

# Rethinking Section 508 Compliance: Improving Web Accessibility in the Public Sector through Best Practices

## Case Study – Social Security Administration



# Overview

- Why accessibility matters
- How best practices can be used to deliver an accessible and usable online user experience
- Accessibility in a new era of transparency, participation and collaboration





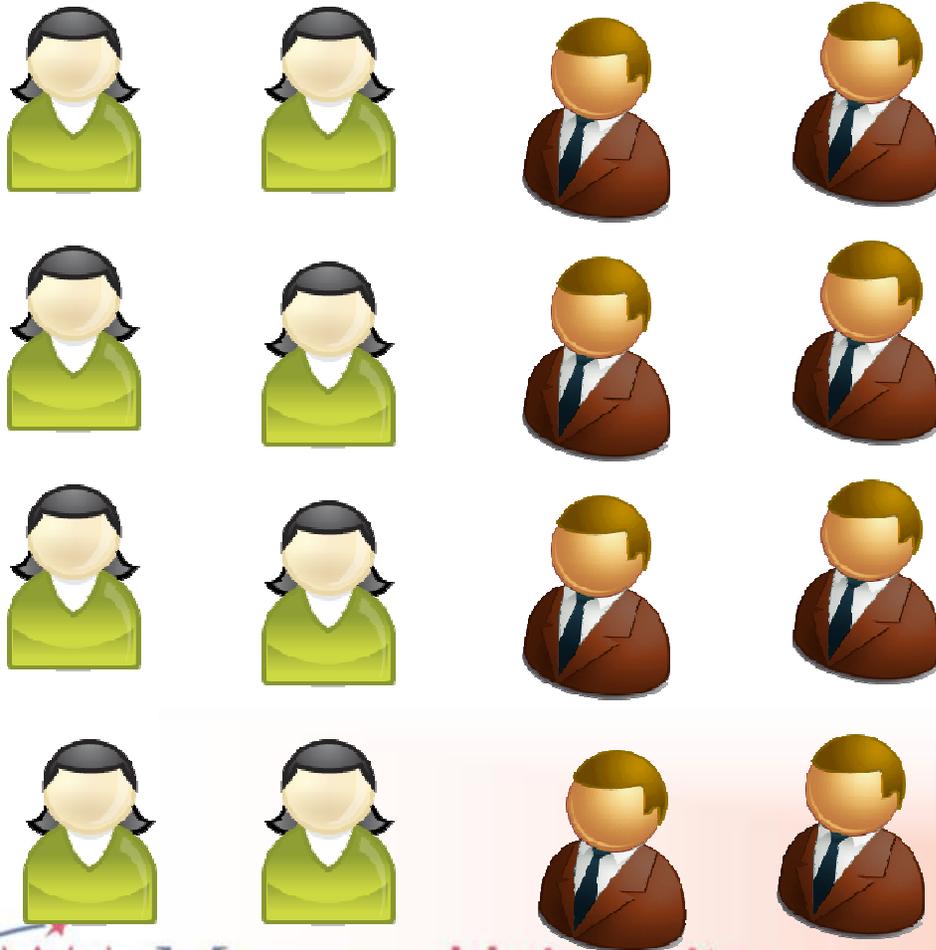
**Mild to severe  
disabilities  
between ages 25-  
44 (11%)**



Source – 2002 US Census

Government Web Managers Conference  
April 28-29, 2009

**Mild to severe  
disabilities between  
ages 45-54 (19%)**



Source – 2002 US Census

Government Web Managers Conference  
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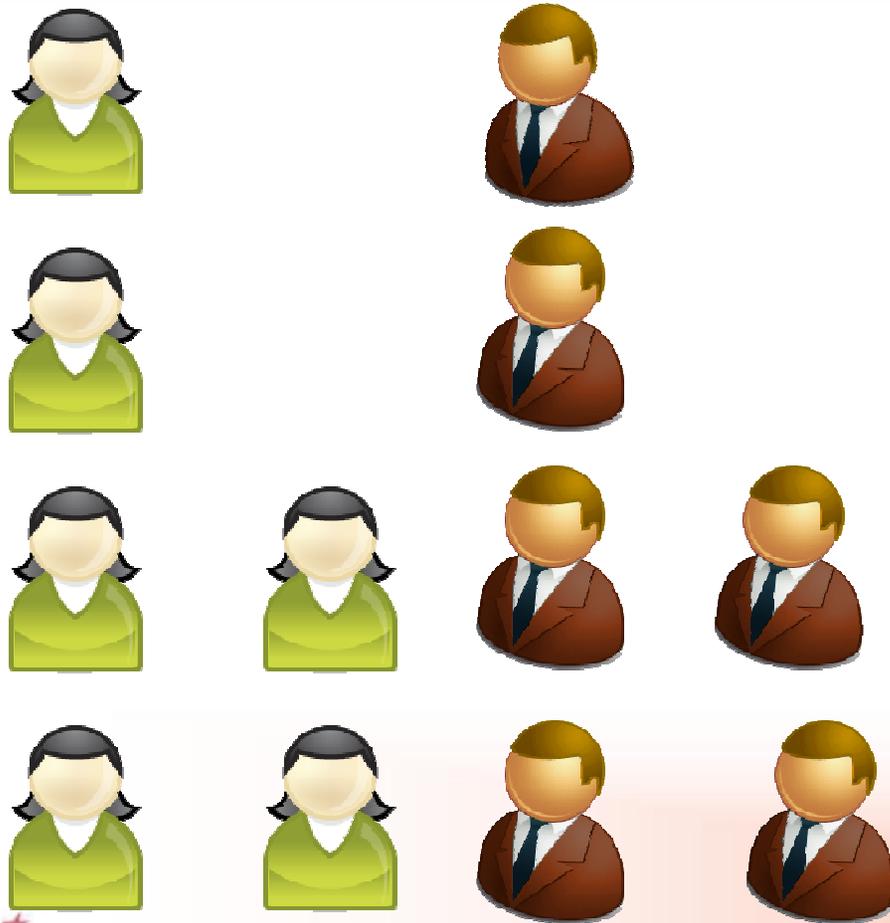
**Mild to severe  
disabilities between  
ages 55-64 (28%)**



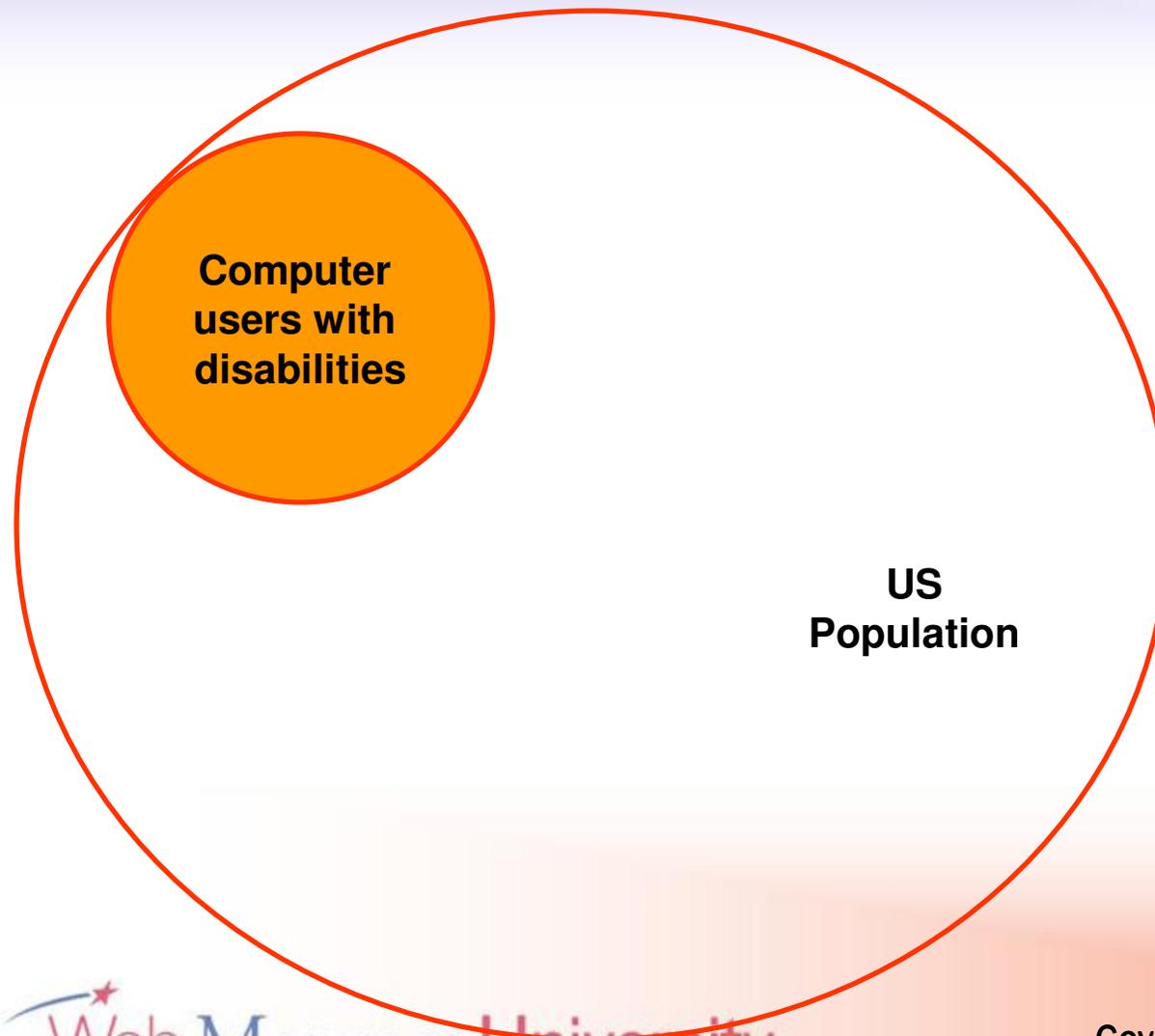
Source – 2002 US Census

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# Mild to severe disabilities between ages 65 – 69 (38%)



# Computer Users with Disabilities



## **Computer Users W/ Disabilities ages 18-64**

**27% have a visual impairment – of which 11% are severely impaired**

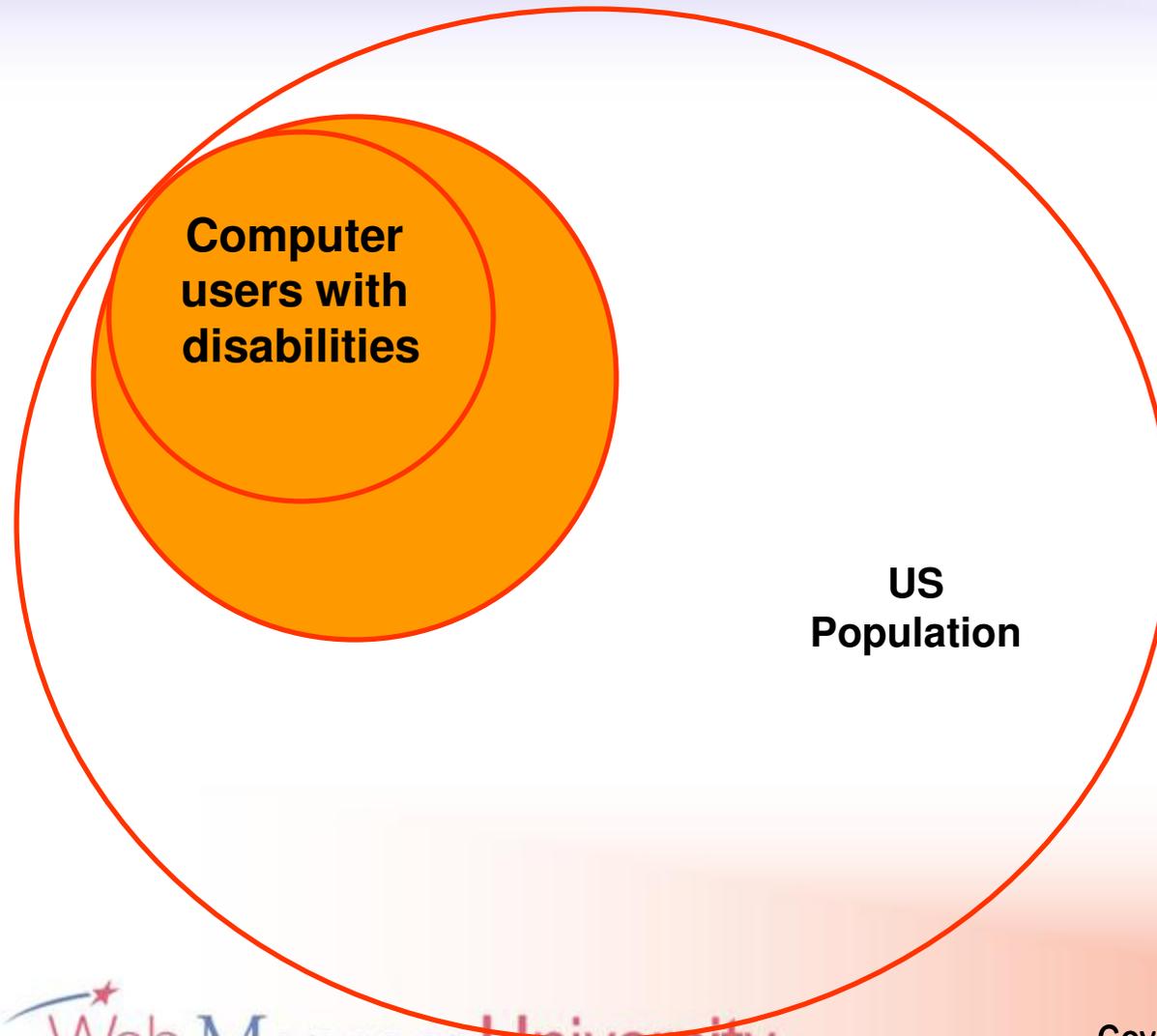
### **Screening criteria:**

**Individuals who considered themselves to have an impairment as well as those who did not but did report having difficulty performing daily tasks.**

Source – 2003 Forrester

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# Computer Users with Disabilities

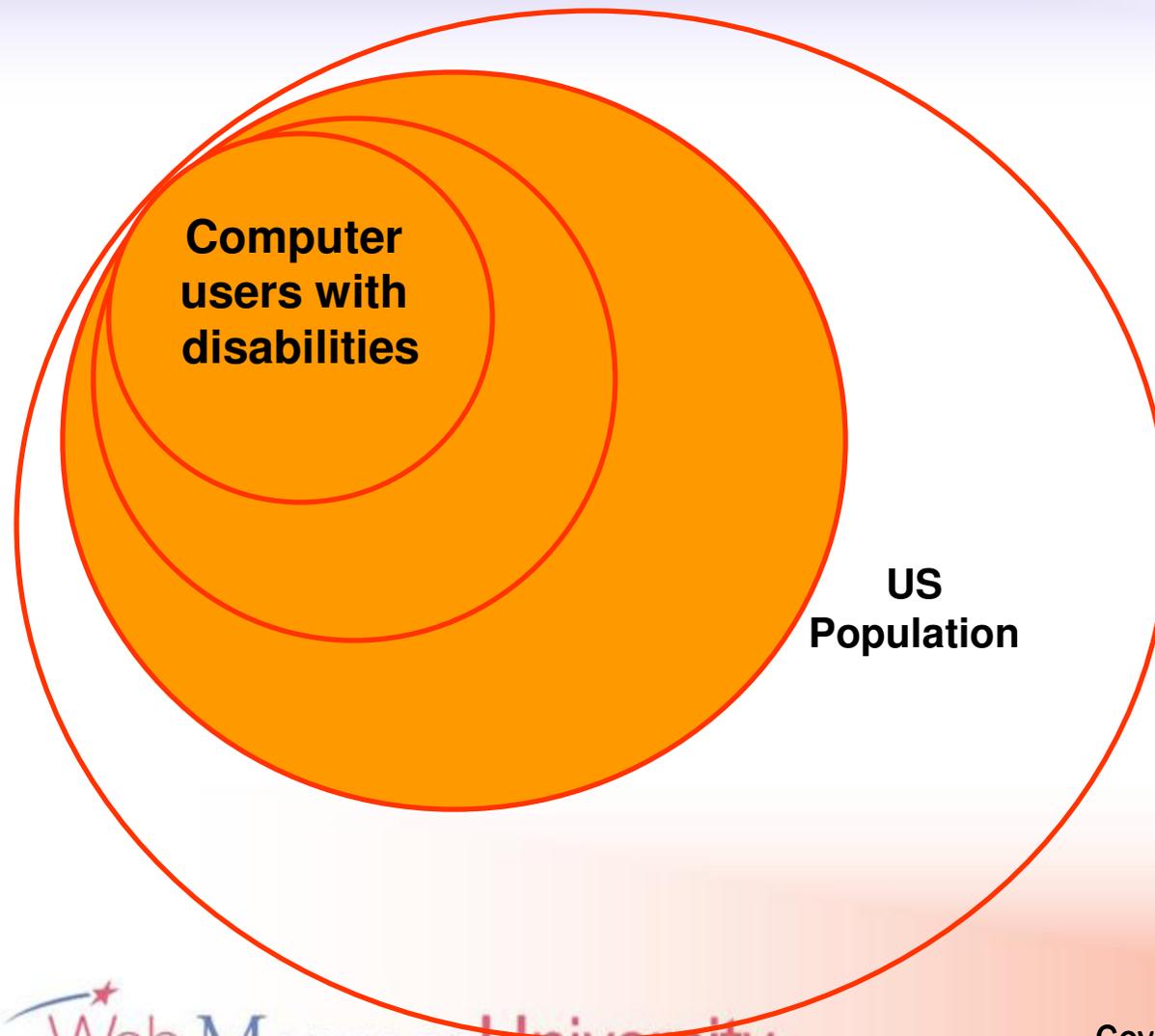


## Computer Users W/ Disabilities ages 18-64

**27% have a visual impairment – of which 11% are severely impaired**

**26% have a dexterity impairment, of which 7% are severely impaired**

# Computer Users with Disabilities



## **Computer Users W/ Disabilities ages 18-64**

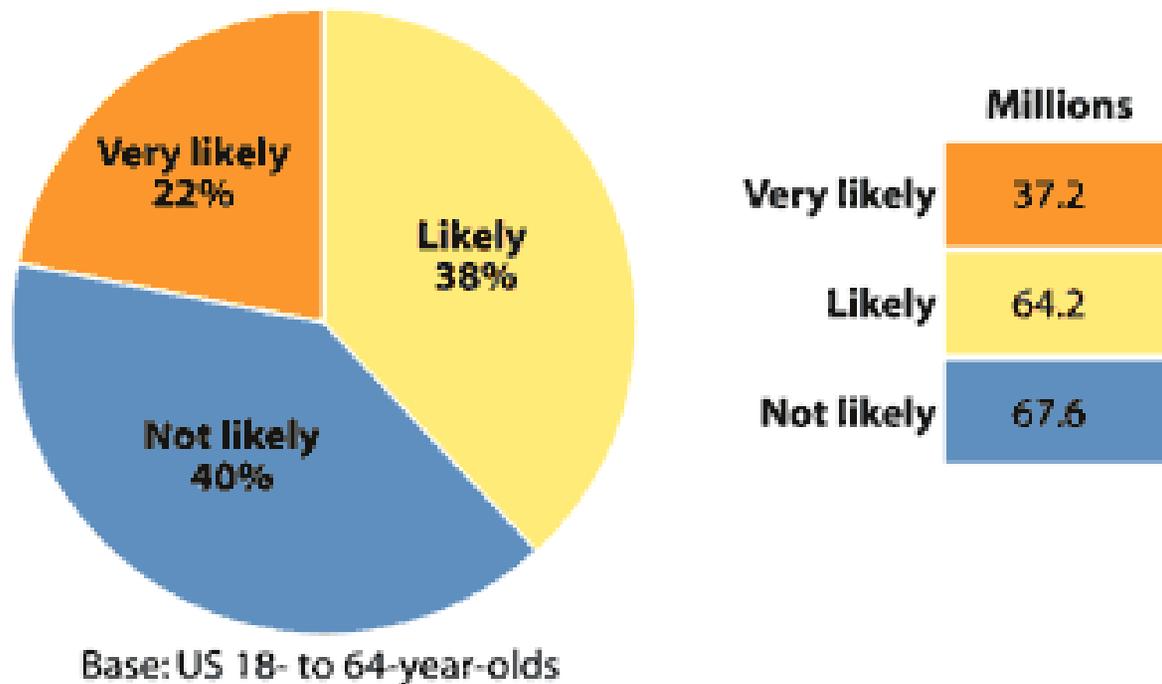
**27% have a visual impairment – of which 11% are severely impaired**

**26% have a dexterity impairment, of which 7% are severely impaired**

**21% have a hearing impairment, of which 3% are severely impaired**

Source – 2003 Forrester  
Government Web Managers Conference  
April 28-29, 2009

# Majority of working-age adults likely to benefit from the use of accessible technology



Source: Study commissioned by Microsoft, conducted by Forrester Research, Inc., 2003



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# SSA's focus on accessibility



# VIDEO PRESENTATION

Where we started

# Can we provide easy to understand accessibility guidance?



to...

designers

developers

testers

compliance officials

# Can we deliver consistent, repeatable accessibility outcomes?



# Can we

easily “bake in” usability  
with Section 508  
compliance approaches



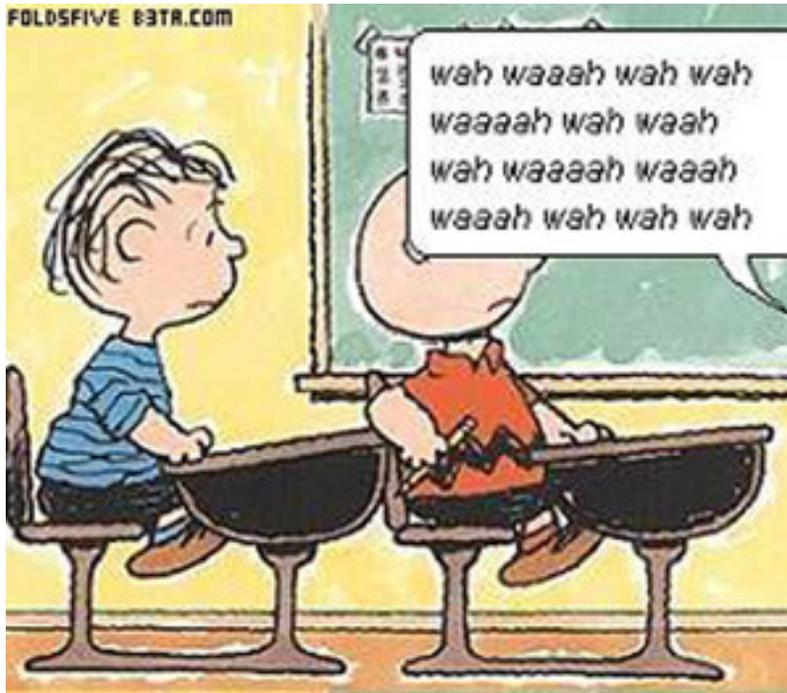
Yes we can!

through accessibility best  
practices

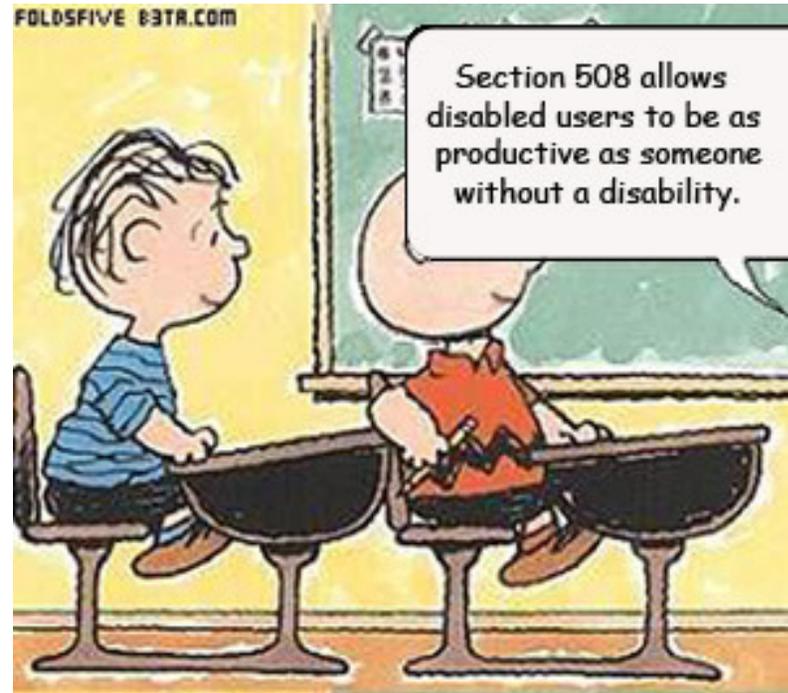
# What are Best Practices?

- A Best Practice is a clear and consistent approach that leads to a desired result.
- At SSA, an Accessibility Best Practice contains:
  - Section 508 legal requirements
  - concise explanation of the problem at hand
  - interactive example of the solution
  - method for testing for the desired results

The better you "translate" legal requirements into plain English, the greater the likelihood you'll create accessible outcomes.



Before Best Practices



After Best Practices

# Where did we start?

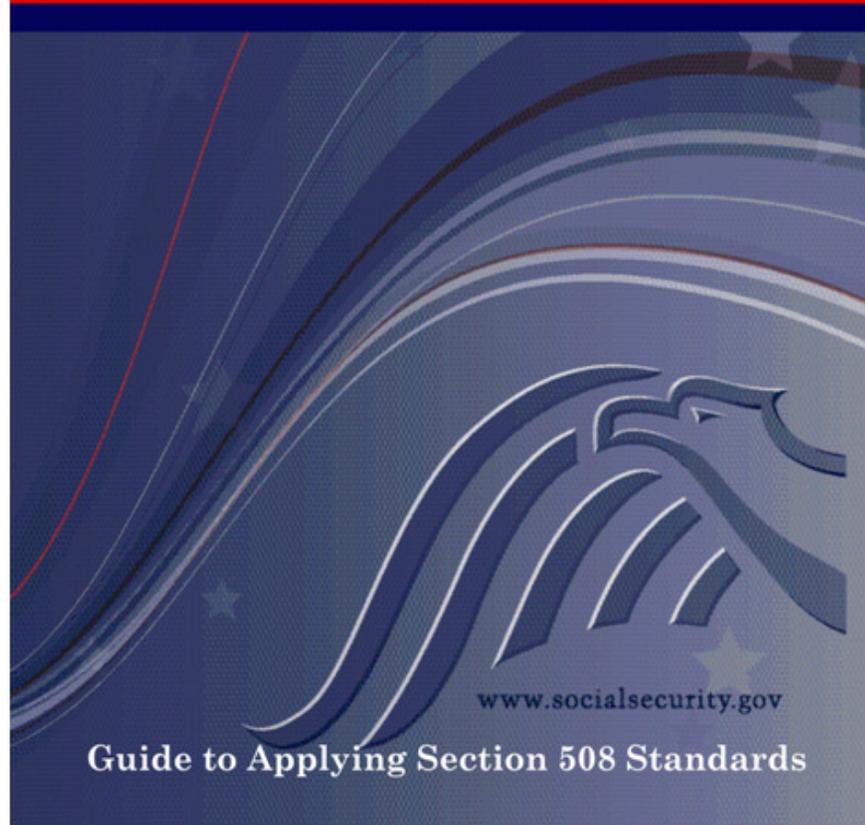
- Our Best Practices arose from the needs of
  - developers
  - testers
  - users

# Step 1

Provide a comprehensive interpretation of the Section 508 Standards to be applied consistently across the organization



# Section 508 Accessibility of Electronic and Information Technology for People with Disabilities



www.socialsecurity.gov

Guide to Applying Section 508 Standards

## Web Information and Applications

### Section 1194.22.a

Standard 1194.22.a A text equivalent for every non-text element shall be provided (e.g. via "alt", "longdesc", or in element content).

SSA Interpretation AT users shall be able to access all meaningful non-text elements.

Requirement (a.1) Screen readers shall be able to speak all alt text or equivalent elements.

<i>Supported By</i>	JAWS
<i>Recommended Evaluation Criteria</i>	All alt text must be meaningful and speak when accessed.
<i>Testing Method</i>	Tab through controls to ensure that they speak and are meaningful. Arrow through images to see that they speak and are meaningful.

Requirement (a.2) Keyboard and voice input users must be able to access all text equivalent alternatives for non-text elements.

<i>Supported By</i>	JAWS
	MAGic
	Dragon
<i>Recommended Evaluation Criteria</i>	All alt text or any equivalent must be exposed by the keyboard or voice input.
<i>Testing Method</i>	Navigate by keyboard to see whether alt text or tool tips are exposed by using the keyboard or voice. ASB has developed a JavaScript capability to accomplish this.

# Step 2

Apply guidance to design efforts

## Accessibility Checklist for User Interface (UI) Specification

This checklist would be used when conducting a walkthrough of a UI design and writing the UI specification document and/or screen requirements, which describe in detail the desired UI behavior.

### Input Controls

#### 1. Are there any data entry fields or input controls that do not have visible labels, or that share a label?

- Yes                      If yes, specify the title attributes for each field.  
 No

#### 2. Could any of the field labels seem unclear to users without the surrounding context (the layout of the page)?

- Yes                      If yes, specify appropriate title attributes for those fields.  
 No

#### 3. Are there text areas (input controls where users enter freeform text)?

- Yes                      If yes, document the requirements for informing users when they reach the character limit (see [Text Area](#) in the Internet standards).  
 No

#### 4. Are there calendar controls?

- Yes                      If yes, ask an accessibility specialist for example(s) of calendar controls that have worked well for accessibility, and document the accessibility requirements for the calendar control.  
 No

### Navigation and Links

#### 5. Are there links?

- Yes                      If yes,  
 No                      -Specify the appropriate target location for the focus when specifying the behavior of the link.  
                               - Ensure that the name of the link will not conflict with the name of a browser command  
                               -Specify the visual appearance of links to make sure they are recognized

# Accessibility Checklist for User Interface (UI) Specification

- What is it?
  - A checklist to be used by development teams when conducting a walkthrough of UI design
- Who should use it, and when?
  - Developers, designers, requirement specialists
  - Best used when a proposed UI is in the planning stage, as well as throughout development.

# Step 3

Provide clear, concise  
implementation guidance for web  
developers and testers

# SSA Best Practices for Developers & Testers

- Easy to access - easy to understand
- Simple!
- Practical guidance on usability concepts “baked in”
- Designed to inform development of site templates and interactive web functionality

# DEMONSTRATION

## SSA Best Practices Library Tutorial

# Testing to Best Practices

- Platform specific test scripts
- Guidelines for evaluation criteria and criticality
- Utilize automated AND manual test methods
- Test with and without AT

# Training to Best Practices

- Provide a consistent message
- Help create repeatable successes
- Emphasize good coding techniques to develop re-usable templates

# Benefits for Users

- Web content becomes accessible to assistive technology
- Web content becomes usable regardless of disability

# VIDEO PRESENTATION

## Accessibility Best Practices – a Recipe for Success

# Results

- Before Best Practices
  - 70% of web applications were considered “508 compliant”.
- After Best Practices
  - 93% of web applications fully conform with all applicable 508 standards.
  - 90% of web applications fully conform to applicable 508 standards in the first release – 100% maintain full conformance in future releases.

# Transparency, Citizen Participation & Engagement



Be careful not  
to lock-out  
people with  
disabilities.

# Summary

- Accessibility Best Practices go beyond standards to provide practical usable solutions that are accessible to everyone.
- Best Practices should be factored into all stages of the life cycle – from design to development to testing.
- Accessible Best Practices should be applied to social media strategies to avoid “selective inclusion”.

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