

Welcome to the Section 508 Best Practices Webinar Series

A collaborative program between the
*Accessibility Committee of the CIO Council, The U.S. Access Board and
eFedLink/ODEP*

**The Session is Scheduled to begin at 1:00pm Eastern Time
We will be testing sound quality periodically**

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3

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4

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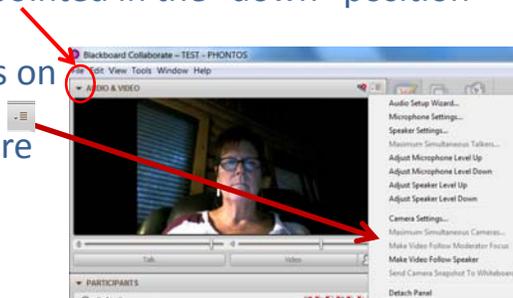


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5

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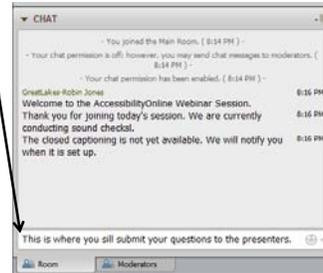


6



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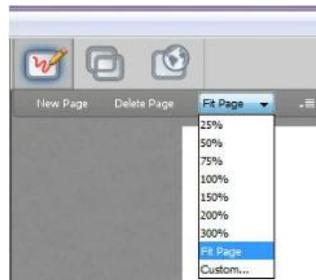
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7



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8

Customize Your View *continued*



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9

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10

Wireless Technology and 508

Moderator: Deborah Kaplan, Section 508 Policy Lead, Office of the CIO, HHS

Presenters:

Timothy Creagan, Senior Accessibility Specialist, U.S. Access Board

Ben Lippincott, Industry Relations Manager, Wireless Rehabilitation Engineering
Research Center, Atlanta, GA

Jamal Mazrui, Manager, Accessibility Clearinghouse, FCC

July 29, 2014

11

Agenda

- ▶ Introduction
- ▶ Wireless Technology and Section 508
- ▶ What does Section 508 require?
- ▶ Background on Wireless Technology
 - What is it?
 - How does it differ from traditional telephones?
- ▶ What resources are available to agencies to research accessibility features of Wireless Technology ?
- ▶ Q& A -

12

This webinar is sponsored by:



A Community of Practice to Advance Federal
Employment for Persons with Disabilities

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13

Welcome

- ▶ Webinar series: “Best Practices in Federal Section 508 Implementation”
 - This webinar is part of a series. Other presentations can be viewed at:
 - <https://efedlink.org/allqual/resource-shared-webinars.cfm> and <http://www.adaconferences.org/CIOC/Archives/>
- ▶ A best practice is a policy, process, procedure or technique proven effective over time and repeatable by multiple agencies.
- ▶ A best practice is generalized so that diverse agencies may use it in their own organizations but specific enough to provide useful guidance and instruction.
- ▶ The CIO Council’s Accessibility Committee has published a library of 508 Best Practices at www.Section508.gov

14

Section 508 Best Practices Webinar upcoming DATES for 2014:

- ▶ Webinars dates will be bi-monthly during 2014.
January, March, May, July, September, December
- ▶ Next Webinar: September 29, 2014 – Topic: TBD
Time: 1:00 to 2:30 p.m. ET
- ▶ Future webinar dates and topics are forthcoming

Past webinars: ARCHIVED:

- <http://www.adaconferences.org/CIOC/Archives>
- <https://efedlink.org/allqual/collaborate-webex-archive.cfm>

15

Section 508 Best Practices Webinar series 2014

- ▶ For more information, contact the Education Subcommittee co-chairs:
 - Tim Creagan – creagan@access-board.gov
 - Deborah Kaplan – deborah.kaplan@hhs.gov

16

Presenters

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- ▶ Timothy Creagan, Senior Accessibility Specialist, U.S. Access Board
- ▶ Ben Lippincott, Industry Relations Manager, Wireless Rehabilitation Engineering Research Center, Atlanta, GA
- ▶ Jamal Mazrui, Manager, Accessibility Clearinghouse, FCC

Moderator:

- ▶ Deborah Kaplan, Section 508 Policy Lead, Office of the CIO, HHS

17

Communications Technology and Section 508

Wireless Technology and Section 508 – What are we talking about?

- ▶ “Wireless technology” – best known example is the mobile phone, also known as a cellular phone.
- ▶ During today’s webinar, we will see examples of several different types of Wireless Technology with different accessibility features.
- ▶ These features help to overcome barriers experienced by individuals with disabilities.

19

Section 508 Standards focus on product categories of ICT:

- ▶ “Software applications and operating systems” §1194.21
- ▶ “Web-based internet and intranet information and applications” §1194.22
- ▶ **“Telecommunications products” §1194.23**
- ▶ “Video and Multimedia products” §1194.24
- ▶ “Self contained, closed products” §1194.25
- ▶ “Desktop and portable computers” §1194.26

20

What features are included in §1194.23 Telecommunications products ?

- ▶ 2 way voice communication
- ▶ Controls and keys
- ▶ Hardware
- ▶ Minimize Hearing aid interference
- ▶ Text messaging(TTYs)
- ▶ IVR (Interactive Voice Response, menus)

21

Today there are many more communication features available and many more products:

- ▶ Voice communication: “landline” phones, wireless phones, Smart phones
- ▶ Text messaging: TTYs, SMS, Blackberry, iPhone, Sidekick, Twitter
- ▶ Calls/ Video Conferencing: SKYPE
- ▶ Adjust size of text: Zoomtext or other software
- ▶ Web sites with information about product features

22

Section 508 still applies; analyze the features of the technology:

- ▶ **Subpart B Technical Standards** – do any apply?
 - E.g. §§1194.23, 1194.21, 1194.22
- ▶ **Subpart C Functional Performance Criteria** – do any apply?
 - E.g. §1194.31(a) – (f)
- ▶ **§1194.5 Equivalent Facilitation** – the new technology or design [not necessarily in Section 508] results in substantially equivalent or greater access to and use of a product for people with disabilities – DOES THAT APPLY?
 - E.g. voiceover for Apple iOS
- ▶ **§1194.3 General Exceptions:** Do any apply?
 - E.g. §1194.3 (e) Fundamental Alteration

23

Mobile Telephony – characteristics

Rehabilitation Engineering Research Center
for Wireless Technologies –
(Wireless RERC)

Wireless RERC

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.



Shepherd Center



25

Overview of the Wireless RERC

Organized into 3 areas:

- **Research**
 - R1 - User-Centered Research
 - R2 - Policy Approaches to Accelerate Wireless Accessibility
- **Engineering and Development**
 - D1 - App Factory for Assistive and Accessibility Apps
 - D2 - Emergency Lifelines on Wireless Platforms
- **Training and Outreach**
 - T1 - Promoting Awareness of Access and Usability Needs
 - T2 - State of the Technology Conference
 - T3 - Student Capacity Building

26

App Factory

- Development of accessible and/or assistive apps
- Wireless RERC funds app developers through annual RFP
- Ability to fund up to 8 apps per year



BrailleTouch



IDEAL Currency Identifier



Access Note



Georgia ReadMore for ASL Learners

- Alternative text input app based on the Braille alphabet

- Identifies three generations of U.S. currency notes beginning in 1993

- Note taking app designed for people with substantial loss of vision

- Streams video of GPB's Georgia Read More program with ASL overlay

27

Discover Wireless Accessibility!

- ▶ Collaboration between Wireless RERC and AT&T's Corporate Accessibility Technology Office (CATO)
- ▶ 5-city roadshow pilot (Atlanta, Austin, Chicago, Dallas, Washington)
- ▶ # 1 Goal – Increase awareness of built-in accessibility features of smartphones!
- ▶ We want to help consumers:
 1. Understand which popular smartphone platforms and Operating Systems (OS) might best fit their needs
 2. Understand built-in accessibility features in those OS's
 3. Experience the latest accessible wireless technologies
 4. Alleviate issues with their own devices or learn something new

28

General Hardware Overview

- Four device categories:
 1. Smartphone
 2. Phablet
 3. Tablet
 4. Feature Phones *
 5. Quick Messaging Device (QMD) *

29

General OS Overview

Apple's iOS 7

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

30

General OS Overview

Google's Android 4.4 (Kit Kat)

- ▶ 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”

31

Accessibility Features (High-level)

- ▶ Blind/Low-vision
 - Screen readers
 - TalkBack – Android
 - Voice Over – iOS
 - Magnifiers
 - Zoom – iOS
 - Magification –Android
 - Contrast
 - Invert contrast – iOS
- ▶ Deaf/Hard-of-Hearing
 - Text messaging
 - iMessages – iOS
 - Hangouts – Android
 - Video calling
 - FaceTime – iOS
 - Hangouts – Android
 - HAC
 - “M” or “T” rating depends on phone model
 - Captioning
 - Available on iOS and Android

32

Accessibility Features (High-level)

- ▶ **Mobility/Dexterity**
 - Virtual Intelligent Assistants
 - Siri - iOS
 - Google Now/OK Google - Android
 - Alternative Interface
 - Assistive Touch - iOS
 - Assistant Menu - Android (Samsung)
- ▶ **Cognitive**
 - Guided Access - iOS
 - Widgets - Android
 - Keep - Android

33

What's the Future Look Like?

Potential Fall Releases:

- ▶ iOS 8
- ▶ Android "L"

Wearables!

- ▶ FitBit
- ▶ Google Glass
- ▶ Pebble Watch
- ▶ Android Wear

34

Wireless Telephony Resources

Accessibility Clearinghouse
Federal Communications Commission

Accessibility Clearinghouse FCC

- ▶ The FCC's Accessibility Clearinghouse is a web-based repository of information about accessible communications, products, and services. It is available via a friendly URL at <http://ach.fcc.gov/>
 - It is mandated as an FCC responsibility by the 21st Century Communications and Video Accessibility Act of 2010 (CVAA).
 - It went online in October 2011, a year after passage of the CVAA.

Accessibility Clearinghouse FCC

- ▶ The Accessibility Clearinghouse contains data about accessibility features of mobile phones, as gathered and syndicated by the Mobile Manufacturer's Forum (MMF).
- ▶ Currently, about 100 accessibility features are addressed in 400 phones and tablets.
- ▶ These accessibility features are subdivided into disability categories, including visual, hearing, dexterity, and cognitive.

37

Accessibility Clearinghouse FCC

- ▶ The Clearinghouse also contains data about 500 free, assistive apps for mobile devices, which are tagged by disability type and mobile platform.
- ▶ The Clearinghouse additionally contains accessibility staff contacts for wireless communications service providers and equipment manufacturers.
- ▶ The Accessibility Clearinghouse implements responsive design so that the user interface adjusts automatically for optimal viewing on mobile devices.

38

Additional Resource Links on Mobile Accessibility 1 / 2

- ▶ The FCC offers a consumer guide on telecommunications access, including wireless handsets. <http://www.fcc.gov/guides/telecommunications-access-people-disabilities>
- ▶ The FCC issued a report and order on accessible internet browsers on mobile phones. <http://www.fcc.gov/document/section-718-accessibility-requirements-internet-browsers-mobile>
- ▶ The federal government offers a gallery of free mobile apps produced by various agencies. <http://apps.usa.gov/>
- ▶ Federal agencies also contribute to a catalog of mobile code snippets and developer tools so that useful apps may be produced more easily. <http://www.digitalgov.gov/2013/05/13/federal-mobile-code-sharing-catalog-is-here/>

39

Additional Resource Links on Mobile Accessibility 2 / 2

- ▶ The World Wide Web Consortium has published best practices for the design of websites intended to be browsed on mobile devices. <http://www.w3.org/TR/mobile-bp/>
- ▶ CTIA, The Wireless Association, collected links to accessibility guidelines for app developers targeting various mobile platforms. <http://www.accesswireless.org/Industry-Resources.aspx>
- ▶ The BBC has published mobile accessibility guidelines. http://www.bbc.co.uk/guidelines/futuremedia/accessibility/mobile_access.shtml
- ▶ ITU and G3ict published a report called "Making Mobile Phones and Services Accessible for Persons with Disabilities". http://g3ict.org/resource_center/publications_and_reports/p/productCategory_books/subCat_1/id_191

40

RESOURCES

Resources

- ▶ FCC Clearinghouse on Accessible Products:
<http://ach.fcc.gov/>
- ▶ Wireless Rehabilitation Engineering Research Center:
<http://www.wirelessrerc.org/>
- ▶ U.S. Access Board: <http://www.access-board.gov>
- ▶ Access Wireless.org – website designed to help people with disabilities, seniors and their families to find a cell phone and service. <http://accesswireless.org/Home.aspx>
- ▶ Global Accessibility Reporting Initiative (GARI) – helps consumers to find a device with the accessibility features that work best for them
<http://www.mobileaccessibility.info/>



43

For More Information

- ▶ Wireless Technology and Section 508 :
 - FCC: [Jamal Mazrui](#)
 - Wireless RERC: [Ben Lippincott](#)
 - U.S. Access Board: Creagan@access-board.gov

44