

# **ADA Compliance Wins for Digital Library Spaces**

An Infopeople Webinar  
November 18<sup>th</sup>, 2020  
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# Introduction

Welcome! I'm Elle. We're here today to discuss ADA compliance in online spaces as the COVID-19 pandemic has forced quick adoption by many libraries into digital programming.

For the purposes of this talk, when we say "accessible," we will not only be referring to people with disabilities. Accessible means able to be accessed by as many people as possible.

We want to reach the widest audience possible, and I'm here to help! I currently work full time as an accessibility specialist, and I hope to make these concepts more approachable! With that, let's get started!



# Objectives

By the end of this webinar, we should be able to:

- Define disability as outlined by the World Health Organization and recognize disability types covered by the Americans with Disabilities Act (ADA)
- Recognize the differences and similarities between accessibility, user experience (UX), and universal design for learning (UDL)
- Gain familiarity with the different legal standards of digital compliance that apply to libraries
- Perform accessibility checks in Microsoft Word, PowerPoint, and Adobe Acrobat
- Identify at least five strategies to ensure accessible digital programming

# What does Disability Mean?

How does it relate to the online space?

# Defining Disability

- There are many different definitions of disability, from medical to social and beyond. As disability covers the entire spectrum of human experience, for the purposes of this webinar we will be using an intentionally broad definition.
- “Disabilities is an umbrella term, covering impairments, activity limitations, and participation restrictions. An impairment is a problem in body function or structure; an activity limitation is a difficulty encountered by an individual in executing a task or action; while a participation restriction is a problem experienced by an individual in involvement in life situations. Disability is thus not just a health problem. It is a complex phenomenon, reflecting the interaction between features of a person’s body and features of the society in which he or she lives.”

— [Disabled World](#), *Definitions of Disability*



# Disability Statistics

- Disability may be temporary or permanent, acquired or inherited, and the World Health Organization estimates on their [Disability and health](#) page that over one billion people worldwide, or about an average of 15% of the world's population, currently have some form of disability.
- The likelihood of disability increases as poverty increases and as we age, and there is a [significant link between disability and poverty](#), as discussed by the Governance and Social Development Resource Centre (GSDRC). We should strive to keep this in mind when dealing with our most vulnerable library patrons.

# What is Assistive Technology?

- There are myriad types of disability, and all may affect online programming, including assistive technology commonly used to access content.
- Assistive technology, [according to the Assistive Technology Industry Association \(ATIA\)](#), is “any item, piece of equipment, software program, or product system that is used to increase, maintain, or improve the functional capabilities of persons with disabilities.”
- This may be ‘low tech,’ such as corrective lenses for people with slight visual impairment. How many people do you know that wear glasses and/or contacts?
- Assistive technology may also be more in-depth, such as screen readers to translate web pages into speech for the visually impaired.

# Important Types of Disability

- Visual Disability
  - Blindness vs low vision
  - Colorblindness
- Auditory Disability
- Motor Disability
- Cognitive Disability



# What's the Difference Between Accessibility and Universal Design?

How can we relate common educational practice to include accommodation and modification?

# A Note on Universal Design for Learning (UDL)

- As educators and librarians, you may be familiar with the principles of UDL. [CAST defines UDL](#) as “a framework to improve and optimize teaching and learning for all people based on scientific insights into how humans learn.”
- UDL attempts to improve learning for as many people as possible.
- Librarians are constantly trying to consider the variety of experience of their audience. Accessible design, i.e., ADA-compliant practice, is therefore one aspect of making more products and services which benefit everyone.
- Improving learning with UDL principles goes hand-in-hand with making sure that that learning is available to as many people as possible.



# What is Accessibility, Distinct from Universal Design or User Experience (UX)?

From [DO-IT](#):

- Accessible design is a design process in which the needs of people with disabilities are specifically considered.
- Universal design is a broader concept that is defined as “the design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design.”
- Usable design serves to create products that are easy and efficient to use. Usability has been defined as the “effectiveness, efficiency, and satisfaction with which a specified set of users can achieve a specified set of tasks in a particular environment.”



# Remember, It's the Law

Laws and compliance

# Different Laws that Relate to Compliance

- Section 504 of the Rehabilitation Act (1973) and the Section 508 Amendment (1998)
- Titles II and III of the Americans with Disabilities Act (ADA)
- Web Content Accessibility Guidelines (WCAG)

# How is Compliance Measured?

- Compliance to ADA and Section 508 standards in the United States, and many laws and regulations around the world, is based upon a set of guidelines known as the [Web Content Accessibility Guidelines](#) (WCAG), recommended by the [World Wide Web Consortium](#) (W3C).
- The guidelines are not the beginning and end of accessible practice but are an important legal and social standard of accessibility across the web.



# The POUR Acronym

- Though they are complex, the essence of these guidelines can be distilled into a helpful acronym when thinking of accessible content:
- Perceivable, Operable, Understandable, and Robust (POUR).
- By breaking down accessibility into these four aspects, we can keep as many people in mind as possible.

# The POUR Acronym: P

- Perceivable: Information should be **perceivable** to users. This may include text-based alternatives for things like images.
- Operable
- Understandable
- Robust

# The POUR Acronym: O

- Perceivable: Information should be **perceivable** to users. This may include text-based alternatives for things like images.
- Operable: Content should be **operable** by all users, meaning that they can successfully navigate it with enough time and keyboard functionality.
- Understandable
- Robust



# The POUR Acronym: U

- Perceivable: Information should be **perceivable** to users. This may include text-based alternatives for things like images.
- Operable: Content should be **operable** by all users, meaning that they can successfully navigate it with enough time and keyboard functionality.
- Understandable: Information should be **understandable** to all users. The text should have high readability, and not be needlessly complex.
- Robust

# The POUR Acronym: R

- Perceivable: Information should be **perceivable** to users. This may include text-based alternatives for things like images.
- Operable: Content should be **operable** by all users, meaning that they can successfully navigate it with enough time and keyboard functionality.
- Understandable: Information should be **understandable** to all users. The text should have high readability, and not be needlessly complex.
- Robust: Content should be **robust**. A technically accessible experience is not always an equitable experience, and we should maximize the compatibility of our content with assistive technologies as possible.

# Tying It Together

- Sound familiar? Many of the WCAG principles affect the quality of overall content when considering UDL principles, too!
- Our aim is always to reach as many people as seamlessly as possible.
- It is helpful to understand how all of these pieces move and fit together and evolve over time.
- The ADA is non-exhaustive, but it is a critical starting point as programming goes increasingly digital.



# Documentation

How do we approach it with all this in mind?

It's important to start with compliance from the beginning.

Making your documents, presentations, and PDFs accessible online will set you up for further success, and it's easier than you think!

Remediating a document later can be cumbersome and time-consuming.

# Accessibility in Microsoft Word

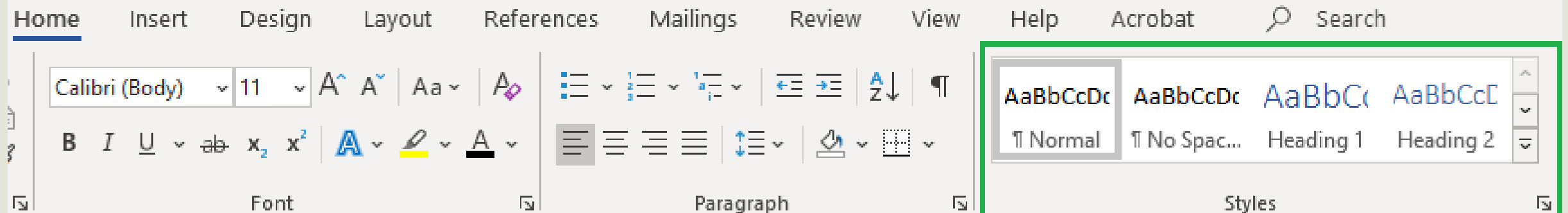
- Heading structure
- How to insert alternative text and layout images correctly
- How to perform an accessibility check in Word
- Things Word cannot check for, requiring the human element



# Accessibility in Microsoft Word: Headings

- First, you should make sure that your document contains headings, and that they occur in a logical order.
- In the Styles section of Word, you can choose and customize what kind of text you are writing, including headings. This helps keep the navigation of your document organized and predictable.
- Documents should begin with a Heading 1, and gradually move down between heading levels depending on topic importance. Note that in general, Heading 1 should only be used once.

# Word Styles Panel



# Accessibility in Microsoft Word: Alternative Text

- Next, we should ensure any images have alternative text (or are marked as decorative, if they are purely aesthetic).
- You may right-click any image in Word and an option to “Edit Alt Text” should be selectable.
- Alternative text should concisely describe the content and purpose of images. In Word 2019 and newer, there is a check box to mark an image as decorative if it is non-essential.



# Word Alternative Text Panel

## Alt Text

How would you describe this object and its context to someone who is blind?

*(1-2 sentences recommended)*

The styles section of the Word menu highlighted

Generate a description for me

☐ Mark as decorative ⓘ

# Accessibility in Microsoft Word: Color Contrast

- One more easy win for compliance is to ensure that text in your document has a high contrast level.
- Color contrast is essential to ensure readability in documents, especially for visually impaired or colorblind users.
- WCAG recommends a ratio of at least 3:1 for very large text, and at least 4.5:1 for all other text.
- An explanation of color contrast and a contrast calculator can both be found on WebAIM's [contrast checker](#).

# Color Contrast Examples

- In general, higher contrast makes text easier to read! Compare the two images below:

The five boxing wizards jump quickly.

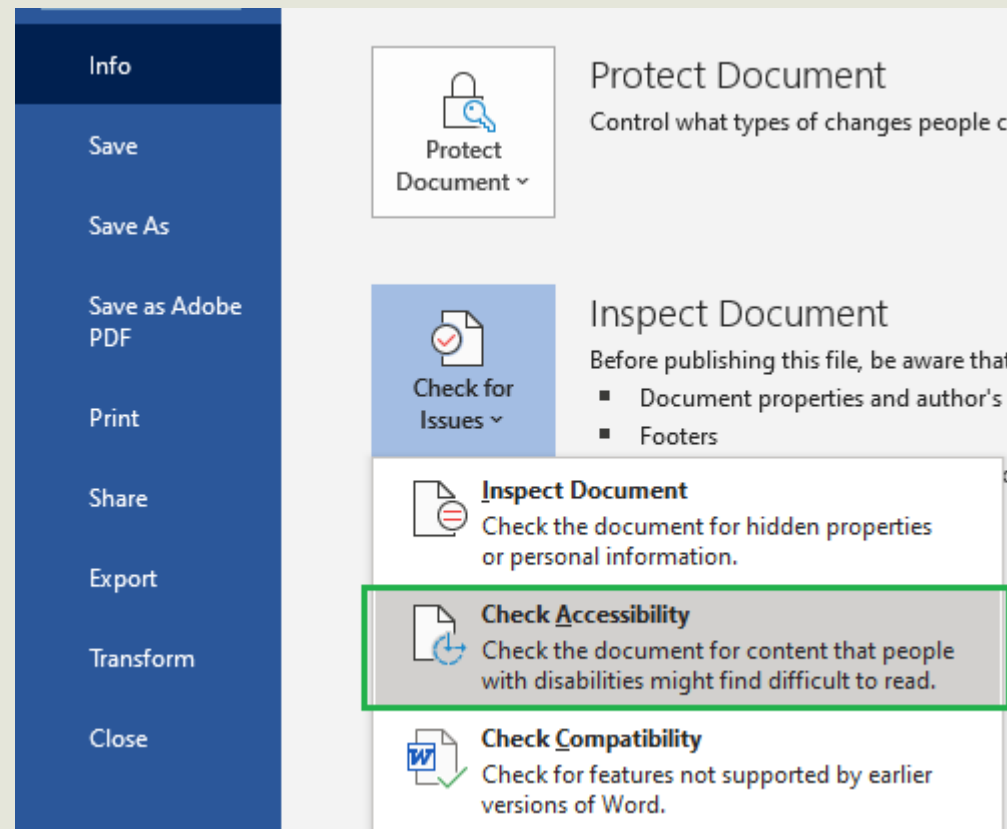
The five boxing wizards jump quickly.



# Accessibility in Microsoft Word: Accessibility Checker

- Microsoft has a wonderful landing page for [accessibility support in Word](#).
- Did you know you can automatically check a number of accessibility features with the built-in [Accessibility Checker](#)?
- By selecting File, then Info, then the Check for Issues dropdown menu, we are easily able to open the accessibility checker in Word.
- You can even keep it on while you work on a document! Word will automatically scan your document for any possible issues.

# Accessibility in Microsoft Word: Accessibility Checker Ex.



# Accessibility in Microsoft Word: The Human Element

- A word of caution! Word cannot automatically check everything.
- It cannot check if your alt text sufficiently describes the image
- It cannot check color contrast



# Accessibility in Microsoft PowerPoint

- Accessible templates that Microsoft makes available for download
- The importance of beginning with a strong template
- Aesthetics vs. function: basic is sometimes better!
- Accessibility checks in PPT
  - PPT cannot check for the same things as Word, but additionally:
- Screen reader focus order in PPT, and why these templates matter

# Accessibility in Microsoft PowerPoint: Templates

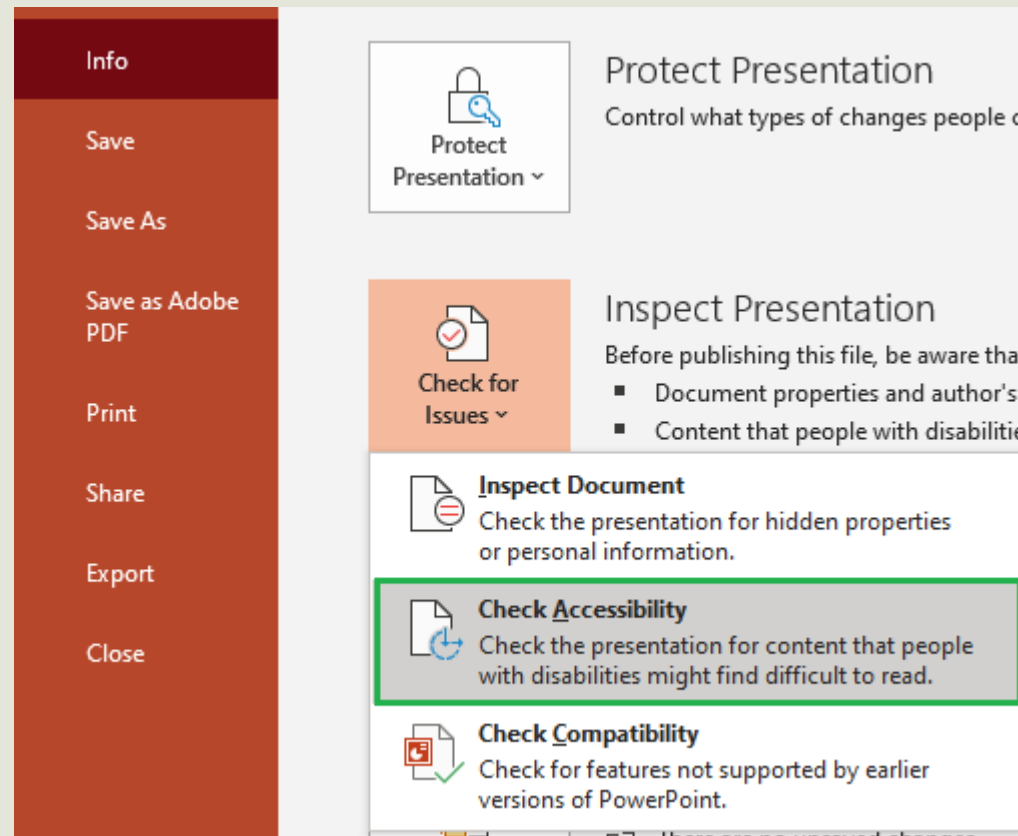
- Did you know that PowerPoint has built-in functionality for people with disabilities to allow screen readers to navigate slides?
  - There is even a [sample page of accessible PowerPoint templates](#) that can be easily customized to your needs!
- Often, we may be tempted to start from scratch and heavily customize our PowerPoint presentations to make them as spiffy as possible. However, this can run the risk of altering the *read order* of assistive technology within the slides.
- Starting from an accessible template is a simple way to avoid this. But what if that's not possible?

# Accessibility in Microsoft PowerPoint: Accessibility Checker

- PowerPoint also has a built-in accessibility checker like Word and is found using the same method. Additionally, PowerPoint contains the ability to customize read order on slides that have been customized.



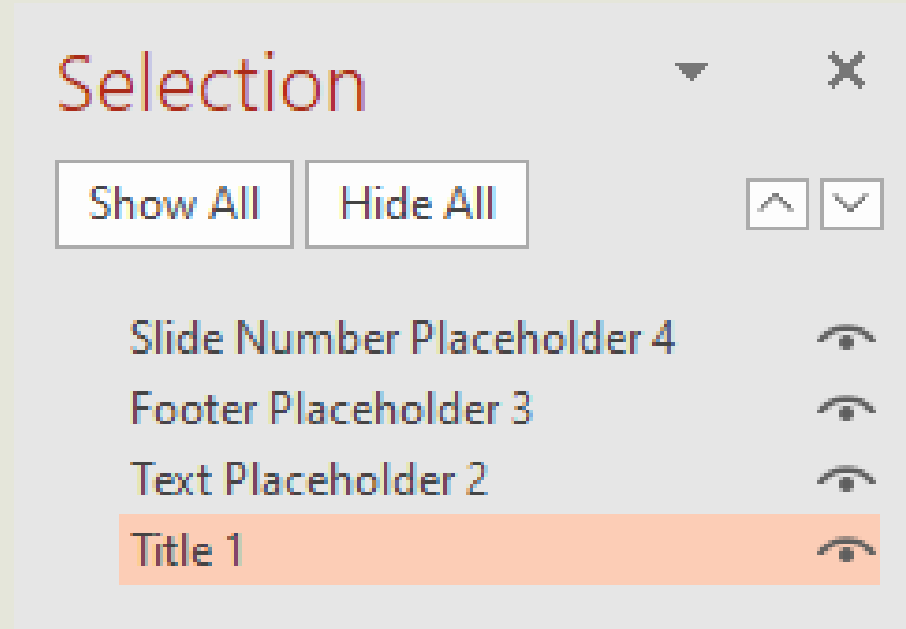
# Accessibility in Microsoft PowerPoint: Accessibility Checker Ex.



# Accessibility in Microsoft PowerPoint: Read Order

- The PowerPoint accessibility checker will let you know if there are issues with the read order of your slides and allow you to change them to be in a logical order.
- If you'd like to open this open manually, Go to Home > Arrange > Selection Pane to bring up the read order of each slide.
- It's important to **note** that each slide will be read from the bottom to the top. That is, if you see your slide title at the bottom, it will be read first!
- The selection pane will help you ensure your slides are being read in the order you need them to be.

# Accessibility in Microsoft PowerPoint: Selection Pane





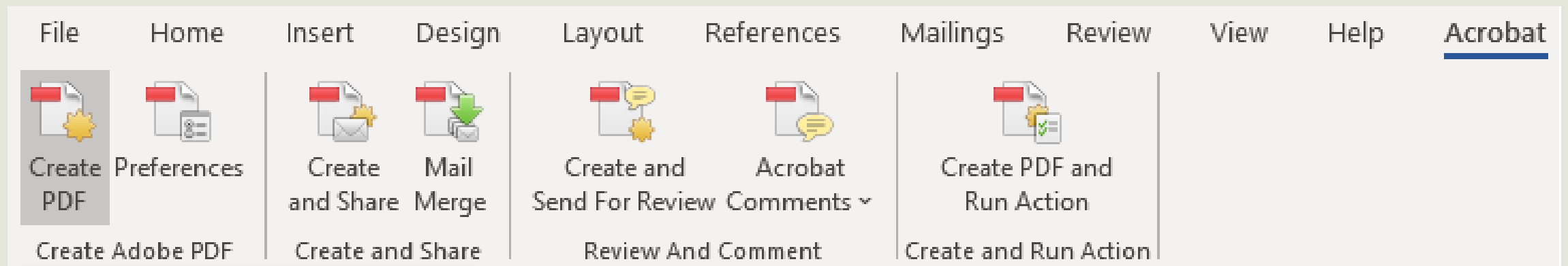
# Accessibility in Adobe Acrobat Pro

- PDFs are some of the most difficult documents to remediate if not done well the first time!
- The correct tab to use to export a document to Acrobat to preserve tagging
- The accessibility features of Acrobat Pro DC
- Briefly touch on tagging things by hand, and why this can be so cumbersome later
- The accessibility checker in Acrobat, and what some of the errors mean

# Accessibility in Adobe Acrobat Pro: Acrobat Tab

- PDF accessibility can be a bit trickier than Word and PowerPoint documents.
- The first step is to ensure we are exporting documents to PDF format properly. In Word and PowerPoint, there is an Acrobat tab at the top of the menu bar.
- It is from **here** that we should select “Create PDF” in order to preserve as much as possible.

# Accessibility in Adobe Acrobat Pro: Acrobat Tab Ex.

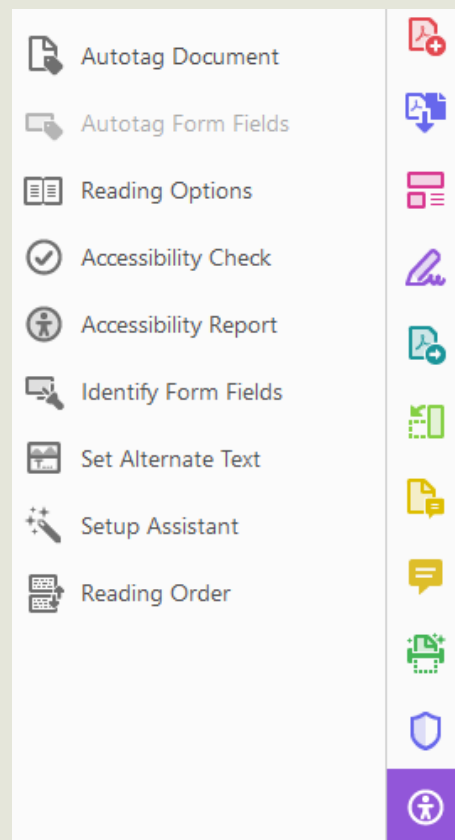




# Accessibility in Adobe Acrobat Pro: Tools Menu

- In the Tools menu of Acrobat Pro will be a tool called “Accessibility,” with the ability to pin it to the right-hand toolbar of your program window.
- The accessibility tool in Acrobat is robust, including both Accessibility Check and Accessibility Report features, as well as the ability to automatically tag a document with necessary information for assistive technologies.
- Setting alternative text and read order may also be accessed from this menu.

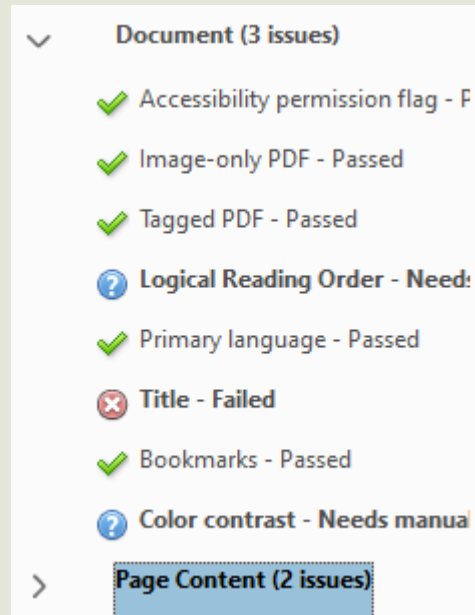
# Accessibility in Adobe Acrobat Pro: Tools Menu Ex.



# Accessibility in Adobe Acrobat Pro: Understanding Errors

- Adobe has an article on [accessibility features](#) that explains what each function does
- WebAIM has a series of [articles on PDF accessibility](#) that is exhaustive and helpful when remediation is the only option.
- Tagging things by hand is extremely time-consuming, and an accessible base document is a great start to avoid headaches later.

# Accessibility in Adobe Acrobat Pro: Understanding Errors Ex.





## Accessibility in Adobe Acrobat Pro: Understanding Errors Ex. 2

- In the figure below, the read order is incorrect because the PDF was not tagged correctly in the beginning. It requires manual remediation.



# Accommodating Everyone Online

How do we take accommodations from our physical library space to an online space?

How do we take accommodations from our physical library space to an online space?

How does this change our thinking about disability, and impact our audience reach?

How can we tie digital accessibility and ADA compliance in with other principles of design (UDL) to create the best and most seamless programming experience possible, even during the COVID-19 pandemic?



# Live Programming Wins

- Live closed captions
- Live ASL translation
- Full transcripts and closed captions once videos are published
- Avoid color as the only way to convey meaning
- Spell out acronyms and abbreviations the first time you use them
- Describe any imagery that is content-relevant on-screen



How do we carry this beyond live programming?

By restructure our thinking moving forward to broaden our reach, we can make sure we are adding to the freedom of online programming for every person.

With increased compliance, our potential audience increases as well. Everyone deserves access to story times.

# Questions?



# Contact Me

You may find me at the following locations:

[LinkedIn](#)

[Email](#)