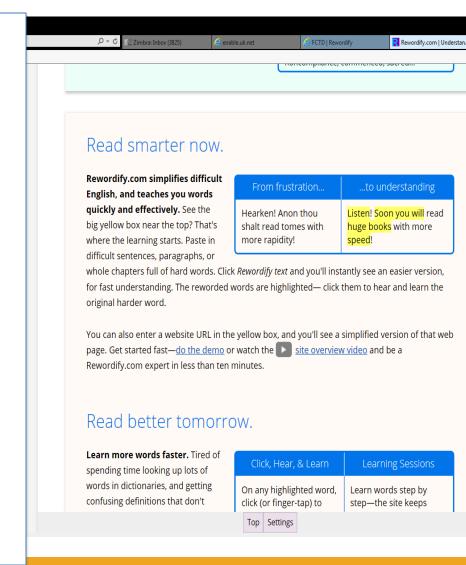




Rewordify.com

"Rewordify is a free website that makes English easier to read. In some ways it is similar to a thesaurus, but allows users to enter not just single words, but entire sentences, pages, and even websites, for clarification. Passages are preferred, as difficult words are 'rewordified' using the context of the sentence. For example, paste in "The tempest raged outside while the throng huddled inside.", and it is 'rewordified' into, "the storm raged outside while the crowd huddled inside."

Students can use this tool to make passages more understandable. Simplified words are highlighted for quick comparison with the original word(s)."





Learning Ally

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





Bookshare

- Online Accessible Library
- Free membership to qualified students and schools
 - Textbooks if school is member
- 389,675 titles
- Serves individuals with:
 - Vision disabilities
 - Physical disabilities
 - Learning disabilities





Audible.com

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





ClaroSpeak US



ClaroSpeak speaks back text with high-quality speech and highlighting so you can follow the words as they are spoken.

Tap the screen to place the 'cursor point' in the text. Then tap the Play icon to start speaking.

The text will be spoken from the start point with the highlighting and voice you have selected in Settings. To stop ClaroSpeak speaking, tap the Stop icon or tap anywhere in the ClaroSpeak title bar.

- 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



ClaroRead

- Reads text as it highlights
- Moveable tool bar
- Can read doc, PDFs, internet, and more
- 7.0
 - Add audio notes
 - Save as mp3 file
 - Save as video

- Can change highlighting colors
- www.claroread.com





TextHelp

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

- Has a Google Chrom version
- www.texthelp.com





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 a mobile Android, iOS and Windows
- Works inside Word and emails
- Text to Speech
 - Read emails and docs
 - Can choose voice and accent
- Ginger Demo



Inspiration

- Mind Mapping software
- Allows User to "connect" ideas together
- Add in pictures and hyperlinks
- Can produce an outline form

- Better organization of essays
- \$27.96
- App \$9.99

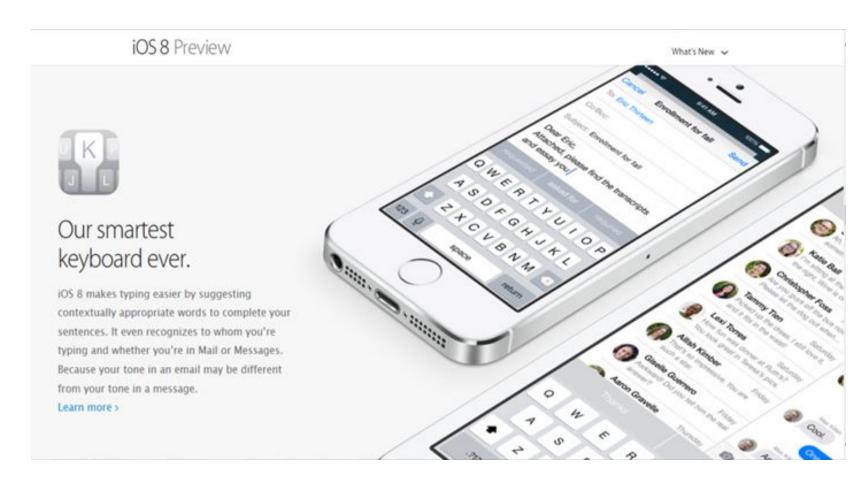




What's New In AT!



Typing made Easier









Reminders



- Built-in App
- Works with VoiceOver
- Organize your reminders
- Siri
- iPad



TapTapSee

- Designed to help people with low vision identify objects they encounter in their daily lives.
- Double tap the screen to take a photo of anything, at any angle, and hear the app speak the identification back to you.
- Requires VoiceOver to be turned on.





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





FitBit

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







Microsoft Band

- Works across all platforms
- Receives calls and texts
- Uses Cortana
- Keep tracks of steps
- Keeps track of Sleep
- Keeps track of UV
- Keeps track of heart rate
- Choose apps
 - Facebook
- \$199







T. Jacket

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







Amazon Echo



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



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





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







APPS for Mood/Emotion Management

- Self-Help for Anxiety Management(SAM) (free iOS, Android)
 - Tell the app how you're feeling, how anxious you are, or how worried you are.
 - app's self-help features walk you through some calming or relaxation practices.
- iZen garden (\$4.99, iOS)
- Koi Pond (\$1, iOS)





Relax Melodies: Sleep & Yoga

FREE!

iOS and Android

- Relax Melodies is the LEADER in personalized relaxation and sleep assistance. No more lacking of sleep or insomnia for you! The sleep that you need and want is waiting for you. Relax Melodies and its many features such as high quality white noise sounds, music melodies and complete customizable mixes will help you sleep like never before!
- Here's how it works :
- 1. Create a sleep mix by selecting sounds and music that you like.
 - 2. Slip naturally into a relaxed state or a deep sleep...!
 - 3. Awake, feel refreshed and happier
 - 4. Do it again, anytime!
- Use it also in many other situation such as while exercising, during your yoga meditation sessions, while massaging, during a quick nap or even to help your baby fall asleep faster!



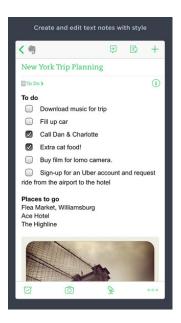


Task Management

- Evernote (free, iOS, Android, Windows)
 - allows you to store text, photos, and audio notes on your device of choice. Create "notebooks" and categorize notes for meetings and to-do lists. Notes are tagged with geo-location for mapping or search. Keep all info in one place
- 30/30 (free, iOS, Android, Windows)
 - Set up tasks and time needed to complete
 - App will tell you when to move onto next task









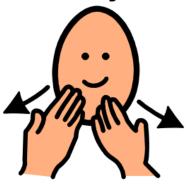


My Question to You: What have You Learned today?





thank you





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Disclaimer

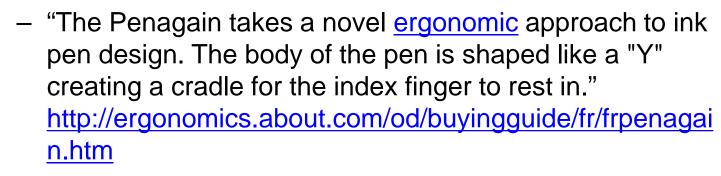


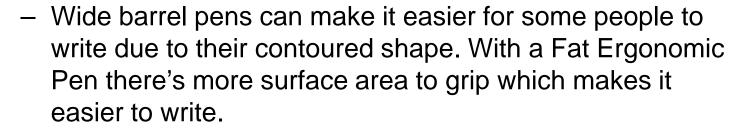
Additional Info for You!



Low Tech Solutions

Writing Solutions:











Considering No/Low Tech to High Tech







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





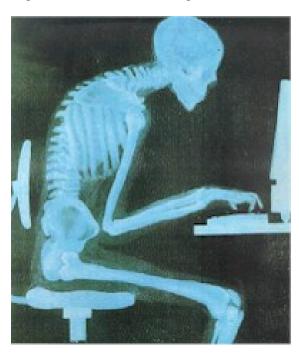
Human Activity Technology (HAAT) Model

- 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
- <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



Ergonomics

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





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





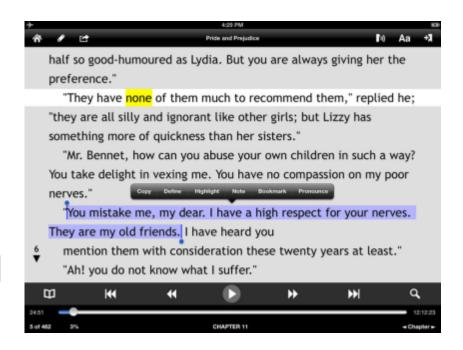




Voice Dream

- 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
- \$9.99



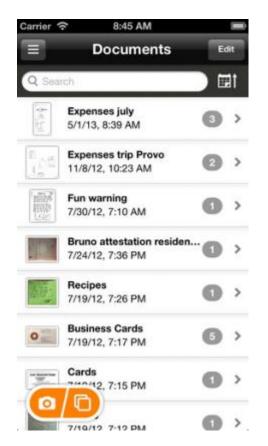






Genius Scan

- 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







Easy Mode

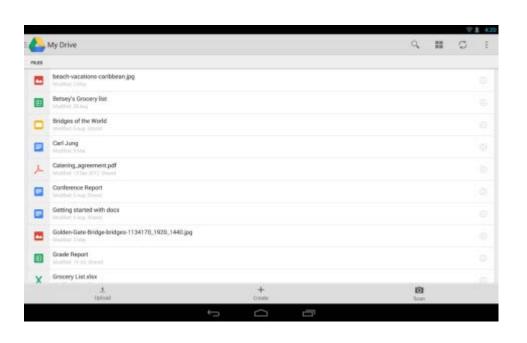
- In Settings under Home Screen Mode
- Has three home screens
- The main home screen has non removable widgets for the time, date, and weather. You will also find six apps to choose from that have much larger icons
- The left home screen is dedicated to calling
 - Can select up to nine contacts

- The right home screen includes 9 apps that you can customize to whatever you want
- Still have an app drawer
 - All apps are spelled out and in alphabetical order.
- The settings menu and camera interface is also simplified





Google Drive



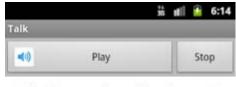
- Upload photos, videos, documents, and other files and access wherever you go
- Share photos and files
- Make files available off-line
- Scan documents with device camera
- Up to 15 GB of storage
- Free





Talk Text to Voice

- Convert text to voice using the Text-to-speech engine on your smartphone
- Allows importing web pages directly from the browser to listen to them
- Can also import selected text from other apps



Hello! I can read anything for you! :)





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





Voice Input Solutions

Speech Recognition Software

 Turn spoken words into text

Accessibility for All

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





Word Q/ Speech Q

- Software that has built-in word prediction
- Suggests words
- Spoken feedback to hear what was written
- Speech Q is a plugin for Speech Recognition

30 day free trial
 http://www.goqsoftware.
 com/trial/

