ONE DESIGN FOR ALL
AN INTRODUCTION TO UNIVERSALLY-DESIGNED DIGITAL DOCUMENTS
DISABILITY DEFINED

- A physical or mental impairment that substantially limits one or more of a person’s major life activities
- Around 15% of the world’s population (1 billion people) live with disabilities.
- In the United States, 1 in 5 people have a disability.
THE “D” WORD

“I have a disability and I didn’t even know.”
CONTENT THAT DOESN’T WORK

WHAT DOES INACCESSIBILITY LOOK LIKE?
Macular Degeneration

Diabetic Retinopathy

Retinitis Pigmentosa (RP)
"Moud a text-only sight bee ideale bisorber? Harblee. Iwages are uot actually iucreese cowqreheusio a
Hardly. Images are not bad for acces comprehension and usability for mos

Mhat wauy peoqe bo uot kuom, th accessability for au iwage theu jns
morugly assnwe that iwages are d. esseutialy replces the iwage mit
What many people do not know, thou replaces the image with a text-only vi

by Paul Bohman

bye Paul Bohwau
COLORBLINDNESS

Protanopia or Deuteranopia (“red-green”)

Tritanopia (“blue-yellow”)

WHAT IS ACCESSIBILITY?

- The degree to which information and experiences are available to as many people as possible
- Ensuring that people with disabilities can function as easily as people without disabilities
- It’s good business for users, content authors, developers, financial professionals and executive managers
- A concept that is directly tied to usability
WHY SHOULD YOU MAKE YOUR CONTENT ACCESSIBLE?

- It doesn’t change the visual experience for anyone else.
- It improves how non-disabled users interact with your applications.
- It’s easy.
- It increases your client base.
- It’s the most cost-effective way.
- The law requires it.
- It’s the right thing to do.
WHAT HAPPENS IF WE DON’T?

- We break the law.
- We might get sued. (The lawsuit will be expensive.)
- We frustrate and discriminate against our employees, constituents, consumers and colleagues.
- We deny people of their civil rights.
- Our content will probably look like a mess and no one will be happy with it.
ACCESSIBLE WORD DOCUMENTS

HOW DO WE FORMAT MICROSOFT WORD DOCS TO WORK FOR ALL USERS?
AUTHORS OF ACCESSIBLE WORD DOCUMENTS ALWAYS...

- Use styles to format and organize content
USE STYLES FOR FORMATTING

Do this…
- Use heading styles to organize content
- Use headings in a nested hierarchy
- Create white space with padding
- Create a table of contents from the heading structure of the document

Don’t do that…
- Use the Home ribbon for…anything!
- Use the hard return to create space
- Create a separate document for each chapter and manually compile the chapters into one document
- Use Word to create fillable forms
THE STYLES PANE
WORD STYLES ➔ PDF TAGS
AUTHORS OF ACCESSIBLE WORD DOCUMENTS ALWAYS...

- Use styles to format and organize content
- Include text alternatives for images
Do this…

- Use alt text descriptions for images that convey information
- Be descriptive, but brief
- Images that are decorative or repeating
  - Mark as decorative; or
  - Place in the header or footer area

Don’t do that…

- Use image captions for alt text
- Repeat alt text descriptions in image captions
- Use the title for alt text
- Include more than 150 characters in each alt text description
Figure 2: Radiation dose rate decreases over time. After approximately 24 hours (and in most cases 12 hours) even the highest early dose rates have diminished to the point where exposures may be incurred without suffering acute radiation effects. Source: Armed Forces Radiobiology Research Institute’s Medical Effects of Ionizing Radiation Course on CD-ROM (1999)
AUTHORS OF ACCESSIBLE WORD DOCUMENTS ALWAYS…

- Use styles to format and organize content
- Include text alternatives for images
- Choose fonts that work for digital content
Do this…

- Choose sans serif ("without serif") typefaces
- Use different fonts for headings than body copy
- Adhere to your organization’s style guide

Don’t do that…

- Include flowery, complicated, or decorate fonts
- Use Google-, web-, or Adobe-specific fonts in Office documents
- Choose one typeface for use across all Office formats
Fonts like this are confusing for many users,

but fonts like this work for all.

Fonts like this are confusing for many users,

but fonts like this work for all.
AUTHORS OF ACCESSIBLE WORD DOCUMENTS ALWAYS...

- Use styles to format and organize content
- Include text alternatives for images
- Choose fonts that work for digital content
- Avoid complex tables with merged cells
CREATING ACCESSIBLE TABLES

Do this…
- Use simple tables
- Repeat the header row at the top of each page
- Keep saturated colors limited to the header row
- Use caption or summary elements

Don’t do that…
- Create complex header rows or combine multiple tables by merging cells
- Use shading in every row
- Use blank columns and rows for formatting
<table>
<thead>
<tr>
<th>Survey Item</th>
<th>AMCG</th>
<th>BARDA</th>
<th>IO/COO</th>
<th>FPA</th>
<th>OEM</th>
<th>OPP</th>
<th>None</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Managers communicate the goals and priorities of the organization.</td>
<td>67.6%</td>
<td>79.4%</td>
<td>70.5%</td>
<td>61.3%</td>
<td>51.5%</td>
<td>59.4%</td>
<td>55.6%</td>
<td>63.4%</td>
</tr>
<tr>
<td>2. Overall, how good a job do you feel is being done by the manager directly above your immediate supervisor/team leader?</td>
<td>62.2%</td>
<td>72.0%</td>
<td>49.4%</td>
<td>45.2%</td>
<td>52.7%</td>
<td>53.6%</td>
<td>34.6%</td>
<td>55.6%</td>
</tr>
<tr>
<td>3. In my organization, leaders generate high levels of motivation and commitment in the workforce.</td>
<td>45.9%</td>
<td>57.0%</td>
<td>42.7%</td>
<td>41.9%</td>
<td>37.0%</td>
<td>50.7%</td>
<td>23.1%</td>
<td>44.1%</td>
</tr>
<tr>
<td>4. My organization’s leaders maintain high standards of honesty and integrity.</td>
<td>59.5%</td>
<td>66.0%</td>
<td>45.6%</td>
<td>38.7%</td>
<td>50.9%</td>
<td>58.0%</td>
<td>23.1%</td>
<td>52.5%</td>
</tr>
<tr>
<td>5. I have a high level of respect for my organization’s senior leaders.</td>
<td>50.0%</td>
<td>68.2%</td>
<td>45.6%</td>
<td>51.6%</td>
<td>49.7%</td>
<td>46.4%</td>
<td>19.2%</td>
<td>51.0%</td>
</tr>
<tr>
<td><strong>Leaders Lead Index Score</strong></td>
<td>57.0%</td>
<td>68.5%</td>
<td>50.8%</td>
<td>47.7%</td>
<td>48.4%</td>
<td>53.6%</td>
<td>31.1%</td>
<td>53.3%</td>
</tr>
<tr>
<td><strong>Employee Engagement Index</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Overall, how good a job do you feel is being done by your immediate supervisor/team leader?</td>
<td>70.3%</td>
<td>75.0%</td>
<td>80.0%</td>
<td>70.0%</td>
<td>64.0%</td>
<td>75.4%</td>
<td>53.8%</td>
<td>70.8%</td>
</tr>
<tr>
<td>7. Supervisors/team leaders in my work unit support employee development.</td>
<td>67.6%</td>
<td>70.8%</td>
<td>74.4%</td>
<td>76.7%</td>
<td>65.5%</td>
<td>81.2%</td>
<td>61.5%</td>
<td>70.7%</td>
</tr>
<tr>
<td>8. I have trust and confidence in my supervisor.</td>
<td>59.5%</td>
<td>78.2%</td>
<td>81.1%</td>
<td>70.0%</td>
<td>63.6%</td>
<td>73.5%</td>
<td>46.2%</td>
<td>70.3%</td>
</tr>
<tr>
<td>9. My supervisor/team leader listens to what I have to say.</td>
<td>72.2%</td>
<td>80.2%</td>
<td>82.2%</td>
<td>80.0%</td>
<td>77.9%</td>
<td>81.2%</td>
<td>56.0%</td>
<td>78.2%</td>
</tr>
<tr>
<td>10. My supervisor/team leader treats me with respect.</td>
<td>75.7%</td>
<td>83.0%</td>
<td>82.8%</td>
<td>80.6%</td>
<td>80.9%</td>
<td>85.5%</td>
<td>69.2%</td>
<td>81.3%</td>
</tr>
<tr>
<td><strong>Supervisors Index Score</strong></td>
<td>69.1%</td>
<td>77.6%</td>
<td>80.3%</td>
<td>75.5%</td>
<td>70.4%</td>
<td>79.4%</td>
<td>57.3%</td>
<td>74.3%</td>
</tr>
<tr>
<td>11. I know how my work relates to ASPR’s goals and priorities.</td>
<td>86.5%</td>
<td>93.4%</td>
<td>85.6%</td>
<td>87.1%</td>
<td>72.2%</td>
<td>89.7%</td>
<td>80.8%</td>
<td>83.5%</td>
</tr>
</tbody>
</table>

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<td>53.3%</td>
</tr>
</tbody>
</table>
AUTHORS OF ACCESSIBLE WORD DOCUMENTS ALWAYS...

- Use styles to format and organize content
- Include text alternatives for images
- Choose fonts that work for digital content
- Avoid complex tables with merged cells
- Use high-contrast color combinations and redundancy for color
USING COLOR EFFECTIVELY

Do this…

- Ensure a 1:4.5 ratio between font and background colors
- Include a text alternative for information conveyed using color
- Print the document in grayscale to check for potential issues

Don’t do that…

- Convey information using color alone
- Overuse bright or saturated colors
- Choose a color scheme outside of your organization’s brand
COLOR EXAMPLES

**Contrast Ratio**

- **How to use**

  As you type, the contrast ratio indicated will update. Hover over the circle to get more detailed information.

  When semi-transparent colors are involved as backgrounds, the contrast ratio will have an error margin, to account for the different colors that may be near.

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**Fiscal Year 2020 Spend Plan Request**

- * indicates required field
- Hover form fields for instructions.

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date submitted</td>
<td>Required field. Select the date this form is being submitted from the calendar or use the keypad to enter. It is MM/DD/YYYY format.</td>
</tr>
<tr>
<td>Date modified</td>
<td></td>
</tr>
<tr>
<td>Modification approved</td>
<td></td>
</tr>
<tr>
<td>Executive summary</td>
<td></td>
</tr>
</tbody>
</table>

---

**Job title**

- -- choose a country --

**Location**

**Contract type**

- Full-Time Permanent

**Category**

- Administrative Clarial
  - Administrative Support
REMEDIATION & PROCESS IMPROVEMENT

FIXING WHAT’S BROKEN AND AVOIDING THE SAME MISTAKES IN THE FUTURE
HOW DO WE FIX WHAT’S ALREADY BROKEN?

- Test existing content and determine needs/requirements
- Triage issues and strategize how to resolve them
- Incorporate accessibility and usability into requirements, design, and development
- Mitigate future risks with training, process improvement, and TEMPLATES!
QUESTIONS & NEXT STEPS

- PDF accessibility is a new concept for many of you. It’s not impossible, but it can be overwhelming in the beginning.
- Digital accessibility also includes Web and multimedia content.
- We’re here to help!
  - Scott Trachtenberg – scott@adasitecompliance.com – 561.258.9515
  - Meredith Stevens – meredith@adasitecompliance.com – 561.258.9512
  - Jeremy Horelick – jeremy@adasitecompliance.com – 561.258.9518