

# Welcome to the AccessibilityOnline Webinar Series



A collaborative program between the National Network of ADA Centers and the US Access Board



**The Session is Scheduled to begin at 2:30pm Eastern Time  
We will be testing sound quality periodically**

The content and materials of this training are property of the US Access Board and the DBTAC - Great Lakes ADA Center and cannot be used and/or distributed without permission. This program is funded under award #H133A060097 from the U.S. Department of Education through the auspices of the National Institute on Disability and Rehabilitation Research (NIDRR) and an inter-agency agreement with the U.S. Access Board. For permission to use training content or obtain copies of materials used as part of this program please contact us by email at [adata@adagreatlakes.org](mailto:adata@adagreatlakes.org) or toll free (877)232-1990 (V/TTY)

[www.AccessibilityOnline.org](http://www.AccessibilityOnline.org)

(877) 232-1990(V/TTY)



## Webinar Features



- **Closed captioning** – click **CC** icon (top of screen) or control-F8 and adjust your screen
- **Questions** - type and submit questions in the Chat Area Text box or press control-M and enter text in the Chat Area
- **Emotions/Hand-Raising** - Please do not use these features during this session as they can be distracting to other participants

2



## Polling Features



This session will utilize the Polling Features of the Webinar Platform:

- A – Choose A or Control +1 on your keyboard
- B – Choose B or Control + 2 on your keyboard
- C – Choose C or Control + 3 on your keyboard

3



## Presenter U.S. Access Board



Tim Creagan

4



## Session Agenda

- I. Barriers
- II. Background:
  - §508 of the Rehabilitation Act and
  - §255 of the Telecommunications Act
- III. Why is this important?
- IV. The “Refresh” of Sections 508 & 255

UNITED STATES ACCESS BOARD

5

## E&IT and Telecomm: “computers and phones”



Electronic and Information Technology  
Accessibility Standards  
Telecommunications Act Accessibility Guidelines

6



## I. Barriers to People with Disabilities



7

Have you ever struggled to  
see

the characters on a screen?

8

## Seeing

- Phones
  - Illuminated displays
  - High contrast controls
  - Large buttons
- Computers
  - Zoom display
  - High contrast display
  - Screen reader



UNITED STATES ACCESS BOARD

9

## Hearing

- Phones
  - Hearing aid compatibility
  - Text capability
  - Vibrating alerts
- Computers
  - Video captions
  - Visual alerts

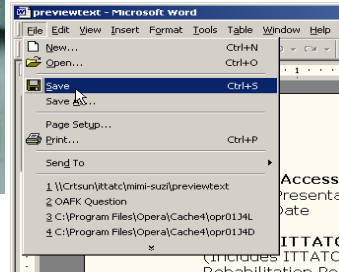


UNITED STATES ACCESS BOARD

10

# Holding and manipulating

- Phones:
  - Large buttons
  - Lightweight
  - Speed dial
- Computers
  - Sticky keys
  - Keyboard commands
  - Voice recognition



# Thinking, remembering

- Phones
  - Automatic redial
  - Voice activated dialing
- Computers
  - Alternate input modes
  - Screen reader





## II. Background

- §508 of the Rehabilitation Act and
- §255 of the Telecommunications Act

## Overview

- Telecommunications Act of 1996  
47 U.S.C. §255
  - “Section 255”
- Section 508 of the Rehabilitation Act of 1973, as amended  
29 U.S.C. § 794 (d)
  - “Section 508”



# Section 255 of the Telecommunications Act

## Overview

## § 255 General Requirements

Manufacturers & service  
providers *must*:

- Provide equipment that is accessible
- Include representation from people with disabilities in the processes of Product Design, Development, and Evaluation





## Section 255 Standards

- Subpart A — General
- Subpart B —General Requirements
- Subpart C —Requirements for Accessibility and Usability
- Subpart D —Requirements for Compatibility With Peripheral Devices and Specialized Customer Premises Equipment
  
- Appendix to Part 1193 — Advisory Guidance

17

## Poll Question:

Which of the telephones in the next picture do you think is more Accessible?

- A. The phone on the left (blue phone)
- B. The phone on the right (red phone)

UNITED STATES ACCESS BOARD

18

## Cell Phone: Which is more Accessible?



19

## Cell Phone: How Accessible ?



20



## Section 508 of the Rehabilitation Act

### Overview

UNITED STATES ACCESS BOARD

21

### **§508 General Requirements:**

Each Federal department and agency when procuring, maintaining, developing or using electronic and information technology, must ensure that:

Federal employees with disabilities, and members of the public with disabilities seeking information or services, have access to and use of information and data that is comparable to the access and use by persons who are not individuals with disabilities, unless...

Standard:

“Undue Burden”

UNITED STATES ACCESS BOARD

22

## Who Benefits from § 508

1. People with disabilities who interact with federal agencies.
2. Federal employees with disabilities.
3. All people with disabilities, because accessible products for the federal market are also sold in the public marketplace.

## Section 508

- Subpart A — General
- Subpart B — Technical Standards
- Subpart C — Functional Performance Criteria
- Subpart D — Information, Documentation, and Support

## Subpart B — Technical Standards

- 1194.21 Software applications and operating systems.
- 1194.22 Web-based intranet and internet information and applications.
- 1194.23 Telecommunications products.
- 1194.24 Video and multimedia products.
- 1194.25 Self contained, closed products.
- 1194.26 Desktop and portable computers.

UNITED STATES ACCESS BOARD

25

## Poll Question: What Technology is covered by §508?

- A. Computers , telephones and kiosks
- B. Cassette tapes, mimeograph machines and manual typewriters
- C. Glass thermometer, doorbell and desk lamp

26

# What Technology is Covered by \$508?

Computers



Telecommunications



Kiosks



27

# More Technology is Covered by \$508...

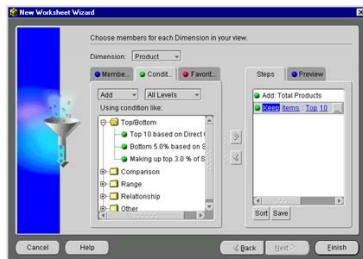
Printers



Web pages



Web based applications



Office Equipment



28

## Subpart C — Functional Performance Criteria

- At least one mode of operation and information retrieval that does **not** require:
  - User vision
  - Visual acuity greater than 20/70
  - Hearing
  - Limited Hearing
  - User speech
  - Fine motor control

29

## II. Accommodation v. Accessibility

- |                           |                        |
|---------------------------|------------------------|
| • Particular              | • Global               |
| • Occurs “after the fact” | • “Built In”           |
| • §504                    | • §508                 |
| • “Person focused”        | • “Technology Focused” |
| • “Civil Rights”          | • “Procurement”        |

UNITED STATES ACCESS BOARD

30



### III. Why is this important?

UNITED STATES ACCESS BOARD

31

### Modern Technology can be used by People with Disabilities

iPods and Podcasting



VoIP (Voice over Internet Protocol) Phones



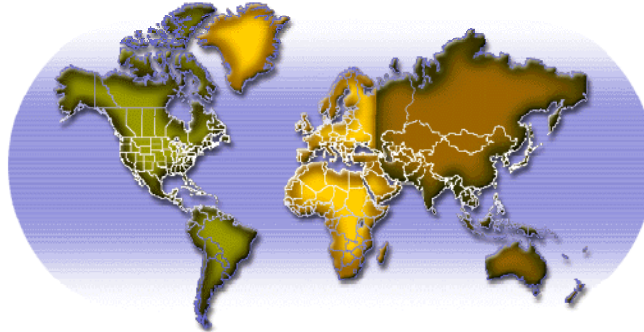
UNITED STATES ACCESS BOARD

32



## This is happening world wide

- Other countries are watching U.S. design



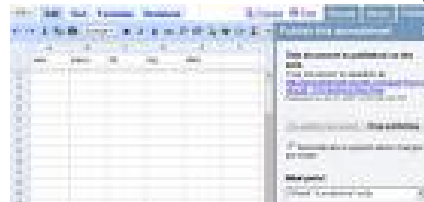
UNITED STATES ACCESS BOARD

33

## Convergence of Technology

- Web applications and web-software  
on the web versus on a desktop

wiki



- Hardware, esp. mobile devices



Cell phone /w text messaging

UNITED STATES ACCESS BOARD

34

## Use of AT in mainstream products

Speech input and output more common

- cell phones
- automobiles

Interactive text – IM – Real time Text –

API (Application Programming Interface) –  
address compatibility responses between AT  
and IT software (make products interoperate)

UNITED STATES ACCESS BOARD

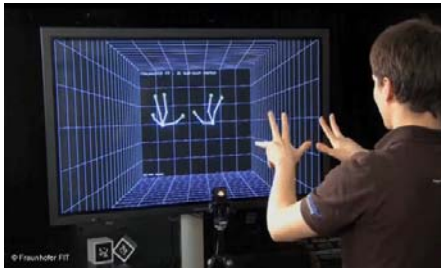
35

## Multi-touch and gesture interfaces

Touch interfaces on mobile devices



Whole gestures: spreading two fingers apart



UNITED STATES ACCESS BOARD

36

## The “Refresh” of Section 508

The “Refresh” is an update of:

- Section 508 standards for electronic and information technology (“E&IT”) (procured by Federal agencies)
- Section 255 guidelines for telecommunications products

UNITED STATES ACCESS BOARD

37

## What has changed?

- Organization – features, not “products”
- Advisory Notes added
- Addresses current technology
- Definition of “content” – what is covered?
- Referenced standards
- Harmonize with WCAG 2.0

38

# Draft text

Chapter 1- 508; Chapter 1 – 255

Chapter 2 Functional Performance Criteria

Chapter 3 Common Functionality

Chapter 4 Platforms, Applications and Interactive Content

Chapter 5 Electronic Documents

Chapter 6 Synchronized Media Content and Players

Chapter 7 Hardware Aspects of ICT

Chapter 8 Audio Output from Hardware

Chapter 9 Conversation Functionality and Controls

Chapter 10 ICT Support Documentation and ICT Support Services

UNITED STATES ACCESS BOARD

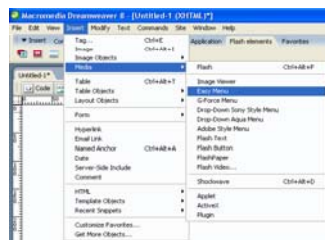
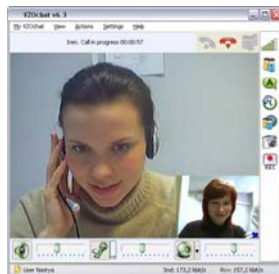
39

## Chapter 1 – Section 508

Definition of:



“Information and Communications Technology” (ICT).



40

# Chapter 1-508

Limited coverage of content:

“official communications by Federal agencies”

Coverage of other types of communications and electronic content such as “official communications” including social media (i.e., YouTube and Twitter)



UNITED STATES ACCESS BOARD

41

## Provisions – Chapter 2: Functional Performance Criteria

201 General

202 Functional Performance Criteria:

202.2 Without Vision;

202.3 With Limited Vision

202.4 Without Perception of Color;

202.5 Without Hearing;

202.6 With Limited Hearing.

202.7 Without Speech;

202.8 With Limited Manipulation;

202.9 With Limited Reach and Strength;

202.10 With Physical Contact;

202.11 Minimize Photosensitive Seizure Triggers.

**“ICT shall  
provide  
access to all  
functionality”**

42

## Chapter 2

With limited hearing (202.6)

Features to address:

clarity,  
reduction of background noise,  
control of background noise



UNITED STATES ACCESS BOARD

43

## Provisions – Chapter 9: Conversation Functionality and Controls 1/2

901 General

902 Real-Time Text Functionality

903 Voice Mail, Messaging,  
Auto-Attendant,  
Conferencing, and Interactive  
Voice Response (IVR)



44

**Provisions –  
Chapter 9: Conversation Functionality and  
Controls 2/2**

904 Information about Call Status and Functions



905 Video Communication Support

906 Audio Clarity for Interconnected VoIP

907 Alternate Alerting for VoIP Telephone Systems

45

**Next Steps in the Refresh process**

- Analyze comments
- **\*Harmonization draft published\***
- Develop proposed rule (NPRM)
- Develop regulatory assessment
- Submit to Office of Management and Budget
- Publish NPRM in the Federal Register
  - Public comment period
- Final rule

46

## Where to find:

- **Current 508 Standards:**  
<http://www.access-board.gov/sec508/standards.htm>
- **Draft Text from the Refresh:**  
<http://www.access-board.gov/sec508/refresh/draft-rule.htm>
- **Public Comments on the draft text:**  
<http://www.regulations.gov/#!docketDetail;D=ATBCB-2010-0001>

47

## Questions? Comments? More information?

(800) 872-2253/TTY

[www.access-board.gov](http://www.access-board.gov)

[508@access-board.gov](mailto:508@access-board.gov)

48



## Resources on §508 and §255

### Government:

- US Access Board: [www.access-board.gov](http://www.access-board.gov)
- FCC: [www.FCC.gov](http://www.FCC.gov)

### Federally Funded:

- ITTATC (Information Technology Technical Assistance and Training Center)  
[www.ittatc.org](http://www.ittatc.org)

49

## Questions?

- You may type and submit questions in the Chat Area Text Box or press Control-M and enter text in the Chat Area

50

**Thank you for participating  
in today's webinar**



**Next scheduled session:  
*Accessible Retail Stores and Spaces*  
(October 6, 2011)**

**[www.accessibilityonline.org](http://www.accessibilityonline.org)  
(877) 232-1990 (v/TTY)**

51