Challenges in Making Web Surveys 508 Compliant

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Today’s Presentation

- Overview
- Section 508 requirements
- Examples of challenging requirements
- Impact on budget
- Takeaways
Section 508 - Overview

- It is the law
  - Federal employees or members of public seeking information or services from a Federal Department or agency - have access to and use of information and data that is comparable to the access to and use of the information and data by such members of the public who are not individuals with disabilities.

- Categorized broadly into –
  - General (Subpart A)
  - Technical Standards (Subpart B)
  - Functional Performance Criteria (Subpart C)
  - Information, Documentation, and Support (Subpart D)
Focus Groups

- People with Visual Disabilities
  - blind, low vision

- People with Hearing Disabilities
  - deaf, hard-of-hearing

- People with Mobility & Dexterity Impairments

- Other
  - color blindness, cognitive and seizure related disabilities
Technical Standards

- Software applications and operating systems (1194.21)
- Web-based intranet and internet information and applications (1194.22)
- Telecommunication products (1194.23)
- Video and multimedia products (1194.24)
- Self contained, closed products (1194.25)
- Desktop and portable computers (1194.26)
Website/Web Survey Requirements

- **1194.21**
  - Keyboard Accessibility (a)
  - On Screen indication of current focus (c)

- **1194.22**
  - All 16 possible provisions apply
  - Frequently encountered ones
    - Alternate text to images/non-text elements (a)
    - Color (c)
    - Style Sheet (d)
    - Simple data tables (g)
    - Electronic forms (n)
    - Skip repetitive navigation links (o)
Challenging Requirements

- Images like graphs, screenshots (1194.22 a)
- Multimedia (Audio or video or both) (1194.22 b)
- Client-Side image maps (1194.22 f)
- Complex data tables (1194.22 h)
### Mapping of standards to Focus Groups

<table>
<thead>
<tr>
<th>1194.22 Web Standards</th>
<th>Test Results</th>
<th>Blind</th>
<th>Low Vision</th>
<th>Deaf/ Hard of Hearing</th>
<th>Mobility</th>
<th>*Other</th>
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</thead>
<tbody>
<tr>
<td>a. Text equivalents</td>
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<td>b1. Synchronized captions</td>
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<td>b2. Audio description</td>
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<td>c. Color dependence</td>
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<td>d. Style sheet dependence</td>
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<td>e. Text links for server side image maps</td>
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<td>f. Client side image maps instead of server side</td>
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<td>g. Simple data tables: Identify row and column headers with <code>&lt;scope&gt;</code></td>
<td>x</td>
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<tr>
<td>h. Complex data tables: Associate data cells to row and column headers</td>
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<tr>
<td>i. Descriptive titles for frames</td>
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<td>j. Flickering elements</td>
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<tr>
<td>k. Equivalent text only page, only when necessary.</td>
<td>x</td>
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<td>l. Functional text for scripts</td>
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<td>m. Provide plugin links when required</td>
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<td>n. Label form fields</td>
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<td>o. Skip repetitive navigation links</td>
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<td>p. Timed response</td>
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<td>x</td>
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</tr>
</tbody>
</table>

Source: Office of Accessible Systems & Technology (OAST)
Participating sites of INOVA Hospitals in a Google Map
Participating sites of INOVA Hospitals in a Google Map

A - INOVA Fairfax Hospital
B - INOVA Mount Vernon
D - INOVA Alexandria
E - INOVA Loudoun
J - INOVA Emergency Care
H - INOVA Urgent Care Center
We need to characterize accents by the language in use when people learned to speak. For example, the language I usually spoke while growing up was

(INTEVIEWER: SELECT THE APPROPRIATE CATEGORY FOR BIRTH TO 14 YEARS OLD)

1. English
2. Not English
Question – We need to characterize accents by the language in use when people learned to speak. For example, the language I usually spoke while growing up was ______. (INTERVIEWER SELECT THE APPROPRIATE CATEGORY FOR BIRTH TO 14 YEARS OLD)

Two options are provided to the respondent. Please select one of the two:

- English
- Not English
Audio
Audio - Compliant

- Transcript for the audio

- Interviewer - How would you categorize the speed of your speaking in this interview?
  - Rapid
  - Medium
  - Slow

- Respondent - Medium

- There is some background noise in the recording.
8. For what purpose do you generally use visual materials?

Please identify how important for your academic and research work are each of the following tasks.

<table>
<thead>
<tr>
<th></th>
<th>Not Important</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>Very Important</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Analysis</strong></td>
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<td>To study an artists technique</td>
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<td>○</td>
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<tr>
<td>To compare several images</td>
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<td>○</td>
</tr>
<tr>
<td>To document the contents of an image</td>
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<td>○</td>
</tr>
<tr>
<td>To interpret images in a historical context</td>
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<td><strong>Expression</strong></td>
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<tr>
<td>To gain ideas and inspiration</td>
<td>○</td>
<td></td>
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<td>○</td>
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<tr>
<td>To communicate and express ideas</td>
<td>○</td>
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<tr>
<td><strong>Manipulation</strong></td>
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<td>To obtain a copy of the image</td>
<td>○</td>
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<td>○</td>
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<tr>
<td>To edit and reuse the image</td>
<td>○</td>
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8. For what purpose do you generally use visual materials? Please identify how important for your academic and research work are each of the following tasks.

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<thead>
<tr>
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<th>Not Important</th>
<th>Very Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>To study an artist's technique</td>
<td>1  2  3  4  5  6  7</td>
<td></td>
</tr>
<tr>
<td>To compare several images</td>
<td>1  2  3  4  5  6  7</td>
<td></td>
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<tr>
<td>To document the contents of an image</td>
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<td>1  2  3  4  5  6  7</td>
<td></td>
</tr>
</tbody>
</table>

Expression
To gain ideas and inspiration | 1  2  3  4  5  6  7 |
To communicate and express ideas | 1  2  3  4  5  6  7 |

Manipulation
To obtain a copy of the image | 1  2  3  4  5  6  7 |
To edit and reuse the image | 1  2  3  4  5  6  7 |

1. Analysis
   a. To study an artist's technique
      i. 1 = Not important
      ii. 2 = Somewhat important
      iii. 3 = Maybe important
      iv. 4 = Neutral
      v. 5 = Sort of important
      vi. 6 = Important
      vii. 7 = Very important
   b. To compare several images
      i. 1 = Not important
      ii. 2 = Somewhat important
      iii. 3 = Maybe important
      iv. 4 = Neutral
      v. 5 = Sort of important
      vi. 6 = Important
      vii. 7 = Very important
Client-Side Image Maps

Click on the state where you received services

http://acm.csusb.edu/services/webaccessibility/clientSideImageMaps.html
Click on the state where you received services

Alabama       Georgia
Arkansas      Hawaii
Arizona       Illinois
Colorado     Kansas
Delaware     Kentucky
Florida        Louisiana
Maryland     Massachusetts
Minnesota   Missouri
Mississippi Montana
Multimedia (*video may not display on all computers*)

Multimedia Source: DHS Office of Accessible Systems and Technology
Transcript:
This is a conversation that takes place at the Restaurant
Audio description: – In a bustling café a couple sits at the table
Man – Yeah, Yeah – I wonder where our food is?
Audio description: – In the kitchen
Server – Give me the shrimp now!
Chef – Ok, here it comes
Audio description: – Back at the table
Woman – You know, Eva tells me that the food is absolutely amazing here
Audio description: – A server brings wine glasses
Server – Your Wine
Audio description: – The diners linger over a salad course. In the kitchen flames rise from a pan
Head Chef – Chef David you poured too much oil on that!
Audio description: – The chef tosses pasta, and then adds it to the pan. Back at the table, the man sips wine. Now the man in the kitchen sets plates on the counter.
Server – Thank You!
Audio description: – A server in white apron grabs the plates. At the table
Man – Wow! Looks great!
Server – Ok here is fettuccini medley for you and the seafood surprise for you!
Man – Thank you very much!
Server – You are welcome!
Man – Well let’s eat
DO’s and DON’Ts

- **DO’s**
  - identify Section 508 clauses and requirements in contracts
  - budget for 508 testing
  - look for alternative ways to make the information communicated compliant
DO’s and DON’Ts

- DON’Ts
  - wait till after the development is done to make the website 508 compliant
  - submit reports without first testing for compliance
  - assume third party controls stating 508 compliant can be taken as is
  - assume Automated tools test 508 compliance completely
  - assume JAWS*(screen reader) compliant = Section 508 compliant

* Job Access With Speech
Web Survey Application development

Section 508 Considered?

Verify for Compliance

Web Survey Application not compliant

Rework code for 508

Additional project cost

Yes

No

Yes

Issues?

Fix Issues

Website 508 Compliant
Budget Considerations

- The key elements that significantly increase time and budgets
  - Graphs
  - Maps
  - Videos
  - Multimedia
  - Usage of scripting languages
  - Complex data tables
  - Several interactive elements like in a web survey
  - Third party plug-ins
Takeaways

- Consider Section 508 compliance at the earliest – preferably during requirements phase

- Consider alternatives to minimize effort

- Achieve balance between User Interface (UI)/usability and accessibility if required

- Budget for Section 508 compliance in projects
More Information

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