

Great Lakes ADA Center
A Member of the ADA National Network

800-949-4232 (TDD)
www.glaadcenter.org

ACCESSIBLE TECHNOLOGY WEBINAR SERIES

A collaborative of the Great Lakes, Southeast and Great Plains ADA Centers

Southeast ADA Center Great Lakes ADA Center GREAT PLAINS ADA CENTER

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ROCKY MOUNTAIN ADA CENTER
CO, MT, WY, SD, ND, UT, WY

Creating Accessible Digital Documents

Emily Shuman, Rocky Mountain ADA Center

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Disclaimer


Information, materials, and/or technical assistance are intended solely as informal guidance, and are neither a determination of your legal rights or responsibilities under the ADA, nor binding on any agency with enforcement responsibility under the ADA.

The Rocky Mountain ADA Center, operated by Meeting the Challenge, Inc., a CP&Y Company, is funded under a grant from the National Institute on Disability, Independent Living, and Rehabilitation Research (NIDILRR grant number 90DPAD0009-01-00) to provide technical assistance, training, and materials to Colorado, Utah, Montana, North Dakota, South Dakota, and Wyoming on the Americans with Disabilities Act.


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Rocky Mountain ADA Center



- Technical Assistance
- Refer and Network
- Conduct Research
- Provide Training
- Publish & Share Materials
- Social Media




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Learning Objectives



- Understand how people with disabilities use technology and experience digital documents
- Learn the characteristics of an accessible digital document
- Practical tips for ensuring document accessibility



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Assistive Technology



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Blind / Low Vision / Visual Disability

- People with visual disabilities can include users that are blind, have low vision, or are color blind.
- In most cases, users who are blind use a screen reader to access electronic documents.
- A screen reader uses the structure of a document to present the text audibly to the user.



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Screen Magnifier

- A person with low vision may need to enlarge the content within the document to make it more legible to them.



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Deaf / Hard of Hearing / Auditory Disability



- Rely on the use of captions and transcripts for all audio and multimedia content
- May not be native English-speakers, therefore plain language is a best practice

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Plain Language

Plain Language

- Short, simple, and to the point
- Conversational
- Familiar language
- Actionable

Medicaid Eligibility

This example was created for training and is not official agency text.

✗ Before

Medicaid Apply if you are aged 65 years old or older, blind, or disabled and have low income and few resources. Apply if you are terminally ill and want to receive hospice services. Apply if you are aged, blind, or disabled, live in a nursing home, and have low income and limited resources. Apply if you are aged, blind, or disabled and need nursing home care, but can stay at home with special community care services. Apply if you are eligible for Medicare and have low income and limited resources.

✔ After

You may apply for Medicaid if you are:

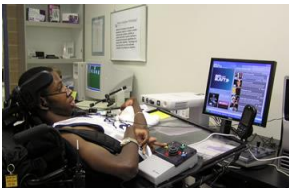
- Terminally ill and want hospice services
- Eligible for Medicare and have low income and limited resources
- 65 years old or older, blind, or disabled and have low income and few resources and:
 - Live in a nursing home
 - Need a nursing home care but can stay at home with special community care services.

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Physical / Mobility Disability

- Limited muscular control such as involuntary movements including tremors, lack of coordination, or paralysis.
- May have trouble maneuvering a mouse; must be able to navigate document with keyboard.
- May use mouth stick, eye-tracking device, or a sip and puff device in place of a traditional keyboard.




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Cognitive / Learning / Neurological Disability

- One of the largest disability groups.
- Involves neurodiversity and neurological disorders, as well as behavioral and mental illness.
- Impacts how well people hear, move, see, speak, and understand information.
- Design content with plain language and structure in a logical and understandable order.

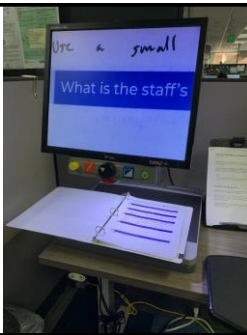


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Assistive Technology Definition

- Assistive technology 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.
- Includes screen readers, screen magnification, high-contrast settings, software and hardware.



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Assistive Technology Examples

- On-screen Keyboards
- Voice Recognition Software
- Screen Readers
- Screen Adjustment Programs



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Screen Reader

- Allows users that are blind or have low vision to read the text that is displayed on the computer screen with a speech synthesizer or braille display.
- Interface between the computer's operating system, its applications, and the user.
- The user sends commands to instruct the speech synthesizer what to speak automatically when selected on the computer screen.



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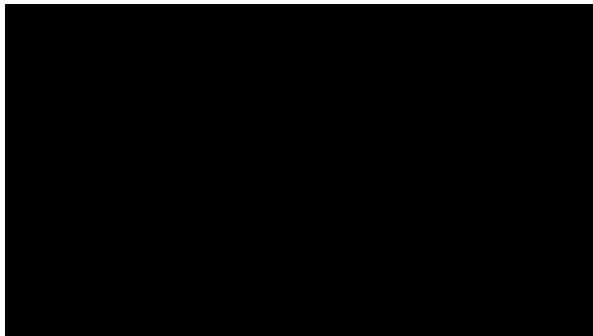
Refreshable Braille Display

- Electronically raises and lowers different combinations of pins in braille cells.
- Shows up to 80 characters from the screen and changes continuously.
- Complements the standard keyboard and screen reader.
- Primarily used by the deaf-blind.



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Document Accessibility

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Creating Accessible Documents – File Name

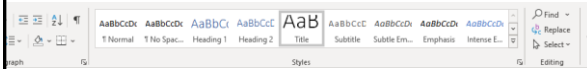
- Save the document with a descriptive file name that helps identify the document or its purpose right away.
- Helps everyone locate, open, and switch between documents.



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Creating Accessible Documents - Styles

- Use built-in styles.
- Assistive technology can infer meaning from the document structure and formatted characters in the style.



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Creating Accessible Documents - Headings

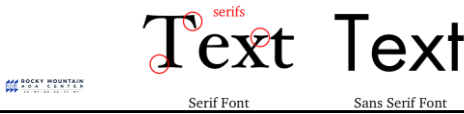
- Headings organize content and make finding information easier.
- Assistive technology cannot recognize meaning if you just format the text.
- Heading styles create a structure that assistive technology can quickly access, and aid document navigation based on the heading levels.



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Creating Accessible Documents - Font

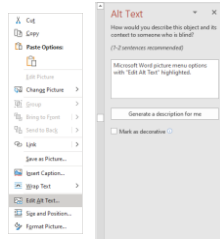
- Font size should be at a minimum 11 point for normal print. 16 point is recommended.
- Font size should be at a minimum 14 point for large print. 18 point is recommended.
- A sans-serif or non-serif font is recommended because when the text is magnified, the serifs in the fonts do not smooth well and the text can look blocky.
- Non-serif fonts are Arial and Calibri. Serif fonts include Times New Roman and Century.
- Avoid using all capital letters.



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Creating Accessible Documents – Images

- Assistive technology cannot infer meaning from images.
- Alternative text must be added.
- Alt-text should be brief and clearly expressed.
- Microsoft Word will auto generate alt text; update for accuracy.
- Mark the image as decorative if the image should be looked over by assistive technology.



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Alternative Text

- Alt text should be concise and meaningful.
- It should communicate what is important in the picture but does not need to be overly specific.



Too much: Belgian homemade waffles covered in blueberries and rainbow-colored sprinkles on pink plates with embroidered napkins and a cup of tea with milk and a teapot all laid on hexagon white tiles.

Just right: Appetizing breakfast of waffles with toppings and tea.



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Alt Text - Context

Accessibility Related

Parking lot outside a shopping center.
Cart return is in the access aisle between two accessible parking spaces.

General Description

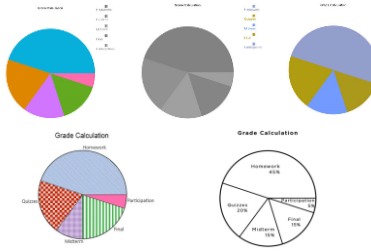
Parking lot of a shopping center with cars and shopping cart return.



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Creating Accessible Documents - Colors

- Color should not be the only means of conveying information.
- There should be sufficient contrast for text and background colors.



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Creating Accessible Documents - Contrast



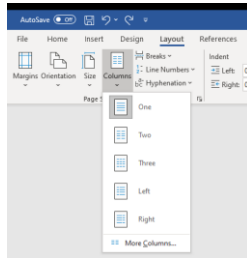
- Use high contrast.
- For text less than 18 point or 14 point bolded, there should be a contrast of 4.5:1 or more.
- For text larger than 18 point or 14 point bolded there should be a contrast of 3:1 or more.
- Avoid laying text over images.



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Creating Accessible Documents - Columns

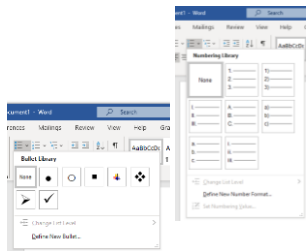
- Screen readers and assistive technology cannot read information in the correct reading order when using tabs or spaces to separate content into columns.



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Creating Accessible Documents - Lists

- Assistive technology cannot recognize meaning if you format lists.
- Use built-in list features.
- A bulleted list allows a user to navigate to each list item.
- A bulleted list will also be identified by a screen reader and tell the user how many items are in the list.



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Creating Accessible Documents - Links

Hyperlinks must have meaningful names to determine the destination, function, or purpose.



There are several things to consider in [creating accessible link text](#).
Learn the [difference between accessible, usable, and universal design](#).
Questions? Request a consultation at eshuman@cpyi.com.



There are several things to consider in creating accessible link text. [Learn more](#).
[Click here](#) to learn the difference between accessible, usable, and universal design.

Questions? [Click here](#).



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Creating Accessible Documents – Tables (1 of 5)

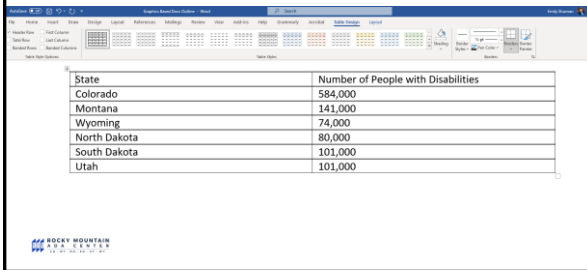
- Tables cannot contain split cells, merged cells, or nested tables.
- Blank cells in a table can also be misleading.
- Visual formatting needs to be applied with table border control rather than blank rows or columns.
- Table summaries can be helpful in describing the purpose of a table.



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Creating Accessible Documents – Tables (2 of 5)

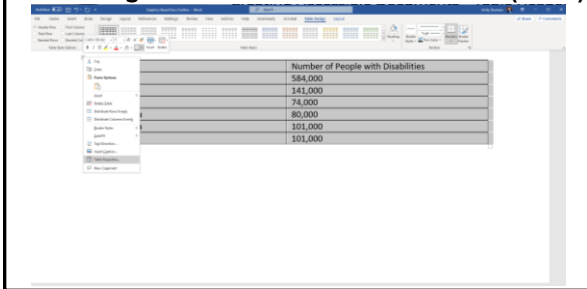


State	Number of People with Disabilities
Colorado	584,000
Montana	141,000
Wyoming	74,000
North Dakota	80,000
South Dakota	101,000
Utah	101,000

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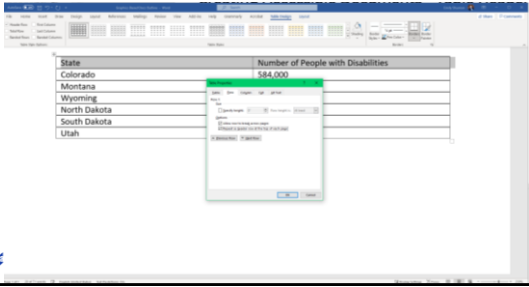
Creating Accessible Documents – Tables (3 of 5)



State	Number of People with Disabilities
Colorado	584,000
Montana	141,000
Wyoming	74,000
North Dakota	80,000
South Dakota	101,000
Utah	101,000

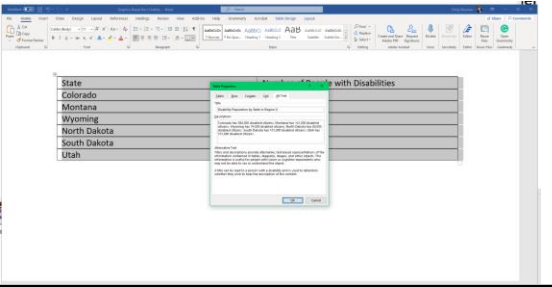
33

Creating Accessible Documents – Tables (4 of 5)



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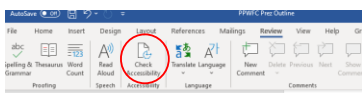
Creating Accessible Documents – Tables (5 of 5)



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Creating Accessible Documents - Review

- Review for accessibility before we convert to a PDF.
- Check for errors in the inspection results.
- If there are any errors, follow the recommended actions.



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PDF Accessibility



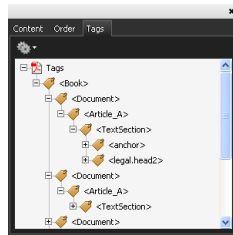
- Not all PDFs are the same.
- Enable users to exchange and view electronic documents easily and reliably, independently of the environment in which they were created.



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PDF Accessibility - Tags

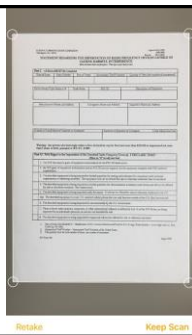
- PDFs use document structure tags for screen reader readability.
- Structure tags identify headings, paragraphs, sections, tables, and other page elements.



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PDF Accessibility - Scanning

- Scanning a document to a PDF makes it inaccessible.
- Scanned images of text must be manually converted to searchable text using optical character recognition (OCR) before accessibility features will work.



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Learn more and register at
www.ada-accessibletech.org
 Mark Your Calendars for the Next Webinar:
November 11, 2021
 Topic to be determined



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Session Evaluation
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You will receive an email following the session with a link to the on-line evaluation

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Next Session:
 Thursday, January 20, 2022

To be announced – watch your email/website for announcement

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