

Discover the Accessibility Features of Smartphones!

A Wireless Education Workshop
For Consumers with Cognitive
Impairments

Who We Are



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CATO, AT&T

Wireless Rehabilitation Engineering Research Center

Our mission is to research, evaluate and develop innovative wireless technologies and products that **meet the needs, enhance independence, and improve the quality of life and community participation** of people with disabilities.



AT&T's Corporate Accessibility Technology Office

The **Corporate Accessibility Technology Office (CATO)** leads AT&T's efforts to address the needs of persons with disabilities in the design and development of products and services across the enterprise. CATO partners with each business unit to advance AT&T's efforts to comply with all accessibility laws for all products, services, applications and networks affecting the business. Building on AT&T's legacy, CATO promotes technology that is accessible by all and fosters innovations which improve the lives of our customers.

Why are we here?

- Collaboration between Wireless RERC and AT&T Foundation
- # 1 Goal - Help you use your devices more effectively!
- We want to help you:
 1. Understand which popular smartphone platforms and Operating Systems (OS) might best fit your needs
 2. Leverage built-in accessibility features in those OS's
 3. Experience the latest accessible consumer-based wireless technologies
 4. Alleviate issues with your own devices, or learn something new

Agenda

- Presentation (60 minutes):
 - General overview of devices
 - Review built-in smartphone accessibility features:
 - » Apple's iOS, Google's Android, Windows Phone 8
 - Review accessibility resources
- Break-out sessions (30 minutes)
 - Device showcase & small-group coaching sessions
 - Closing questions

General Hardware Overview

Four device categories:

1. Smartphone
2. Phablet
3. Tablet
4. Quick Messaging Device (QMD)

Apple's iOS 7 General Overview

- Controlled ecosystem of hardware, software and “cloud” services
 - iPhone, iPad, iPod
 - App Store, iTunes, iBooks, iPhoto, iCloud
- Transferable skills between devices
- Greatest number of apps

Google's Android 4.4 (Kit Kat)

General OS Overview

- Largest market share
- Open source
- Many “flavors” of OS affects uniform accessibility performance across OS versions
- Tight integration with Google services
 - Gmail, Google+, Hangouts, Drive
- Often less expensive than iOS devices
- “Widgets” provide custom functionality and shortcuts to apps
- Manufacturers overlay their own “skin”

Accessibility Features

Learning New Apps

Apple iOS

Guided Access

Guided Access

- Restriction to a single app
- Let's user learn how to use app before more apps can be introduce
- Limits cognitive load

Enable Guided Access

Steps to enable Guided Access:

1. Settings
2. General
3. Accessibility
4. Guided Access

Accessibility Features

Virtual Assistants

Apple iOS

Virtual Assistant

Apple – Siri

- Virtual Intelligent Assistant and Voice Control
- Integrated with AssistiveTouch so you don't have to physically tap Home button
- Can be used with Bluetooth headsets
- Voice recognition can be an issue for users with speech impairments, especially for users that may be on ventilators

Apple – Using Siri with AssistiveTouch

Steps to access Siri with AssistiveTouch:

1. Select AssistiveTouch menu button
2. Select Siri

Google Android

Virtual Assistant

Google Now and Ok Google

- Intelligent Virtual Assistant
- Accessed by:
 - Google Search Bar
 - Swiping Up on home screen inside any app

Accessibility Features

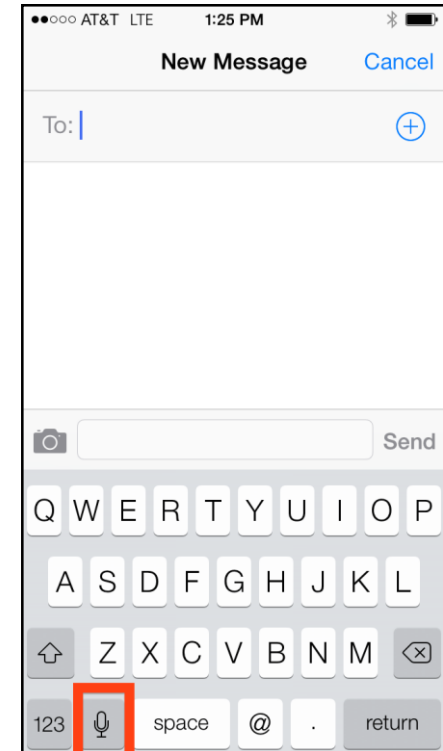
Dictation

Apple iOS

Dictation

Apple - Dictation

- Microphone icon on keyboard
- Allows you to speak:
 - Emails
 - SMS/Text messages
 - URLs for web browsing
- Only available in some applications



Google Android

Dictation

Android Dictation

- Microphone icon on virtual keyboard
- Allows you to speak emails, SMS/Text messages, and URLs for web browsing
- Only available in some applications



Accessibility Features

Video Calling and Text Messaging

Apple iOS

Video Calling

Apple FaceTime

- Video call app
- Allows users to be visually prompted to be reminded of, or to complete, tasks

Access Apple FaceTime

Steps to access FaceTime:

1. FaceTime App
2. Select Contact
3. Select FaceTime menu item

Apple iOS

Text Messaging

Apple - iMessages

- Texting app
- Unlimited free texts between iOS and Mac users
 - Photos, videos, locations
 - Synchs between all iOS devices you may own

Access Apple iMessages

Steps to send text message:

1. Messages App
2. Access Contact List (top right corner)
3. Select from Contact List
4. Select “Send” after message typed

Google Android

Video Calling and Text Messaging

Android - Hangouts

- Allows one-on-one or group conversations
 - Supports text and video calling
 - Available on computers, Android, and iOS devices
 - Integrated with your Google account
 - Share photos and locations
- Allows users to be visually prompted to be reminded of, or to complete, tasks

Access Video Calling using Hangouts

Steps to access Video Calling using Hangouts:

1. Select Hangouts app
2. Access Contact List (top right corner)
3. Select from Contact List
4. Select Camera icon (top right corner)

Accessibility Features

Widgets

Android Widgets

- Screen customization
- Provide "at-a-glance" view of an app's most important data
- Can be moved, sized and information tailored to users needs

Access Android Widgets

Steps to access Widget:

1. Select Apps icon on homescreen
2. Select Widget menu (top center)
3. Select preferred Widget

Accessibility Features

List Makers and Reminders

Android Google Keep

- Note-taking app
 - Text & Voice notes
 - Integrate photos into note
 - Color code
- Reminded through Google Now

Access Google Keep

Steps to access Google Keep:

1. Select Apps icon
2. Select Keep app
3. Select from a choice of new note, list, recording, or photo

Accessibility Features

Near Field Communications (NFC)

Google's Android Near Field Communications (NFC)

- Tap two NFC-enabled devices to share:
 - Photos, Websites, Files, and Contacts
- Environmental or other access control
 - Tapping to pay at convenience stores
 - Use technology for opening doors without keys
 - Thermostat temperature adjustments

Access NFC

Steps to enable NFC:

1. Select Settings
2. Select More...
3. Select NFC

Accessibility Resources

Online Resources for Accessible Apps

- Each OS's app store
 - [Apple's App Store \(www.itunes.apple.com/us/genre/mobile-software-applications/id36?mt=8\)](http://www.itunes.apple.com/us/genre/mobile-software-applications/id36?mt=8)
 - [Google Play \(www.play.google.com/store\)](http://www.play.google.com/store)
 - [Windows Phone Store \(www.windowsphone.com/en-us/store/featured-apps\)](http://www.windowsphone.com/en-us/store/featured-apps)
- FCC Accessibility Clearing House
 - [FCC Accessibility Clearing House \(www.ach.fcc.gov\)](http://www.ach.fcc.gov)
- Global Accessibility Reporting Initiative (GARI)
 - [GARI \(www.gari.info\)](http://www.gari.info)

Additional Online Resources for Accessible Apps

- CTIA's Access Wireless
 - [CTIA's Access Wireless \(www.accesswireless.org\)](http://www.accesswireless.org)
- Tools for Life AppFinder
 - [Tools for Life AppFinder \(www.gatfl.org/favorite-search.php\)](http://www.gatfl.org/favorite-search.php)
- BridgingApps
 - [Bridging Apps \(www.bridgingapps.org\)](http://www.bridgingapps.org)

Online Resources for Wireless Accessibility Information/Products

- AT&T National Center for Customer with Disabilities (NCCD)
 - Specialized customer service representatives can assist with questions about alternate billing format such as Braille or large print, the [Directory Assistance Exemption Program](#), and questions about AT&T equipment, accessories, features, and services.
 - Voice calls: 1-866-241-6568; TTY calls: 1-866-241-6567
- AT&T Sales and Service Center for Disability and Aging- Wireline Services
 - Specialized customer service representatives can assist with questions about alternate billing format such as Braille or large print for wireline services, the [Directory Assistance Exemption Program](#), and questions about AT&T equipment, accessories, features, and services.
 - Voice calls: 1-800-772-3140; TTY calls: 1-800-651-5111
- Wireless RERC's list of online accessibility resources
 - [Online accessibility resources \(wirelessrerc.gatech.edu/node/365\)](http://wirelessrerc.gatech.edu/node/365)
 - Provides direct links to manufacturers & service providers accessibility sites
- Global Accessibility Reporting Initiative (GARI)
 - [GARI \(www.gari.info\)](http://www.gari.info)
 - Ability to compare device accessibility features
 - Filter by dexterity, seeing, hearing and cognition

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Take the “Exit” Survey

Please tell us what you think about this event!
We’re listening to your feedback!

[Survey Monkey](https://www.surveymonkey.com/s/Accessibility-Workshop)
[\(\[www.surveymonkey.com/s/Accessibility-Workshop\]\(https://www.surveymonkey.com/s/Accessibility-Workshop\)\)](https://www.surveymonkey.com/s/Accessibility-Workshop)

Final Questions?

Contact Us!

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