

***AHEAD*** Association on  
Higher Education  
And Disability®



**CommonLook®**

Authoring Documents with Accessibility in Mind

ACCESSING HIGHER GROUND – NOV 20, 2019

# Agenda



Who's *this* guy?



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CommonLook's Director of Training

I had a life before this...

# When it Comes to Accessibility, Everyone Wins



## Accessible Design Benefits Everyone

- ✓ Easy to learn/use
- ✓ Sufficient contrast
- ✓ “Good Grips” (kitchen utensils)
- ✓ Siri / Alexa
- ✓ Speech to text
- ✓ Voice-enabled TV
- ✓ Video calls (Skype, etc.)
- ✓ Less (or no) remediation needed!

# Where To Begin? Know the Standards



WCAG 2.0



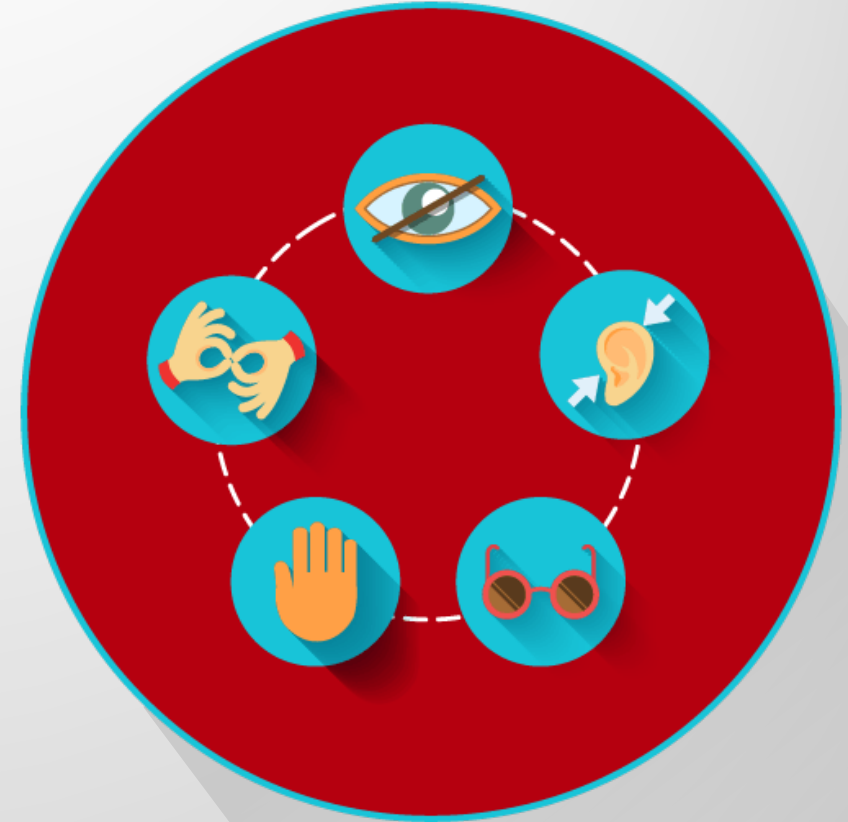
WCAG 2.1

**PDF/UA**

# WCAG 2.0 – ISO 40500



- Created by W3C / WCAG WG – for WEB content
- Intended to increase web accessibility for all
- Four Principles (POUR)
- 12 Guidelines with testable success criteria (A, AA, AAA levels)
- CAN be applied to PDF



# WCAG 2.1



- Updates/ improves WCAG 2.0
- If you pass WCAG 2.1, you pass WCAG 2.0
- Focus on improving web accessibility for people with:
  - ▶ Cognitive or learning disabilities,
  - ▶ Low vision, and
  - ▶ Disabilities on mobile devices.

# PDF/UA – ISO 14289



- Created by the PDF Association
- Specific to PDF
  - ▶ Based off of ISO 32000 – the PDF standard
- Three sections:
  - ▶ PDF files
  - ▶ PDF reader software
  - ▶ How AT reads PDF





# Similarities



- All are:
  - ▶ Technical standards
  - ▶ Internationally used
- Compliment each other without conflict
- None of them will dictate what you put on the page (generally speaking)

# Differences



- WCAG (2.0 and 2.1) – originally intended for WEB content,
- WCAG is more broad in scope,
- There are some instances where “a 1:1 mapping doesn’t exist.”

## In Addition - HHS



- The US Department of Health and Human Services has their own standard.
- Based on WCAG 2.0 AA.
- Additional checkpoints and requirements are included
  - ▶ File name requirements
  - ▶ Additional Metadata requirements



# Which to Choose?



- AIIM (Assoc. for Information and Image Management):  
“It is generally appropriate to consult the accessibility standard (if any) developed specifically for that technology.”

For PDF, that would be PDF/UA

- What about Section 508/ ADA (AODA, etc.)?!



# How Compliant Do We Have To Be?



# Document Creation



## General Concepts

# Begin with Built-In Functionality



- Styles (we'll come back to this)
- Lists
- Tables (we'll come back to this)
- Formatting
  - ▶ Column
  - ▶ DON'T use Enter, Tab, and Spacebar for alignment
  - ▶ “Other” alignment options – (Left, Center, Right, Justify)
- Other tools/ features as appropriate for your document

# Additional Considerations



- Font / Legibility
- Watch for obstructed content (PowerPoint, template re-use...)
- Running headers/ footers
  - ▶ What if the content needs to be read?
  - ▶ What if the footer (for example) contains a hyperlink?
- Color Use – it’s an “umbrella”
- Contrast
  - ▶ WCAG 2.0 – 4.5:1, 3:1 for large text, etc.
  - ▶ WCAG 2.1 – adds 3:1 for graphics and adjacent



# Styles



- In Word, for example, use H1 for the Title of the document (not the “Title” style)
- Creating your own?
  - ▶ Make sure they’ll be treated correctly by AT (structure, navigation, relationships, etc.)
  - ▶ Might be best just to edit the styles that are provided.
- Table of Contents(!)
  - ▶ Use the build in functionality!
  - ▶ Build off of styles
  - ▶ Start with H2 (“custom” in Word)
  - ▶ “Table of Contents” does not need to be in the Table of Contents!

# Images



- Depending on placement, reading order may have to be fixed in the PDF (Inline with text or text wrapping?)
- Provide Alt text!
- What if they are just decorative? (Word/ PPT, “mark as decorative” may not transfer to the PDF!)

# Hyperlinks



Use good formatting:

- What not to do...
- Show the URL?



# Forms



- **Make it “Fill then Print”**

Are you formatting in Word and adding form fields in Acrobat? Artifact the “underscores”!

- **Put the Label in the name (WCAG 2.1)**

- **Is it fillable by keyboard? (In PDF, “on blur” as well as “mouse up”?)**

- **Are tooltips accurate and sufficiently informative?**

- **Have required fields/ validation rules been set as needed?**

- **“Pointer cancellation” (WCAG 2.1) (Not limited to “just” forms – can apply to anything that can have a “down event” – links, for example, too.)**

- **Timing adjustable, Flicker, and “Time Outs” (WCAG 2.1) – probably won’t be issues for you**

# Tables



- When to use, when NOT to use!
- Are there lines? (Not a requirement but a “best practice”)
- Multi-page tables – do the column headers repeat?
- Are cells (or rows) split across the page break (not a requirement but a best practice to avoid this)
- “Merged” cells (spanning “multiples”) can be problematic
- Formatting!
  - ▶ Tabbing through correctly?
  - ▶ Layout? (Especially in Excel!)
- Is it too complex? (Understandable)



# The End?



What did I miss? How does it end up?

# Testing Docs



- **Before PDF creation and/or if it's staying in source format**
  - ▶ Use the built-in checker for what it's worth
  - ▶ HHS checklists can be helpful  
(<https://www.hhs.gov/web/section-508/making-files-accessible/index.html>)
- **PDF Checkers – NOT just Acrobat!!!**
- **Either way, make sure you verify EVERYTHING**
- **Is there a compliance report?**

# How Does the Document End Up?



## ■ Benefits of PDF

- ▶ Don't have to have the authoring program to read the document
- ▶ In Higher Ed – lot's of “old” scanned documents – retyping in Word!? UGH!
- ▶ Content and “accessibility” in different layers – allows for manipulation
- ▶ Tags allow for things like alt text/ other attributes (table summary, expansion text...)
- ▶ Support for table accessibility not available in Word, etc.

## ■ Drawbacks to going to PDF?

- ▶ When documents need to be edited
- ▶ “Some” AT doesn't process PDF according to standards  
Maybe it's time to pressure AT developers to follow specs.?



# Converting to PDF?



## ■ Export methods:

Various authoring products will have different ways to export to PDF – make sure that you choose the method that creates a tagged PDF!

## ■ Helpful third-party tools:

- ▶ CommonLook Office (Word and PPT to PDF):  
<https://commonlook.com/office/>
- ▶ MadeToTag (InDesign to PDF):  
<https://www.axaio.com/doku.php/en:products:madetotag>
- ▶ Acrobat plug-in in MS Word, PPT, etc.

# Automation?



- Clearly, there's a lot for authors to manually do/address/keep in mind
- Templates can be good – they can also be broken!
- Automated accessible PDF generation cannot happen without a template
  - Template needs to be created – and maintained – by someone who knows PDF accessibility!
- Automation can be great for creating PDFs from databases but probably not a real solution for the “one off” document

# Q & A



# Points of Contact



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