Georgia Tech Center for Inclusive Design and Innovation

Mobile Accessibility Overview

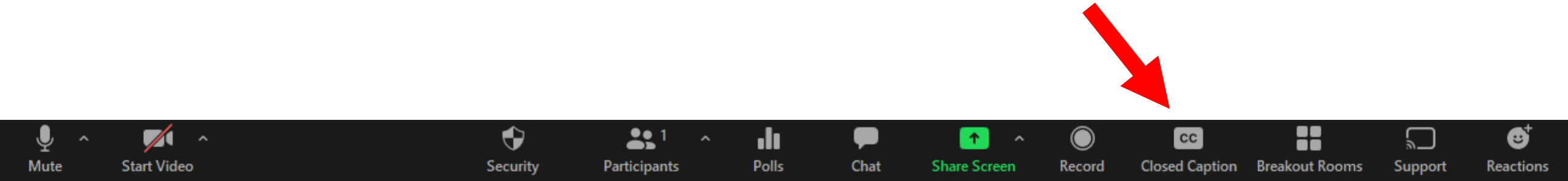
Presenters:

- John Toles
- Johan Rempel

Live Captions Provided

Two Options:

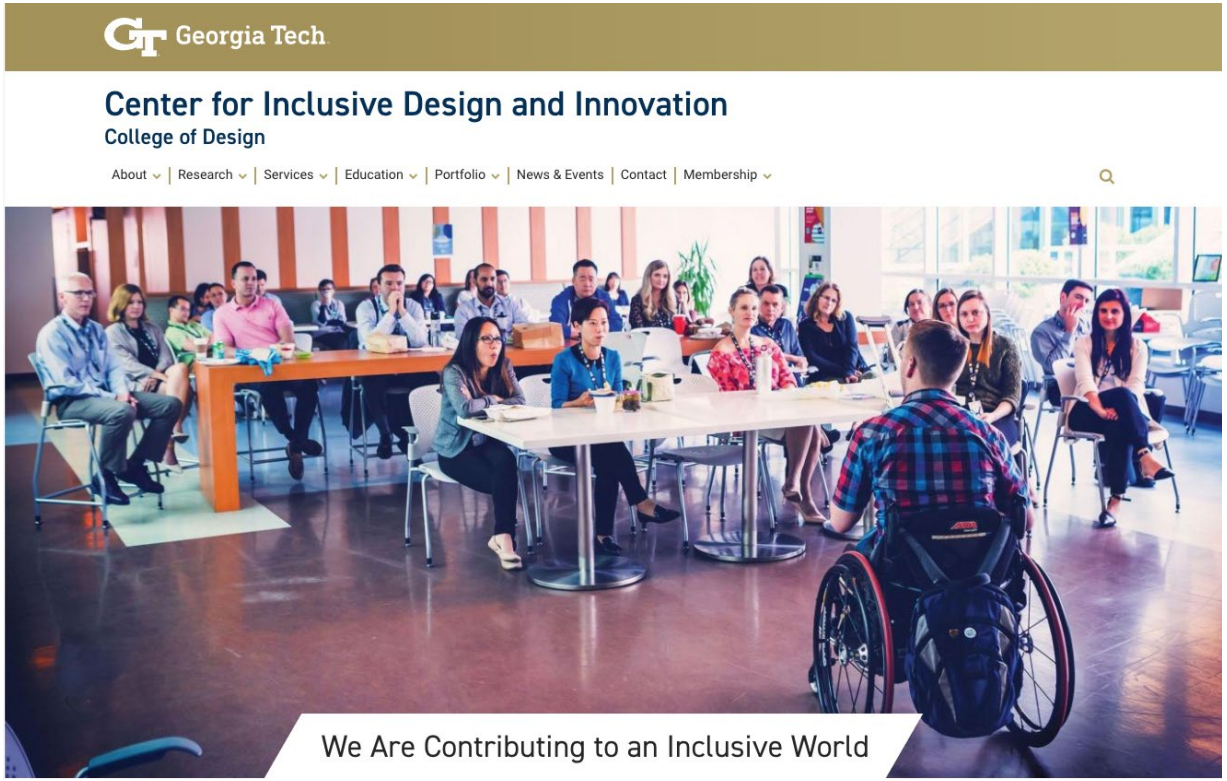
1. Access StreamText link available in the “Chat” (“Chat” control in Zoom toolbar)
2. Access the “Closed Captions” option (“Closed Captions” control with “CC” above it in Zoom toolbar)



Georgia Tech – CIDI

Georgia Tech Center for Inclusive Design and Innovation

- Research (disability-related)
- Accessibility Consulting – ICT and UX
- Braille Services
- Captioning and Described Audio Services
- Professional E-Text Producers
- Certified Assistive Technology Team
  - Tools for Life is celebrating 30 years of service in 2021!



Goals for Today's Presentation

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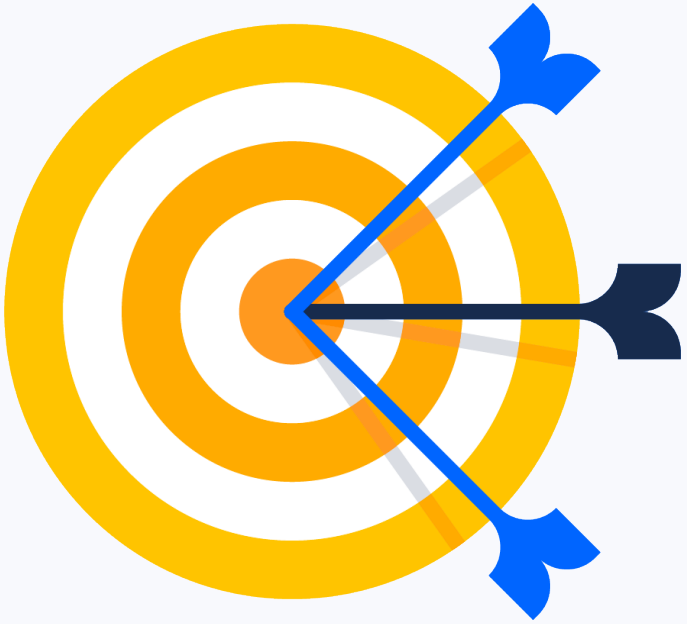
Upon completion of this webinar, participants will be able to:

1. Have a basic familiarity with the screen reader solutions available within iOS and Android
2. Identify two accessibility features within the iOS and Android platform that assist people with disabilities
3. Identify two resources available to increase familiarity with screen reading technology



Today's Presenters

Georgia Tech Center for Inclusive Design and Innovation

John Toles, Digital Accessibility Specialist, CIDI

John Toles has been employed with Center for Inclusive Design and Innovation (CIDI) since 2016. He provides technical assistance and services through the CIDI Customer Support team to Higher Ed institutions across the country. He also develops and maintains several of CIDI internal and public-facing applications and works closely with the ICT Accessibility team to provide web accessibility evaluations, technical assistance and training.

Johan Rempel , ICT-UX Quality Assurance Mgr

Johan oversees the UX/ICT Accessibility unit at Center for Inclusive Design and Innovation. He has extensive experience as an AT Specialist, Vision Rehabilitation Therapist, Orientation & Mobility Specialist, and Digital Accessibility Specialist. John oversees a number of Information and Communication Technology (ICT) Accessibility initiatives, including the AccessGA initiative.

Mobile More than Just Phones & Tablets

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- Car interfaces
- Videogame controllers
- Wearables
- Emerging Markets
  - Internet of Things
  - Web of Things

Web, Hybrid and Native Apps

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Native App

- as primary access point that does not rely on web browser

Hybrid App

- Simplified browser within app that accesses web content

Web App

- Accessed via a web browser

Mobile More Important Than Ever

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- Noisy Spaces
- Using One Hand
- Outdoor use in bright light
- Small-sized touchscreens
- Multitasking-Driving or Walking
- All Ages Using Mobile

The Bohemoths of the Mobile Arena

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United States Market Share

- iOS: 59.87%
- Android: 39.81%
  - Remaining <1% include Samsung, KaiOS and Windows

Worldwide Market Share

- iOS: 29.49%
- Android: 69.74%
  - Remaining <1% include Samsung and KaiOS

Source: StatCounter (January, 2022)

Legal Landscape

Mobile Accessibility and the Law

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- Precedent-Setting Cases
- Rapid Changes/Developments
- Challenges with Technology, Testing and Accessibility

Standards and Guidelines

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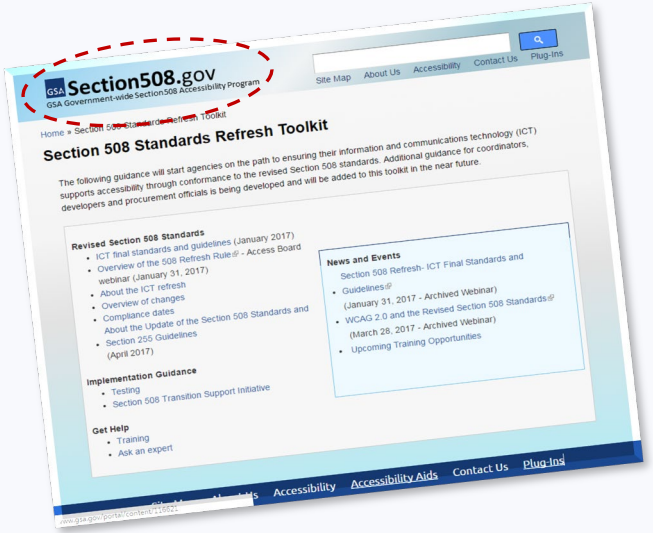
- WCAG 2.0/2.1
- Revised Section 508
- ADA
- CVAA



ADA based Website Accessibility Lawsuits

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2021 Lawsuits:

- 2,352 web accessibility lawsuits were filed against U.S. businesses in 2021
- 14.3% increase from 2020

Source: Accessibility.com

Overview of DOJ Settlements

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High Profile Settlements

Requirements

- WCAG 2.0 and 2.1 (Level AA) Applied
- Web Accessibility, which includes captioning
- Mobile Accessibility
- Appoint Web Accessibility Coordinator
- Adopt Web Accessibility Policy

Web Accessibility Settlements (Mobile)

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- Alberstons Digital Accessibility Settlement Agreement (2019)
  - WCAG 2.0 (Level AA)
- Patreon Digital Accessibility Settlement Agreement (2020)
  - WCAG 2.1 (Level AA)
- Discord Digital Accessibility Settlement Agreement (2021)
  - WCAG 2.1 (Level AA)

Source: www.lflegal.com

Mobile Platforms and Features

When Testing with Mobile

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Factors to Consider

- Analytics
- iOS/Android Versions
  - Available features in each
- Devices
  - Screen sizes and available features
- Bluetooth Keyboards

Common Mobile Accessibility Features

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- Screen Reader
- Magnifier
- Color Settings
- Text Settings
- Captioning & Video Description
- LED/Vibration Alerts
- Switch Control

iOS Accessibility Features

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- VoiceOver
  - Differences with Mac vs. iOS
- Zoom
- Color Settings
- Text Settings
  - Responsive Text

Navigating with VoiceOver

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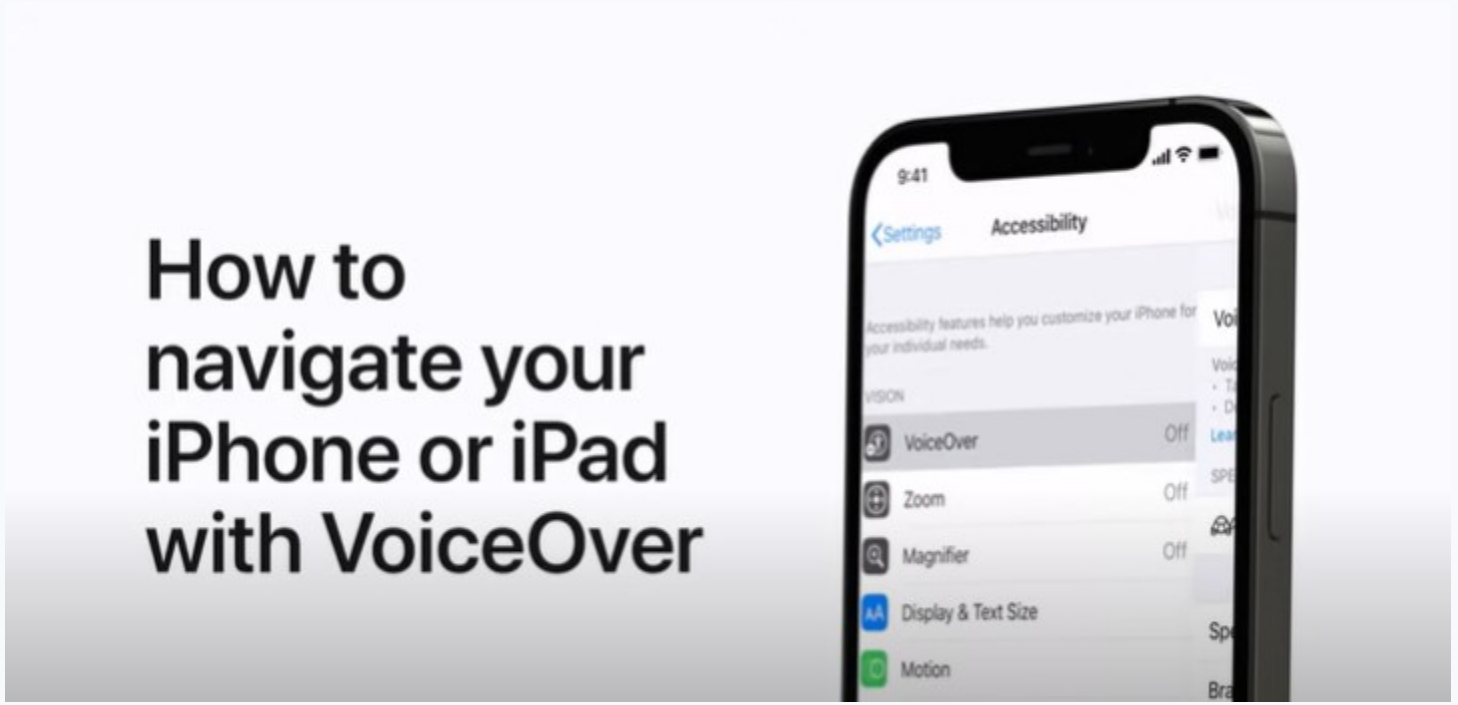

Video URL: https://www.youtube.com/watch?v=qDm7GiKra28

VoiceOver Features

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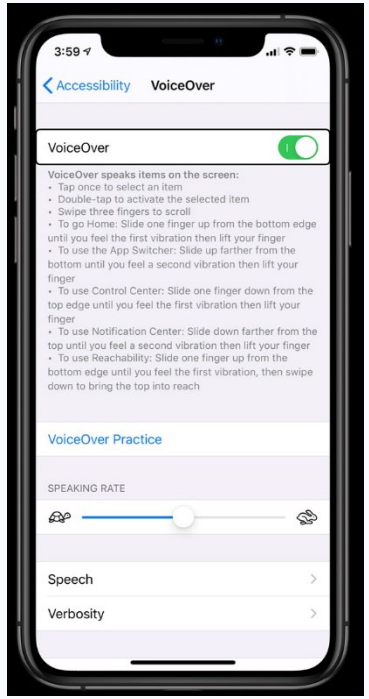
- Audio and Haptic feedback
- Focus visible as a black border on active item
- Unique gestures for common tasks
- Reads both screen items and text content



The Rotor

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- Used to set what on screen items you move between as you swipe
- Activate using a two-finger rotating gesture, like you're turning a dial
- You can customize the items in the rotor to give you access to your most desired features

VoiceOver Gestures

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- Single finger swipe - move between items
- Two-finger swipe up – read screen from the top
- Two-finger tap – pause reading
- Double-tap – activate selected item
- Two-finger scrub (“z” motion) - dismiss alert or return to previous screen

Learn VoiceOver gestures on iPhone

Android Accessibility Features

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- TalkBack
- Magnification
- Color Settings
- Text Settings
  - Lacks responsive feature

Android video

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Video URL: https://youtu.be/kgsIAoqWUpY

TalkBack Features

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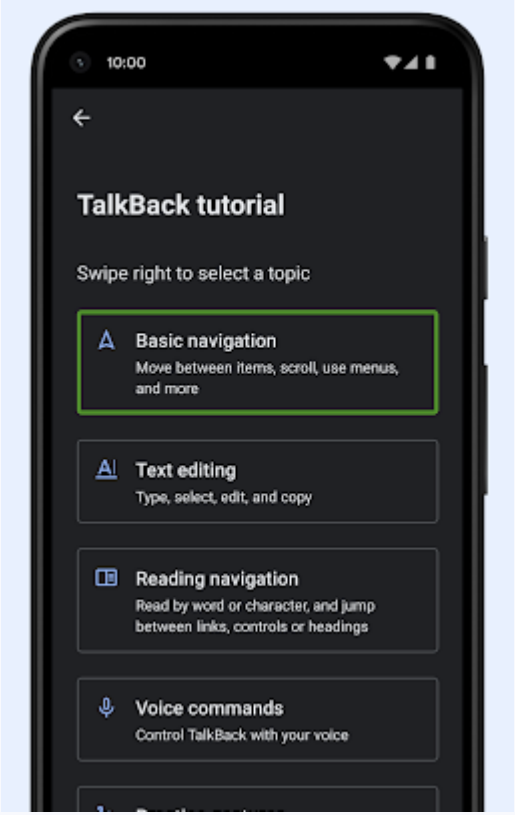
- Audio feedback with haptic feedback with some versions/devices
- Focus visible as a border around items but color varies depending on version/device
- Unique gestures for common tasks
- Reads both screen items and text content

[Use the TalkBack tutorial](#) (may not be available on all devices)



TalkBack Gestures

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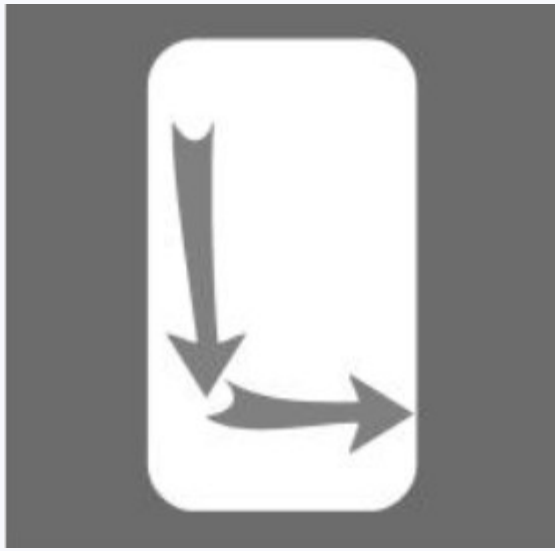
- Single finger swipe - move between items
- Two-finger swipe up – read screen from the top
- Two-finger tap – pause reading
- Double-tap – activate selected item
- Single finger swipe down then right - Open TalkBack menu



[Use TalkBack gestures]

Comparing Apples to Non-Apples

Functional Differences Between iOS & Android

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iOS

- Closed Architecture = Predictability
- Stability
- Hardware/Software Integration
- OS updates pushed out simultaneously

Android

- Fragmentation of software and hardware
- Many more devices on market
- Commitment to accessibility not comparable

Mobile Accessibility Resources

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BBC Mobile Accessibility Guidelines

http://www.bbc.co.uk/guidelines/futuremedia/accessibility/mobile/about

Mobile Accessibility at W3C

https://www.w3.org/WAI/standards-guidelines/mobile/

Android – Make Apps More Accessible

https://developer.android.com/guide/topics/ui/accessibility/apps

Apple – Accessibility on iOS

https://developer.apple.com/accessibility/ios/

Consumer-driven Site on Accessibility of Apple Products

http://applevis.com/

Repository of Android Apps for People who are Blind/Visually Impaired

http://androidaccess.net/

Questions???