



Understanding Apps and Tablets Accessibility: Back to the Basics

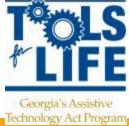
Carolyn Phillips and Martha Rust Tools for Life <u>www.gatfl.org</u> www.amacusg.org

National LDA Anaheim, Ca February 2014



Agenda

- Understanding the Difference between
 Android & Apple
- Closer Look at Tablets
- Considering Accessibility
- Access the Tools For Life AppFinder
- Exploring a Few of Tools for Life Favorite Apps





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.



Accessibility Made Smart

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

AMAC

- 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 <u>www.amacusg.org</u>



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
 - <u>www.gatfl.org</u> 12,000 unique visitors a month





Android & Apple



inclane, tesh-loving and ultra-portable.







- June 2007- 1st iPhone
- Sept 2007- 1st generation iPod Touch
- October 2008- 1st Android phone sold
- April 2010- 1ST iPad
- 2010- Google launched its Nexus series of tablets and smartphones
- 50 billion downloads!





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



Which One???





LET'S TAKE A LOOK AT SOME OPTIONS





Microsoft Surface

- Windows 8
- Slim and has a USB port
- Moveable Tiles
- Built-in Accessibility
 - Speech-to-text
 - Narrator
- Thin pressure sensitive cover that doubles as a keyboard
- Starts at \$349







Samsung Galaxy Tab 3



- Android System
- 7, 8, or 10 in screen
- Camera
- Micro card
- Wi-Fi
- USB for computer
- Some built-in accessibility app
 - Download others
- Starts at \$199.99



Nook HD



- eBook Reader and mobile tablet
- No Camera
- Access to shop both Google Play Store and Barnes and Noble
- Purchase apps
- Starts at \$129







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



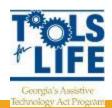




Apple iPad/ mini iPad

- 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





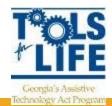




Apple iPod Touch

- 5 Megapixal Camera
- Millions of apps
- Videos
- Surf Web
- Voice Over
- Organization
- Speakers
- Bluetooth
- New iOS 7
- Starts at \$299 / \$199 4th gen





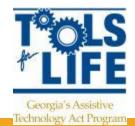


Refurbished Tablets

- 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









CONSIDERING ACCESSIBILITY









Comparing Tablets

Property	Android	iOS	MS Windows	Amazon Kindle	Barnes and Noble Nook
Number and variety of Tablets	Over 11,000	iPad and iPad mini	Several	Kindle Fire and Fire HD	Nook HD
Operating System	Android (Jelly bean)	ios7 (Sept 18, 2013)	Microsoft Windows 8	Modified version of Android ICS	Modified version of Android- Microsoft bought 2013
Apps	860,815 (AppBrain.com updated 9/13/13)	900,000 with 375,00 optimized for iPad/mini (mobileburn.com updated June 2013)	104,917 (winbeta.org updated July 4, 2013)	50,000 in Amazon App store also shop in Google Play Store (theverge.com updated August 2013)	10,000 in Barnes and Noble and have access to Google Play store (barnesandnoble.co m updated August 2013)
Software Updates	As it becomes available on Google	Apple releases updates	MS releases updates	Amazon releases updates	Barnes and Noble releases updates
Interface	As designed by manufacturer	Icons and widgets designed by Apple	Metro style designed by Microsoft	Modified version of regular Android	Modified version of regular Android

www.bluebugle.org updated by TFL 2013



Layout of the iPad





Built-in Accessibility Features

- VoiceOver
- Zoom

Accessibility for All

- Large Text
- Invert Colors

 (white on black)
- Speak Selection
- Speak Auto Text
- Mono Audio
- Assistive Touch
- Guided Access
- Home-Click Speed
- Incoming Calls
- Braille Displays

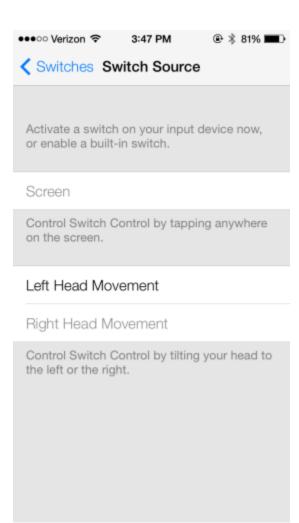






New iOS 7 Features

- September 2013
- Automatically turn on captioning and subtitles
- Switch Source under Accessibility
 - Allows user to control devices by head movement



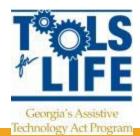




VoiceOver

- Standard feature on iPhones, iPads, and iTouches
- World's first gesturebased 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







Assistive Touch

- Lets you enter Multi-Touch gestures using one finger or stylus
 - Create custom gestures
- Supports the use of adaptive input devices
 - Headsets and switches
- Change Tracking Speed







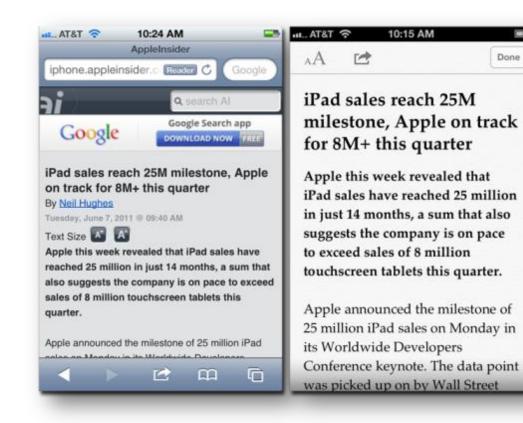
- Go to General => Keyboard and make sure Shortcut is turned on
- Go to Add New Shortcut
- Put in your Phrase
- Create Short Cut
- Example:
 - Phrase : Martha E. Rust, MS CRC ATP
 - Shortcut is: MER
 - So when MER is typed it will put in the above Phrase
 - OMW => On My Way!







Reader for Websites



AMAC

- Read articles and web pages without distractions
- Clutter disappears
- Add link into Reading List and finish later







Guided Access

- Helps remain on task and focus
- Limit to one app / turn off home button
- Restrict touch input on certain areas of the screen









Surface

- 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





Layout of Surface

- Power Button
- Camera
- Speaker
- Micro USB-
- USB -
- Charger—
- On Left Side
 - Speaker
 - Headphone Jack
 - Volume control



Accessibility of Surface

- Uses Windows 8

 Ease of Access
- Narrator
- Magnifier
- On-Screen
 Keyboard
- Windows Speech
 Recognition





Some Surface Apps

- Maluuba



- Apollo
 - Can be a calendar
 - See when the sun sets and rises



- **Barcode Generator**
- Personal assistant app Free way to create your own barcodes







• Volume Head phones Ling • Power D. Books or a Home Keyis Magnokneerer • Charger





Nook HD

- Download Books and Movies
- Access to Barnes and Noble Store
- Access to Google Play Store
- No Camera
- Does not read books out loud

- Note taking features
- Can Change:
 - Font
 - Line Spacing
 - Text Size
 - Background color



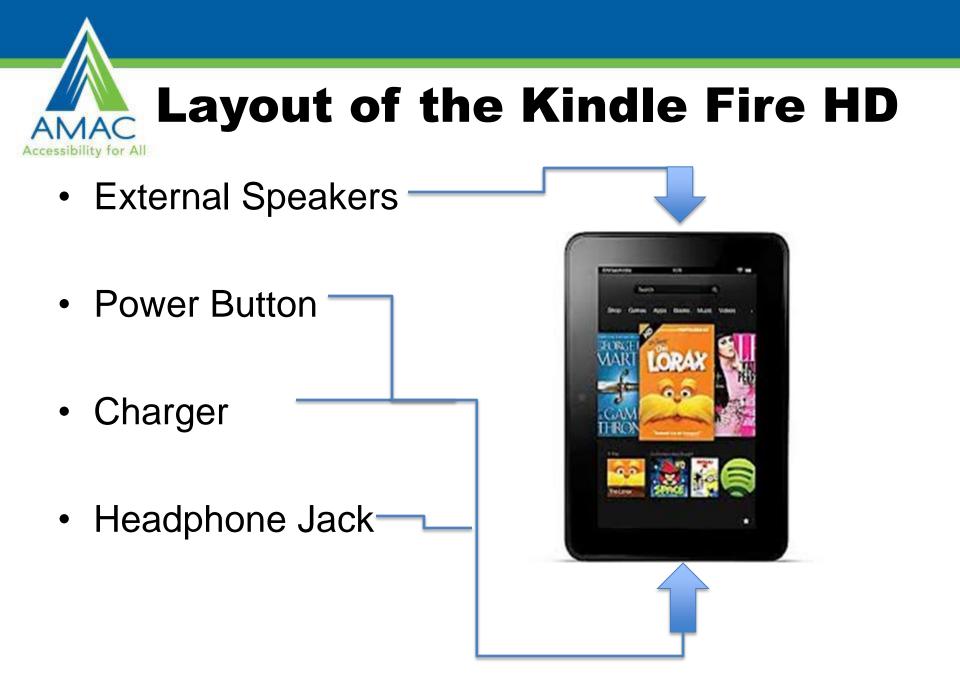


Kindle Fire HD/HDX

- 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









Android Tablets

- Accessibility features are not built in
 - Talkback, Kickback, and Soundback
 - Gesture Feature in Jellybean
 - Eyes free keyboard
 - IDEAL Web Reader for internet
 - No zoom or contrast right now
- What operation system is tablet running
 - Jellybean, Ice cream sandwich, Honeycomb, Gingerbread
- Google Play Store to buy apps
 - Must have Gmail address
 - Can use Amazon gift cards
- Not the best to use with someone who has low vision and/or blind or cognitive disabilities





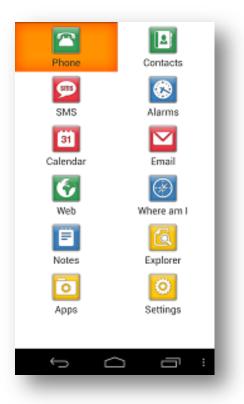


Accessible Android Apps

- Big Launcher- icons look darker and text is larger
- Vlingo Virtual Assistant and iris. (alpha)voice command apps
- Text to Speech Toy- Text-to- Speech
- Eyes-free keyboard

essibility for All

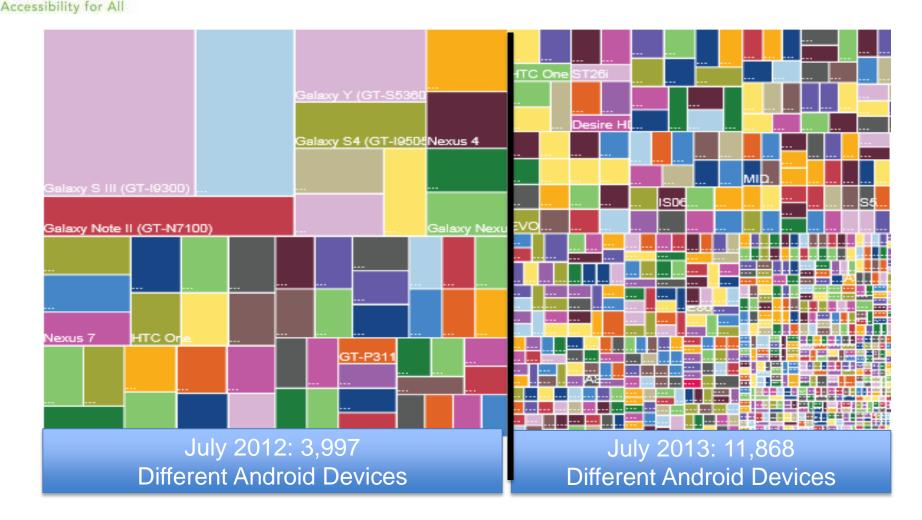
- IDEAL web reader
- Code Factory Mobile Accessibility Suite for AT&T users
 - 12 different apps / 30 day free trial -\$99
- www.androidaccess.net







Android Device Fragmentation



July 30, 2013 <u>http://www.ign.com/articles/2013/07/30/heres-what-android-fragmentation-looks-like</u> *Ben Satterfield*



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



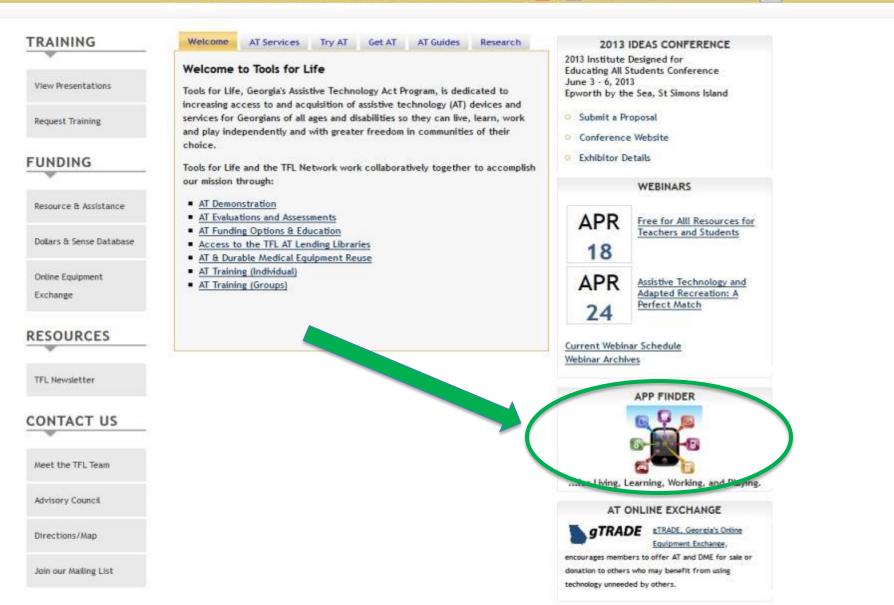


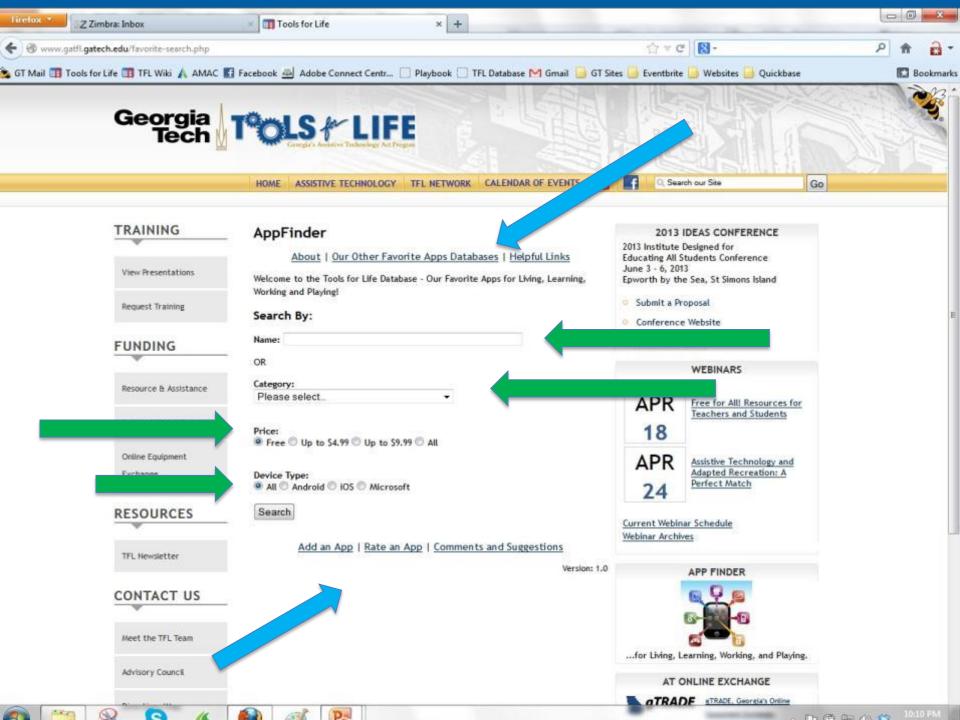
HOME ASSISTIVE TECHNOLOGY TFL NETWORK CALENDAR OF EVENTS

EVENTS

Search our Site

Go







	HOME ASSISTIV	E TECHNOLOGY TFL NETWORK C	ALENDAR OF EV	ENTS	f Q.Se	earch our Site	(
RAINING	My Favorite	e Apps			Construction of the Alle	3 IDEAS CONFERENCE e Designed for	
iew Presentations	You searched for:	Learning, Cognition, and Development	al			Students Conference	
in reservations	Logo	Name	Category	Device Type		the Sea, St Simons Island	
est Training		tango Video Calls Tango brings you free, high-quality	Learning,		 Submit a Conferen 	Sector Sector	
IDING		mobile voice and video calls over 3G and Wi-Fi! Millions of people around the world are using Tango	Cognition, and Developmental	iOS	O Exhibitor	De tails	
	No Ratings	in an exciting new way. It				WEBINARS	
source & Assistance llars & Sense Database	app icon	i-promt Professional Tele-prompting software for your iPhone or iPod	Learning, Cognition, and	iOS	APR 18	Free for All! Resources for Teachers and Students	3
ntine Equipment	No Ratings	Touch.	Developmental		100000000000000000000000000000000000000		
hange	no naungs				APR	Assistive Technology and Adapted Recreation: A Perfect Match	
OURCES	DRAGON	Dragon Dragon Dictation is an easy-to-use voice recognition application powered by Dragon	Learning, Cognition, and Developmental	iOS	24 Current Web Webinar Arcl	inar Schedule	
lewsletter	****						
ITACT US	5 stars by 1 user					APP FINDER	
eet the TFL Team		iBooks iBooks includes the iBookstore, where you can download the	Learning, Cognition, and	iOS	for Living,	Learning, Working, and Playing	g.
sory Council		latest best-selling books or your favorite classics	Developmental		AT	ONLINE EXCHANGE	
ctions/Map	No Ratings				g TRA	Equipment Exchange,	
n our Mailing List		Say Text SayText reads out loud the text in the image. It is intended for the	Learning,	1000	donation to othe	nbers to offer AT and DME for sale or ers who may benefit from using eded by others.	

Cognition, and iOS

Developmental

visually impaired users. SayText is

a free spin off product from the

DocScanner team.





0



SOME OF OUR FAVORITE APPS!



TOLS FLIFE Georgia's Assistive Technology Act Program



Talkadroid!





- Free
- Type in what you want to say
- Save and load your favorite phrases
- Download and use 35+ Premium SVOX voices
- Create custom ring
 tones and alarms



Fat Cat Snappy Chat



- Designed to keep conversation going
- Real voice to provide 160 phrases
- Geared to casual conversations of kids
- Quick snappy comebacks
- Integrates with your email, Twitter, instant messaging, and texting

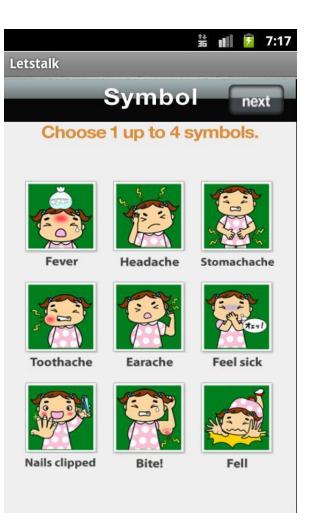




LetsTalk



- Android
- \$3.99
- make the original icons with a microphone and camera functions
- focused to express basic requests
- 2 Modes
 - Supportive Mode
 - Self- Use Mode







ClaroPDF



- Accessible Pro PDF Reader and Viewer with text to speech (TTS) and annotations
- Read with human quality voices
 – 40 different voices
- Can change background color
- Supports VoiceOver

	Ø		£33			Pri	de ai	nd Prejudice-1	Φ	Ê
Ŧ •	т	Ę	0	0-	*	[]]	0	Edit	5 0	Done

o good-humoured as Lydia. But you are always giving *her* the preference."

"They have none of them much to recommend them," replied e; "they are all silly and ignorant like other girls; but Lizzy has omething more of quickness than her sisters."

"Mr. Bennet, how *can* you abuse your own children in such a way? You take delight in vexing me. You have no compassion for my poor nerves."

"You mistake me, my dear. I have a high respect for your nerver They are my old friends. I have heard you mention them with consideration these last twenty years at least."

"Ah, you do not know what I suffer."

Page 6 / 516

"But I hope you will get over it, and live to see many young men of four thousand a year come into the neighbourhood."

"It will be no use to us, if twenty such should come, since you will not visit them."

"Depend upon it, my dear, that when there are twenty, I will visit them all."

Mr. Bennet was so odd a mixture of quick parts, sarcastic humour, reserve, and caprice, that the experience of three-and-twenty years had been insufficient to make his wife understand his character.



Voice Dream

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

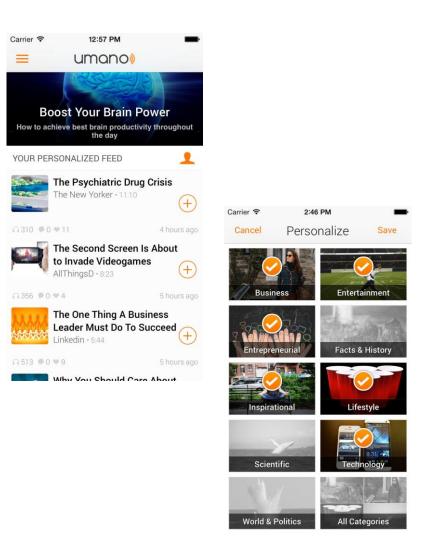
- Download for later reading
- \$9.99

≁				4:29 PM				F 3)
ŝ	e 🖻		1	Pride and Prejudice		(i)	Aa	+J
	half so s prefere		ired as Lyc	lia. But you	are alway	/s giving her	the	
	"They	' have <mark>none</mark>	of them n	nuch to rec	ommend t	hem," replie	ed he;	
	"they ar	e all silly a	nd ignoran	t like other	girls; but	Lizzy has		
	somethi	ng more of	quickness	than her si	sters."			
	"Mr. E	ennet, how	/ can you a	abuse your (own childr	en in such a	way?	
	You take delight in vexing me. You have no compassion on my poor							
	nerves."	Сору	Define High	nlight Note Bo	okmark Pronour	nce		
	' <mark>You ı</mark>	nistake me	, my dear.	I have a hi	gh respect	for your ne	rves.	
	They are	e my old fri	ends. I ha	ve heard yo	u			
6	ment	ion them w	ith conside	eration the	e twenty	years at lea	st."	
•	"Ah! y	you do not l	know what	: I suffer."				
	Φ	M	*	\mathbf{b}	••	₩	C	L
24:51	_						1	2:12:23
5 of 4	62 3%			CHAPTER 11			⊲ Cha	apter ►



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



U»



BARD Mobile





National Library Service for the Blind and Physically Handicapped Navigation Skippable (NLS) Bookmark Must be registered **INTRODUCTION by Tony Walton** Settings PART ONE Hickory: Adventur... PART TWO Squire of Sunnym...

Free

Can use with braille display

Access directly to the

- http://www.loc.gov/nls/find .html

CHAPTER SEVEN A Fateful...

CHAPTER EIGHT "His Nam...

CHAPTER NINE The Third...

PART THREE Kemp at Work...

ACKNOWLEDGEMENTS

Two seeing ey...

Contents

PROLOGUE

Darwin Wallet





- Uses the camera to determine the currency
- Hold the bill in front of the phone's camera and the app will speak its value
- Free





Magnify



Г	Amount Pr
Folic Acid	400 mc
Vitamin B ₁₂	25 mc
Biotin	30 mc
Pantothenic	Acid 15 m
Calcium	120 m
	5 N
	VIEW SPECIAL OFFERS NOW)

- FREE
- Turns Android phone into a digital magnifying glass with built-in flashlight
- Can use gestures anywhere on the screen:
 - Double-tap: Zoom out/in
 - Single-tap: Focus
 - Long-press: Turn light on/off

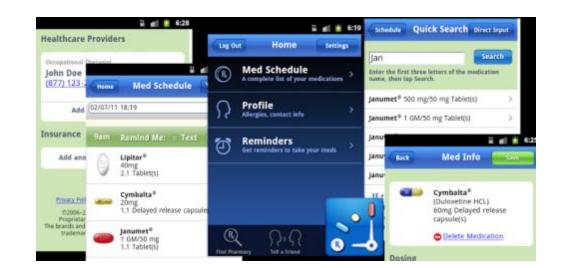




MyMedSchedule



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





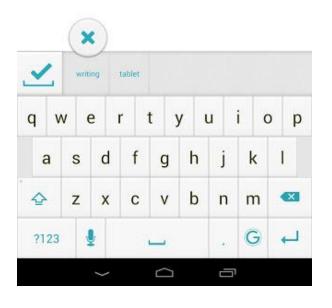


Ginger App



- 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

Compose	SEND	-
То	+ C	сласо
Subject	-	Ļ
I'm writen on my tablt!!		







- 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

Payment Due	۰ +
al Poyments Due	\$3,400 \$1,43
Housekeeping Manual Bill	\$8
Due 2 days ago	Pay
Chase Credit Card (5421)	\$1,559
Due in 9 days	Pay
PG&E (Pacific Gas and El., successry	\$83
Due in 2 weeko	Pay
San Antonio Water Syste Bilb/Dilley (9584)	\$75
Due 3 weeks	Pay
Rent E	\$500
6 0	Ē









Perfect OCR





\$3.99

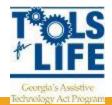


Uses the built in camera to scan documents

Edit, copy, store, email documents

Upload to online storage is as Evernote

Does take practice for picture

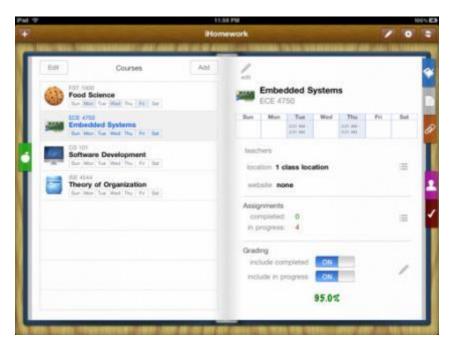






iHomework





- Keep up-to-date with your school work, grades, todo'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

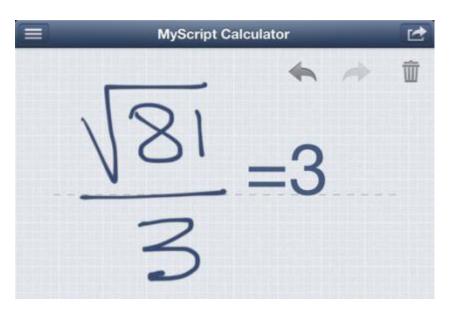






MyScript Calculator





- Use your handwriting to write any arithmetic formula
- Write and calculate mathematical expressions in with no keyboard
- Scratch-out gestures to easily delete symbols and numbers
- Portrait and landscape operation
- Redo and undo functions







Money Counter Calculator

- iPad only
- Enter amount of coins and dollars and total is provided
- Free

essibility for All

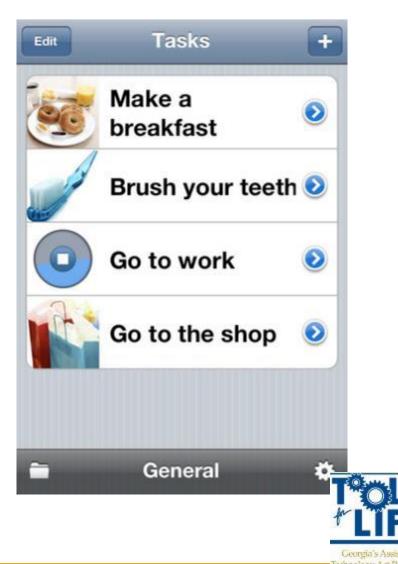






Picture Scheduler

- Create visual tasks with attached audio, video or picture
- Tasks can have alarms
- Alarms can be repeated daily, weekly, monthly or you can select specific weekdays
- Tasks can be organized into categories with a picture
- Can hide task and reveal later



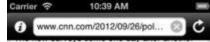






WebReader





batch of battleground state polls also suggested Obama with the advantage.

The fresh batch of polls in Ohio, Florida and Pennsylvania, which together account for 67 electoral votes, were saved by Quinnipiac University/CBS News/New York Times and Franklin and Marshall College.

They were conducted after the release last week of secretly recorded clips from a May fundraiser during which Romney casts Obama supporters as dependent on government. The story dominated coverage of the race last week.

Fresh polls give Obama the advantage in four crucial battlegrounds

Voters in the three states questioned in the Quinnipiac survey said they saw Obama as better for handling the economy, health care, Medicare, national security, international crisis and immigration. Romney tied or edged ahead on dealing with the budget deficit.





- A A A (resize font)
- (CNN) New polls in three swing states indicate President Barack Obama exceeding 50% support among likely voters and holding leads of nine to 12 points over Republican nominee Mitt Romney.

Fueling those numbers, the four polls suggest that Romney has lost his edge on the economy, an issue on which the challenger has based his campaion.



- Text to speech technology for reading web page content
- Web pages can be read as soon as they are loaded or use Cut, Copy, & Paste to read only sections of webpage
- Highlights as it reads text
- Speaking rate control available
- \$1.99



iWordQ



- App version of Word Q software
- Not available with SpeechQ right now
- In context word prediciton
- Dictionary
- Text-to-Speech
- Dropbox
- Saves documents







Say it & Mail it Pro



	Lanes (gents)	
	Karen MiltS Message	
	News Reporting	
	Rich (Email)	
	Rich MMS Message	
	Email Is a Group or Ferentie	
	Cannel Mail 8	
Your entrail with Note: You cart is group of ter Then advan yo person.	c email to a group, you are actually emailing to one to to have a combination of groups and individual level	vertte

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





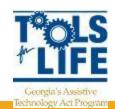
LookTel Money Reader

• iOS App



- \$1.99
- Uses camera
- Speaks out loud
- Do not need to hold bill steady or in entire frame







Voice Pad



- 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











- Kurzweil 3000
- Need web license
- Read text out loud
- 4 voices
- Upload Universal Library
- Mobile access for sharing



iWriteRead



		10.00		No Draging W
RealWrite	The second second	 • • • • • • 	0.6	1.0
	Headlittle Last	skal color highlighted and	to speech to help you	understand

Spelichecking	1		¥	> = (())	36	A= 0
physics.	۰.	-		s you know if you've r	Yester Dates	22.222
Fishe's		phonetic erro	ris in wo	ords such as "fand", an	d suggests correction	
Wessex		identifies sin	Har soul	nding and confusable	words.	
Neces	Þ					
viscose						
viscous						
Vecquez						

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





Voice Reader



Voice reader Welcome to Voice Reader To enable me to read to you, simply tap

this field and copy or type the requested text into the window that will appear. In addition I can read text and PDF files, even if they are stored in other

apps! Naturally file synchronization through iTunes is supported.

Are yo	ou ready	?		
6	\$		٠	Q



- Copy and paste text into the app or drag text in using iTunes file sharing feature, then play back or email the resulting audio file.
- 32 Voices to Choose from
- Can open PDFs and Text Files





iZen Garden



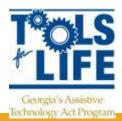
- Choose from 100s of objects, plants and creatures to place in your garden
- Rake the sand and share your creations
- Helps you to center your mind, relax your psyche and relieve your stress





Talk with Us!

What are Your Favorite Apps?







Our Question to You: What have You Learned today?









Georgia's Assistive Technology Act Program

Carolyn Phillips

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

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

Disclaimer

This presentation is produced by Tools for Life which is a result of the Assistive Technology Act of 1998, as amended in 2004. It is a program of the Georgia Institute of Technology, College of Architecture [COA], AMAC and is funded by grant #H224C030009 of the Rehabilitation Services Administration (RSA), Department of Education. The contents of this presentation were developed under a grant from the Department of Education. However, those contents do not necessarily represent the policy of the Department of Education, Georgia Tech, COA or AMAC and you should not assume endorsement by the Federal government.