

# **Document Accessibility:**

**A Basic Overview Incorporating Universal Design**

**Presenter: Valerie Morrison, Ph.D.  
E-Text Manager, CIDI**

**CREATING THE NEXT®**

# Live Captions Provided

## Two Options:

1. Access StreamText link available in the “Chat” (“Chat” control in Zoom toolbar)
2. Access the “Closed Captions” option (“Closed Captions” control with “CC” above it in Zoom toolbar)



# Spotlighting and Pinning

## Spotlighting

Only Host or Co-host can spotlight someone

Whoever is spotlighted will appear in Speaker View

## Pinning

Any participant can pin any other participant's video at any time, and it only impacts that participant's display

## How to Spotlight/Pin Participants

Hover over participant you want to spotlight/pin

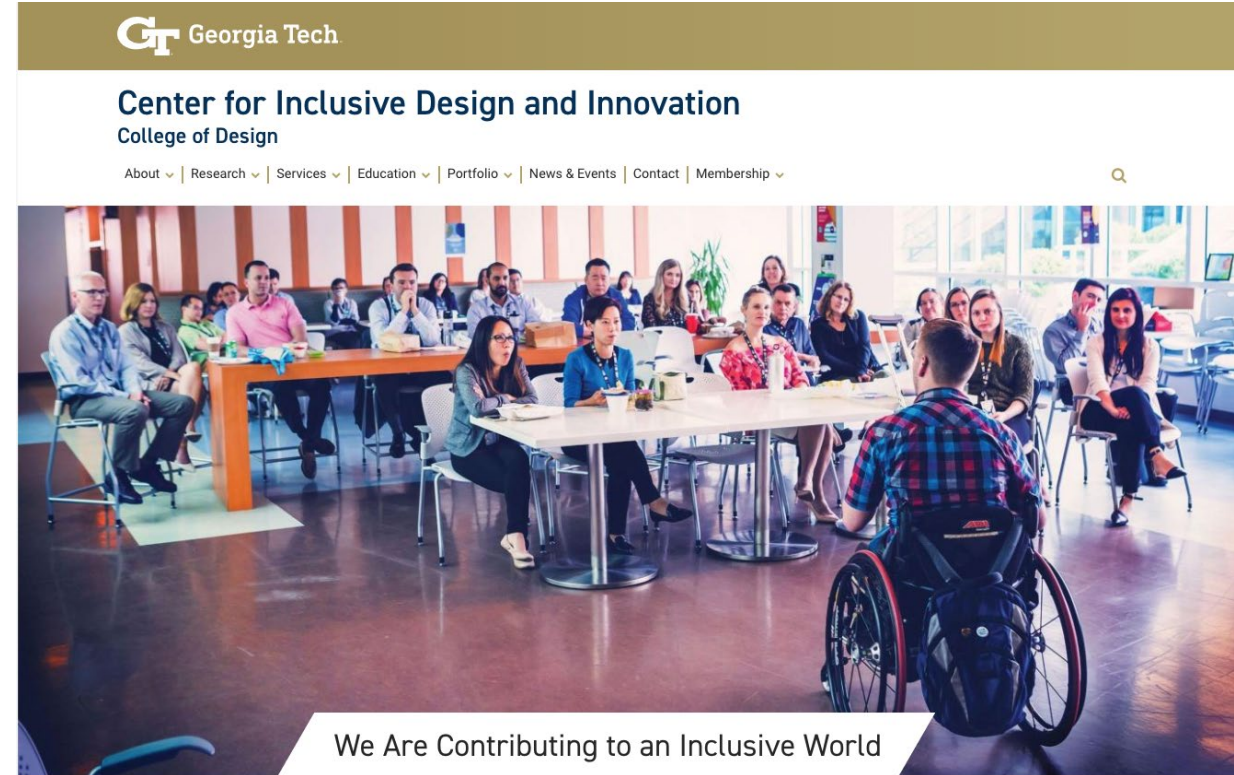
Select the ellipses (...)

From the menu, choose "Spotlight for Everyone" or "Pin"



# Georgia Tech – CIDI

- Research (disability-related)
- Accessibility Consulting – ICT and UX
- Braille Services
- Captioning and Described Audio Services
- Professional E-Text Producers
- Certified Assistive Technology Team
  - Tools for Life is celebrating 30 years of service in 2021!



# Goals for Today's Presentation

1. Discuss document accessibility and who uses assistive technology to access content
2. Review 3 key aspects of document accessibility:
  - Accessible Navigation
  - Universal Design Choices
  - Image Description



# Today's Presenter

## **Valerie Morrison, Ph.D., E-Text Manager at CIDI**

Valerie Morrison manages the E-Text department at CIDI, making accessible materials for individuals with print-related disabilities. She earned her doctorate in English Literature from the University of Georgia and served as an instructor of composition, contemporary poetry, American and British literature, and the postmodern novel.

Now, Valerie and her team find innovative ways to transform course materials quickly and affordably into a wide variety of accessible digital formats. Valerie and her team work with university staff, publishers, corporations, and state agencies to ensure the material they create and distribute will be accessible to those who rely on screen readers, text to speech software, or other assistive technology to access documents.



# **Document Accessibility**

# Defining Accessibility

## **Conversational accessibility (to understand):**

Can someone access the difficult language in this journal article?

Will fans find Westworld inaccessible because it has such a complicated plot?

## **Physical accessibility (to get in):**

Can someone access the building with a Buzzcard or do we need to be let in?

Will I be granted access to Canvas to view our discussion posts?

## **Digital accessibility (to meet accessibility guidelines):**

Can someone navigate through this document with accessible headings?

Will images be described in this file with accessible alternative text?



# What Needs to Be Accessible?

Ideally, everything in an educational environment or posted online should be made accessible:

- Textbooks and Course Materials
- Course Syllabi and Exams
- Course Packets
- Courses Websites
- Readings and Handouts
- PowerPoint Lectures



# Who Needs Accessible Documents?

**Digital Accessibility means that your documents and websites are accessible to individuals using assistive technology.**

- Individuals who are blind, or experience color blindness or low vision
- Individuals with learning disabilities such as dyslexia, dyscalculia, dysgraphia, or ADHD
- Individuals with head injuries, trauma, or cognitive disabilities
- Auditory learners
- Aging population
- Everyone

# Assistive Technology in Action



Harley's Story: Using Assistive Technology in the Classroom

# 3 Tips for Greater Accessibility

**Keep these 3 ideas in mind for greater accessibility across all programs:**

1. Is my content easy to navigate?

*Have I created headings and bookmarks for easy navigation?*

2. Are my design choices accessible?

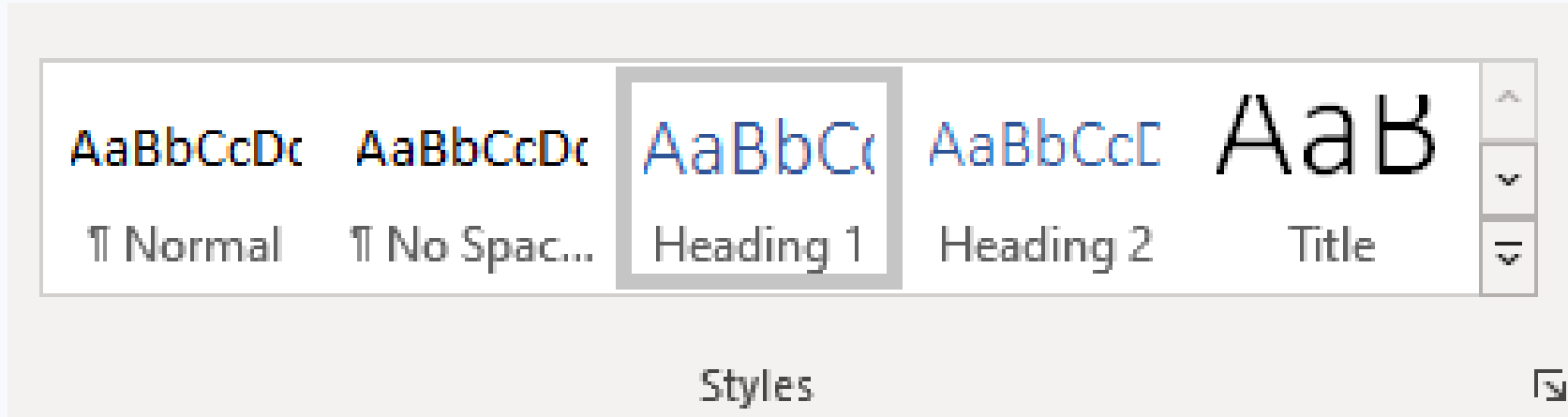
*Have I chosen fonts, colors, and backgrounds that are easy to discern?*

3. Are my visuals clearly and fully described?

*Have I written alt text descriptions and captions for my images?*

# Accessible Navigation

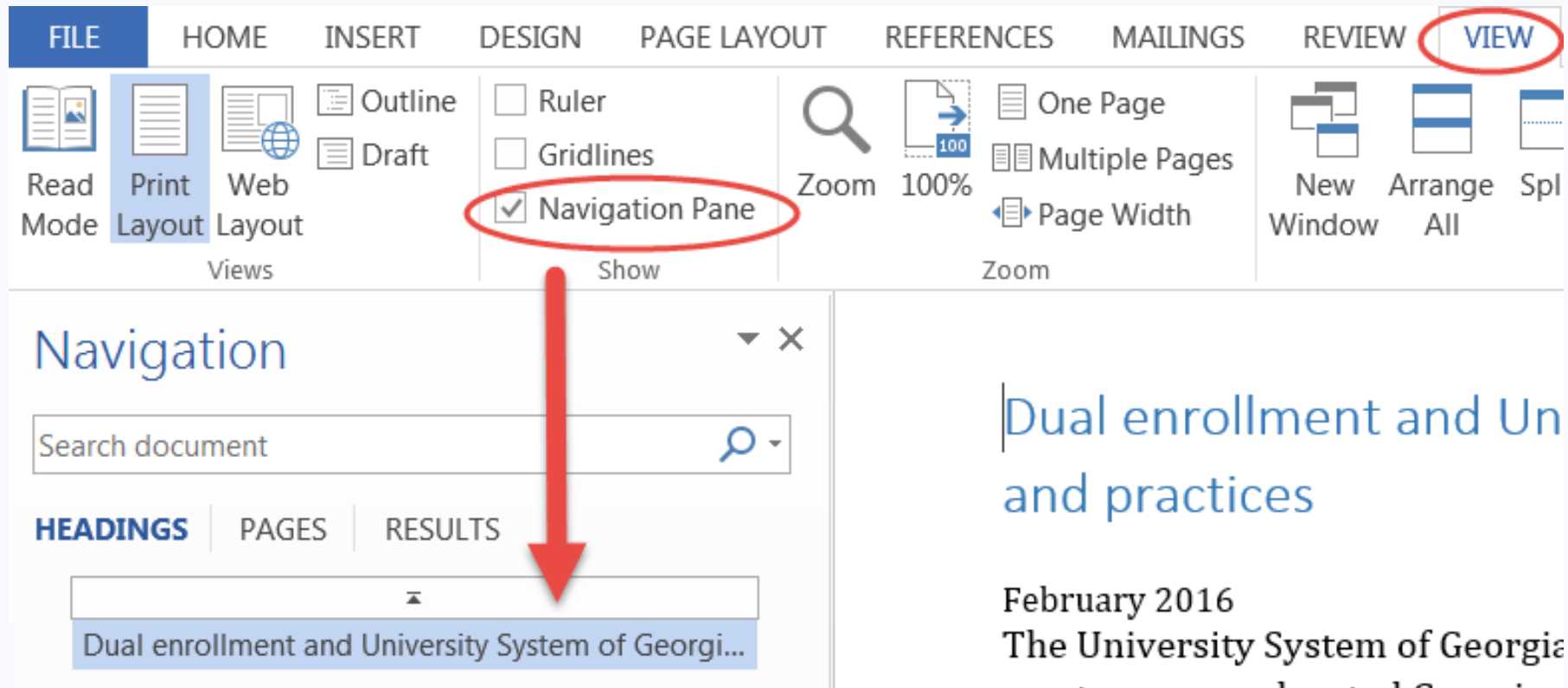
# Adding Accessible Headings in Microsoft Word



- Highlight a word or line in your document and select a Heading Level in the Styles group on the Home Ribbon.
- Add different levels of Headings to provide organizational structure and allow individuals using assistive technology to easily navigate your content.

# Viewing Headings in the Navigation Pane

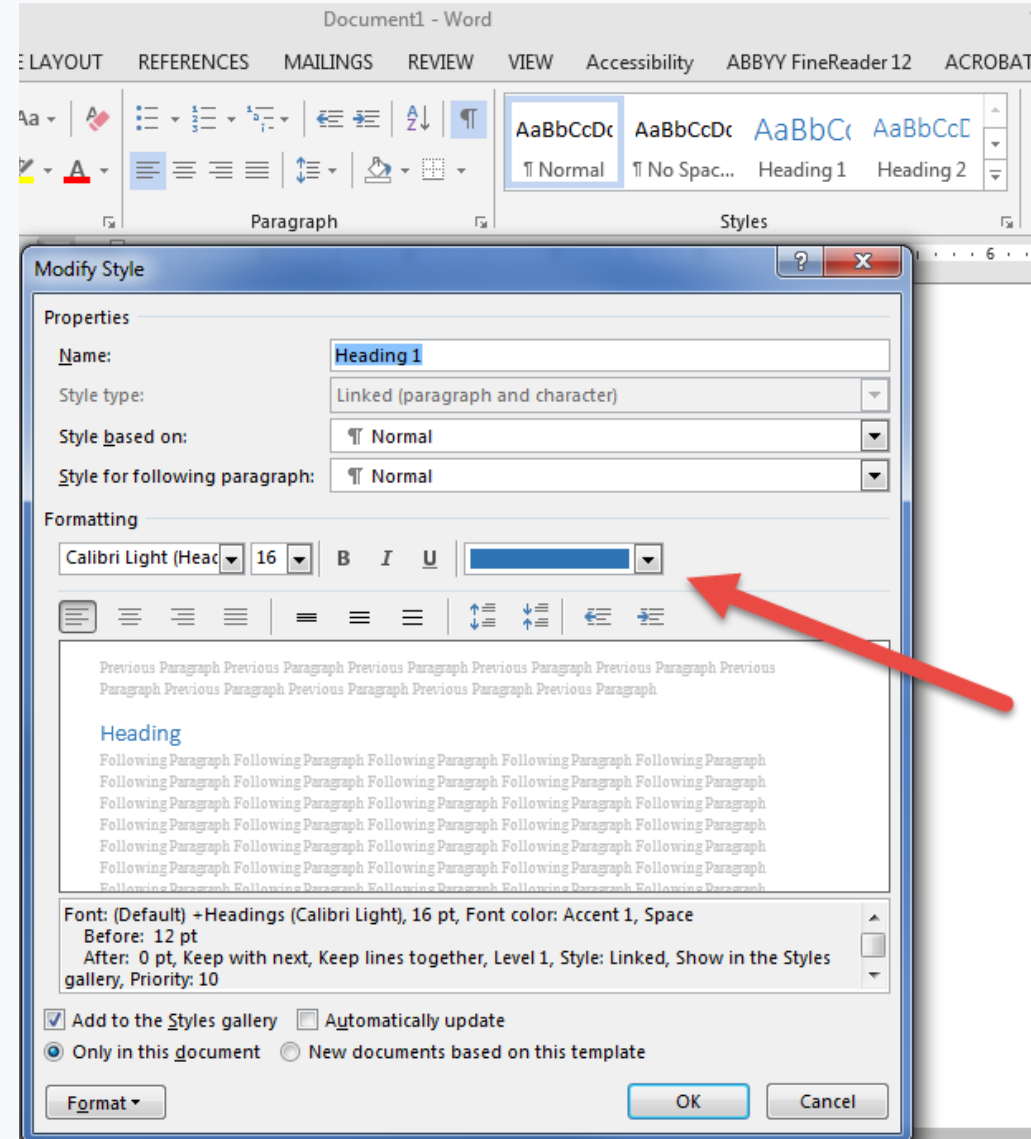
Click the View Tab and check the Navigation Pane box to view all the headings in the document.





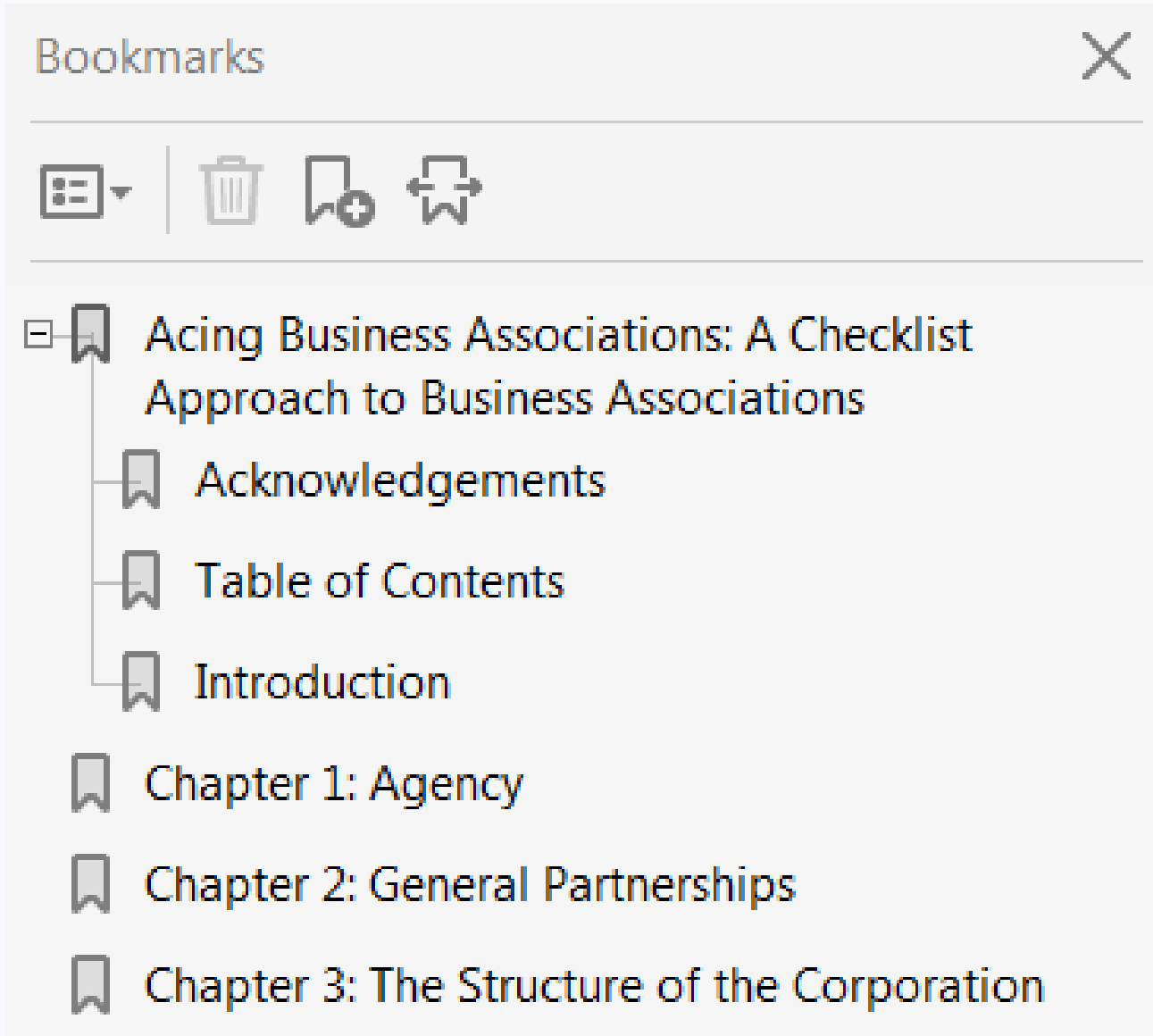
# Customizing Headings

- Heading styles can also be customized to retain your style preferences while also adding meaningful structure for screen reader users.
- Right click on a Heading Style on the Home Tab and then select Style to modify your formatting options.





# Adding Bookmarks for PDF Files in Adobe Acrobat



- Highlight text and right click, or press CTRL + B to create bookmarks.
- To adjust the hierarchy, drag them up and under the “parent bookmark” so they appear indented.
- You can edit the text of a bookmark, to include the word “Chapter” for instance.

# Adding Descriptive Slide Titles in PowerPoint

- Each slide should have a unique descriptive title to help someone navigate through the presentation.
- Slide titles help everyone understand and focus on your key points and know where you are in your presentation.

## 3 ☐ **CIDI's Products and Services**

- E-Text Services
- Braille Services
- Captioning and Audio Description Services
- Certified Assistive Technology Tools for Life Team
- ICT Accessibility Consultations and Website Evaluations

## 4 ☐ **Goals for Today's Presentation**

1. Discuss the top three considerations for document accessibility:
  - clear navigation
  - alt text for images
  - simple design
2. Provide an overview of PowerPoint accessibility

## 5 ☐ **Document Accessibility Tips**

## 6 ☐ **Who Needs Accessible Documents?**

Digital Accessibility means that your documents and websites are accessible to individuals using assistive technology.

- Individuals who are blind, or experience color blindness or low vision
- Individuals with learning disabilities such as dyslexia, dyscalculia, dysgraphia, or ADHD
- Individuals with head injuries, trauma, or cognitive disabilities
- Auditory learners
- Aging population
- Everyone

# Universal Design Choices

# Defining Universal Design

- **Definition:** Universal Design is the design and composition of an environment so that it can be accessed, understood and used to the greatest extent possible by all people regardless of their age, size, ability or disability.
- The 7 principles of Universal Design are as follows:
  1. Equitable Use
  2. Flexibility in Use
  3. Simple and Intuitive Use
  4. Perceptible Information
  5. Tolerance for Error
  6. Low Physical Effort
  7. Size and Space for Approach and Use

# Document Design and Style Considerations

- Font size. Sans serif fonts are best (Calibri, Arial, Verdana, Helvetica, Geneva).
- Font style. Avoid large amounts of italicized, bold, underlined, or capitalized text.
- Color choices. Do not rely on color coding alone to convey meaning.
- Color contrast. The colors of text and background should have a high contrast ratio to reduce eye strain (yellow text on black background is most accessible).
- Backgrounds and images. Avoid busy patterns that are bright and distracting.

# Accessible Fonts

- Font size should be 12 point font minimum to be read by most users.
- Sans serif fonts are best: Calibri, Arial, Verdana, and Geneva.
- Avoid large amounts of italicized, bold, underlined, or capitalized text.

Center for Inclusive Design and Innovation (Calibri)

Center for Inclusive Design and Innovation (Arial)

Center for Inclusive Design and Innovation (Verdana)

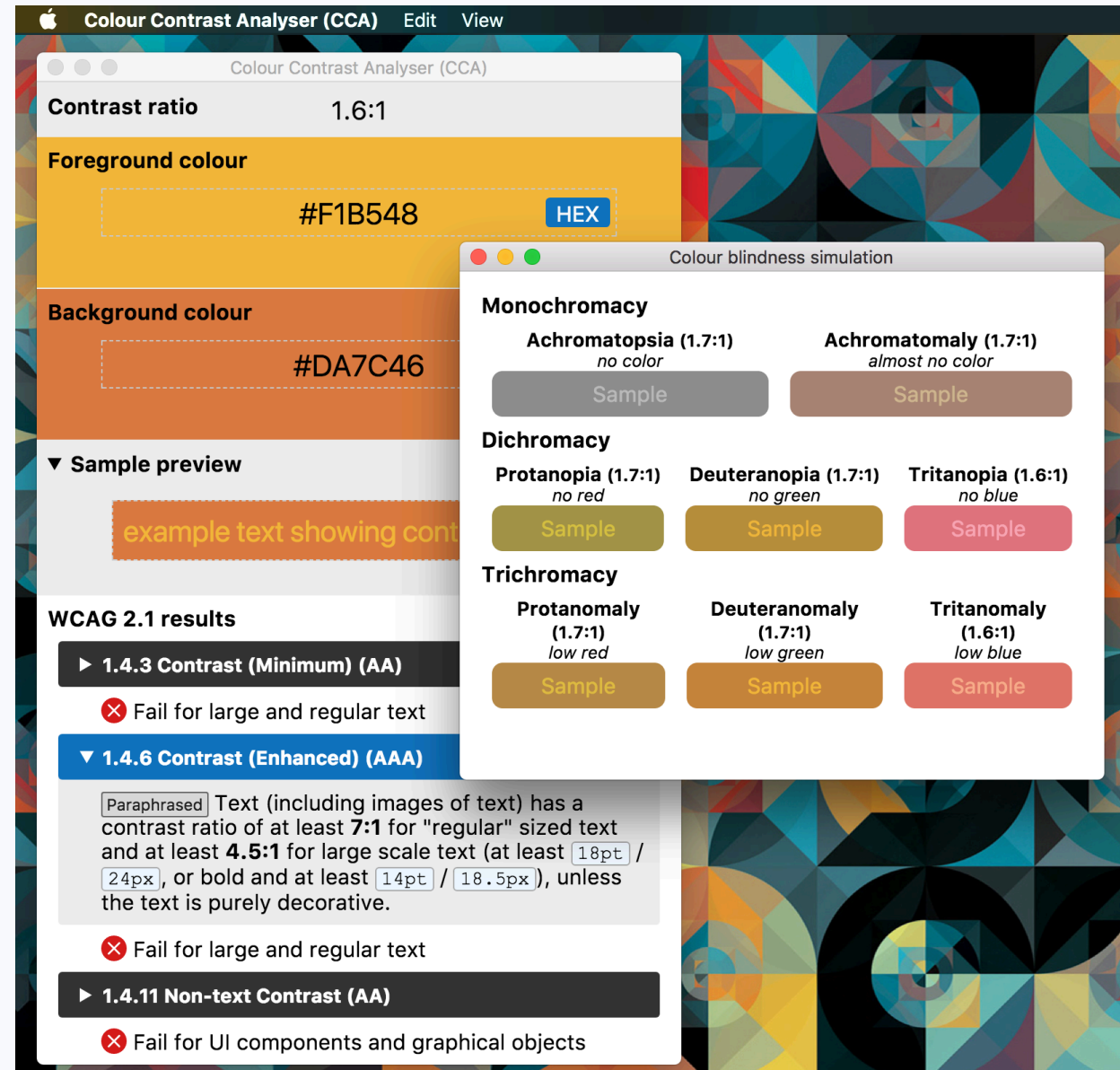
Center for Inclusive Design and Innovation (Times New Roman)

Center for Inclusive Design and Innovation (Georgia)

*Center for Inclusive Design and Innovation (Script)*

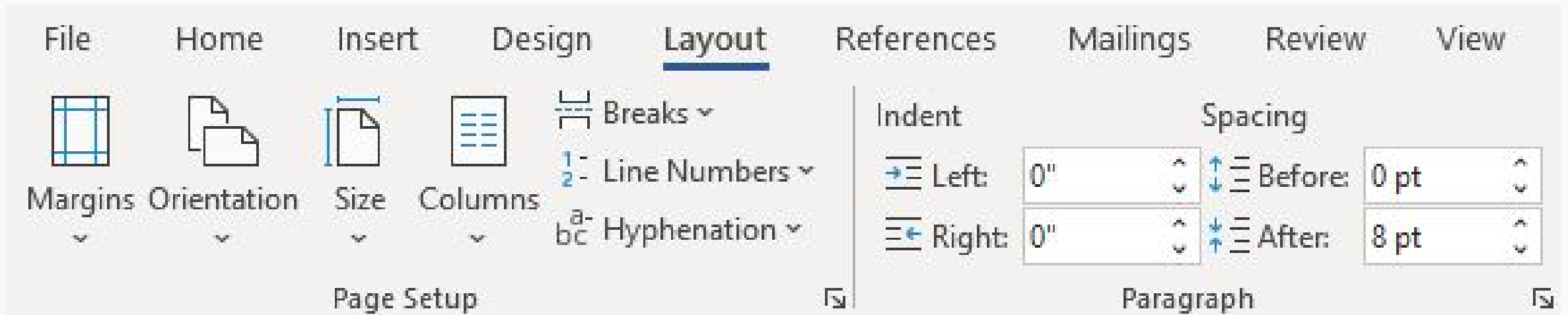
# Color Contrast

- Color contrast should reduce eye strain
- Use the free Colour Contrast Analyser from the [The Paciello Group](http://www.paciellogroup.org) ([www.paciellogroup.org](http://www.paciellogroup.org)).
- Do not rely on color coding alone to convey meaning.



# Accessible Spacing

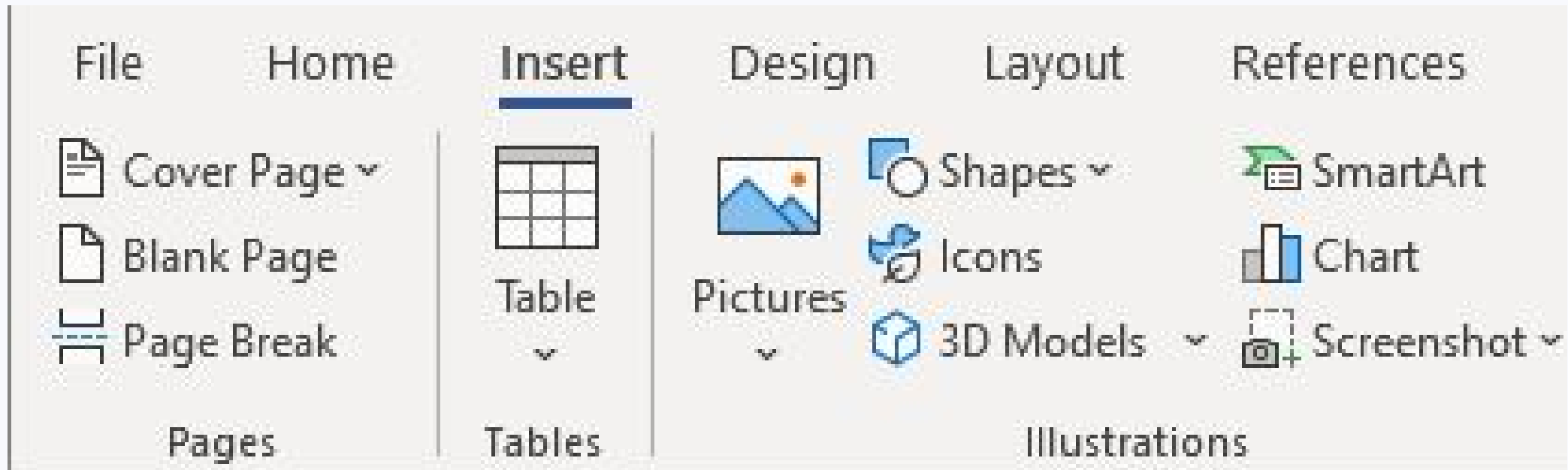
- Delete any repeated spaces, tabs, or hard line breaks and put your cursor before or after the word where you want white space.
- Then use the Paragraph Settings on the Layout Tab, add space before or after the line you have selected.
- You can also create section breaks or alter your margins on this tab to change the layout of your page as needed.





# Inserting Accessible Page Breaks

- Instead of hitting Enter multiple times and having the screen reader repeat the phrase “Blank Line,” try inserting a page break.
- Put your cursor after the last line on your page and go to the Insert Tab.
- Select Page Break to split content.



# Document Content and Organization

- Organize material with clear headings or bookmarks with a logical structure.
- Use headings to create an accessible table of contents if possible.
- Do not interrupt the main body text with images, footnotes, captions, or tables.
- Explain all acronyms, symbols, and abbreviations for your audience at the top of the page, not the bottom.
- Include captions for both images and tables that are accessible to everyone. This also allows for image description to be fairly brief.

# Accessible Tables

## Accessible Tables SHOULD

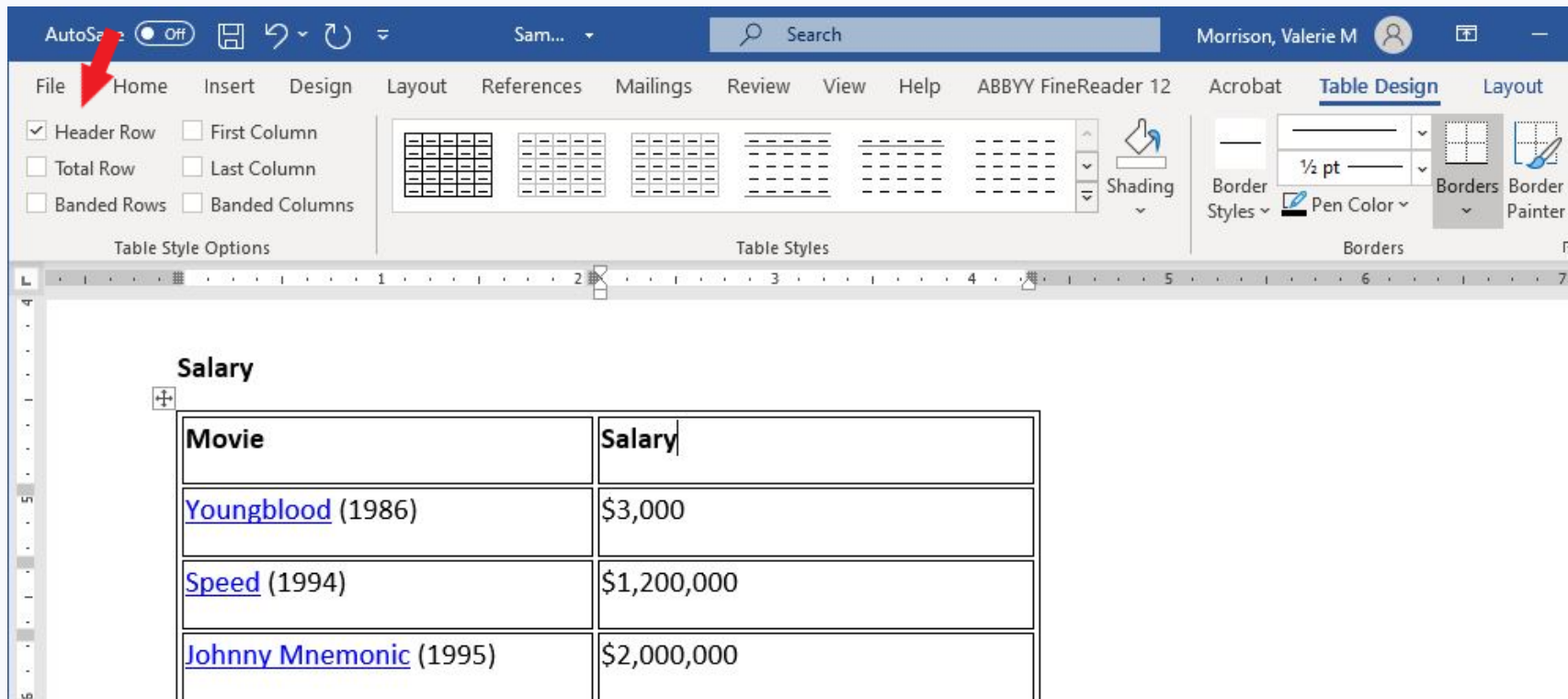
- Have a specified header row
- Have a logical reading order
- Contain related information
- Have a descriptive title
- Have a descriptive caption
- Contain equal numbers of cells in all rows and columns

## Accessible Tables SHOULD NOT

- Should not contain merged cells
- Should not contain empty cells
- Should not contain images

# Adding a Table Header Row

- All tables should have one header row.
- To specify the header row, select the table and click the Table Design Tab.
- Now check the box for Header Row.

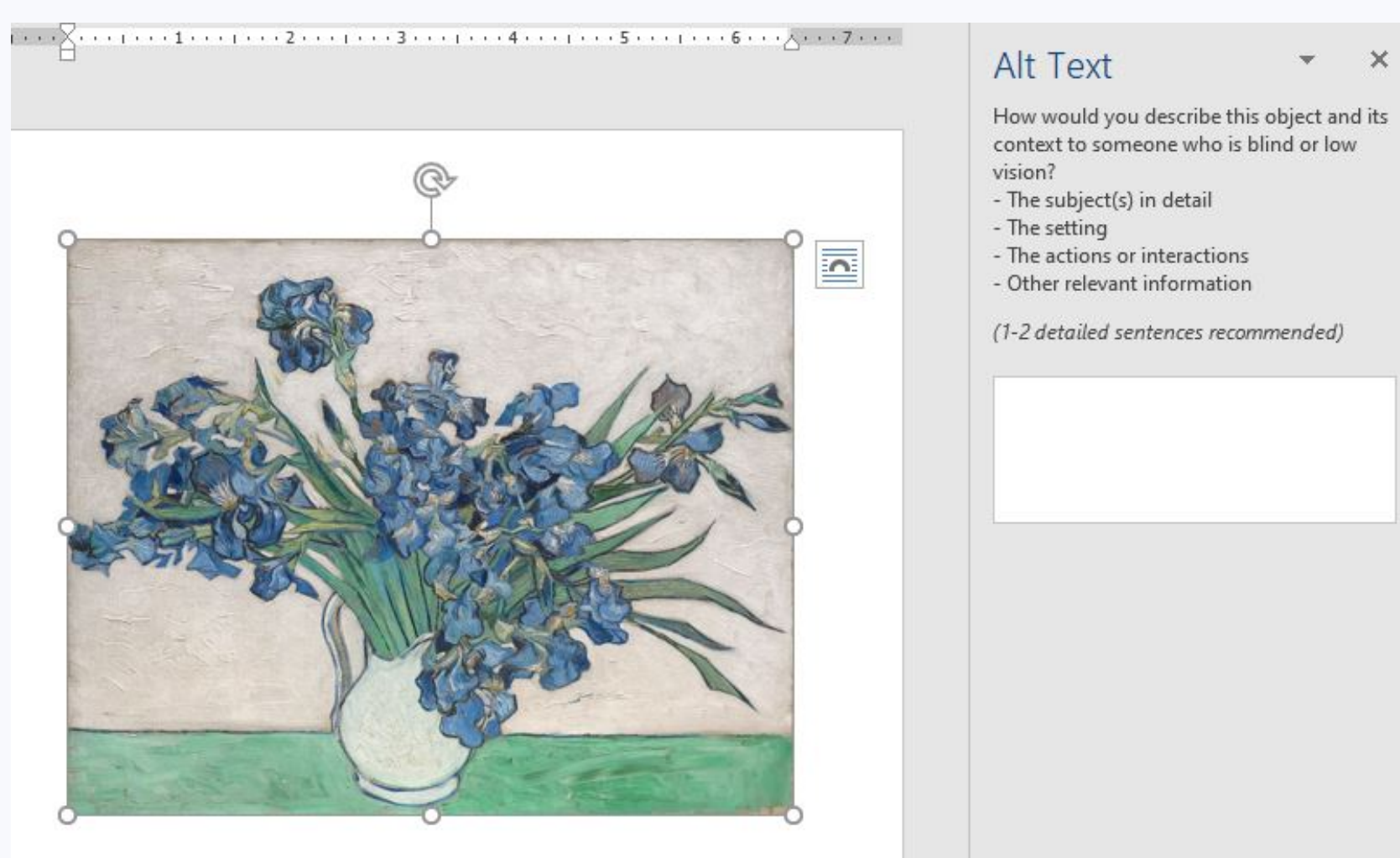


The screenshot shows the Microsoft Word interface with the Table Design tab selected. A red arrow points to the 'Header Row' checkbox, which is checked. Below the ribbon, a table titled 'Salary' is visible. The table has two columns: 'Movie' and 'Salary'. The first row is the header row, and the subsequent rows contain movie titles and their corresponding salaries.

Movie	Salary
<a href="#">Youngblood</a> (1986)	\$3,000
<a href="#">Speed</a> (1994)	\$1,200,000
<a href="#">Johnny Mnemonic</a> (1995)	\$2,000,000

# Image Description

# Adding Alt Text to a Microsoft Word File

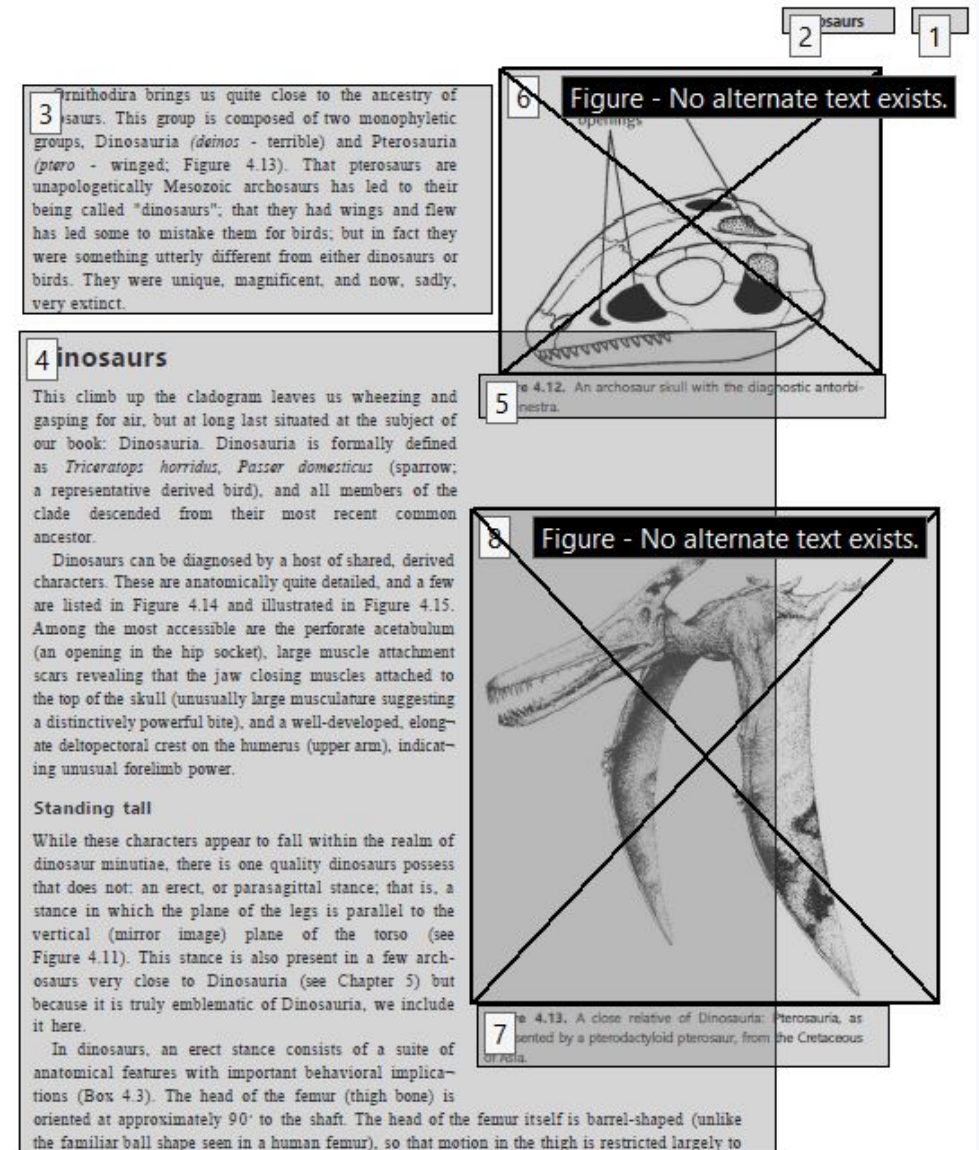


## To add alternative text:

- Right-click on the image and choose Edit Alt Text.
- If you do not see the Edit Alt Text option, select Picture and then click on the Alt Text tab.
- Type in the description field using proper grammar, spacing, and punctuation.
- Do not use hard line breaks to create separate paragraphs.

# Adding Alt Text to a PDF File

- If you need to add alt text to an image in Acrobat, first click on Tools, and select Accessibility.
- Select the Reading Order tool and scroll through your file looking for images. Right click to add alt text.
- Running the accessibility report will also flag these images and allow you to click on them and add alt text.





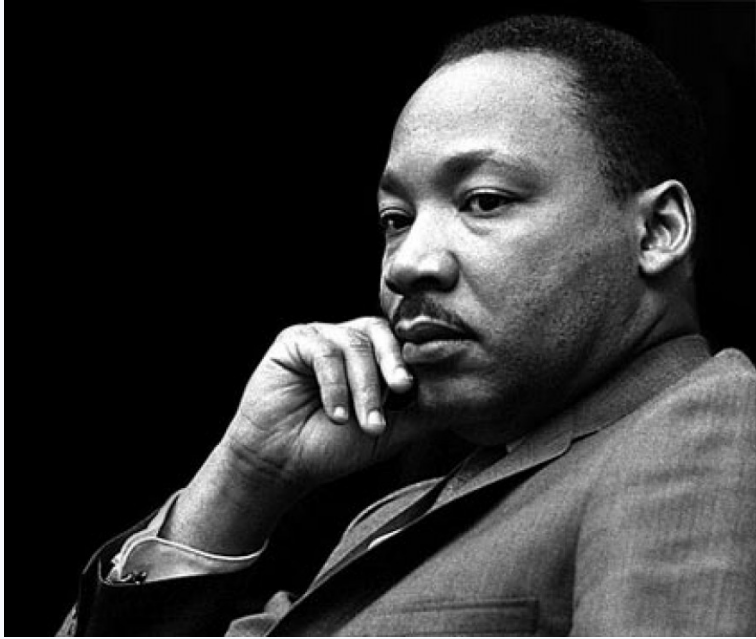
# How to Describe Images

- First summarize what you see in one general informative sentence.
- Keep your description neutral and informative.
- Use proper grammar, spelling and punctuation.
- Avoid acronyms and symbols.

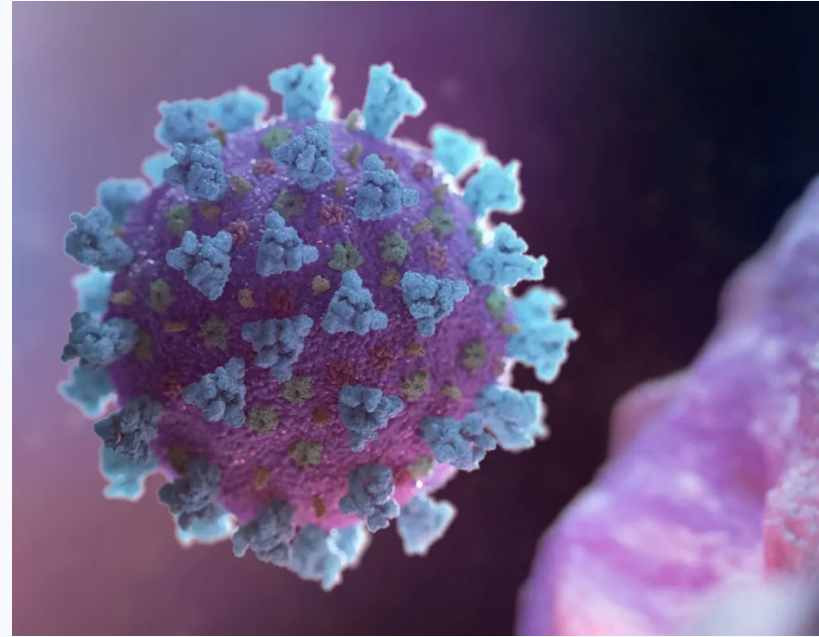




# Simple Images



Photographs of people  
just need a name:  
Martin Luther King, Jr.

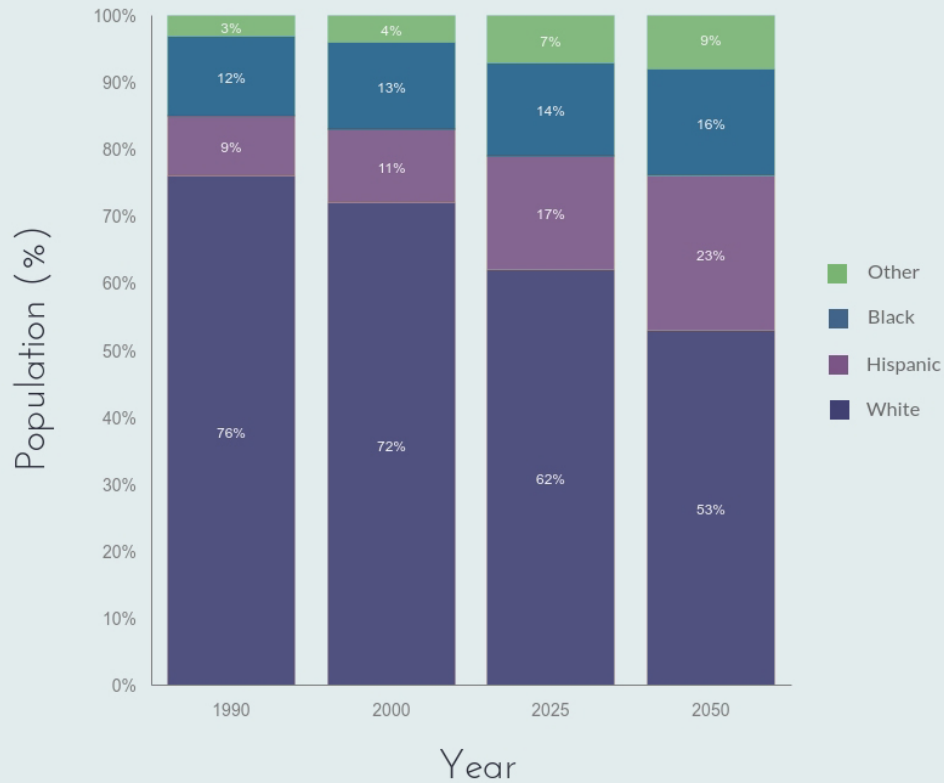


Simple graphics can often be described in one sentence:  
A magnified image of the human coronavirus.

Additional details about its spherical structure and the projecting glycoproteins could be added depending on your audience and context.

# Bar Graphs

## U.S. Population by Race



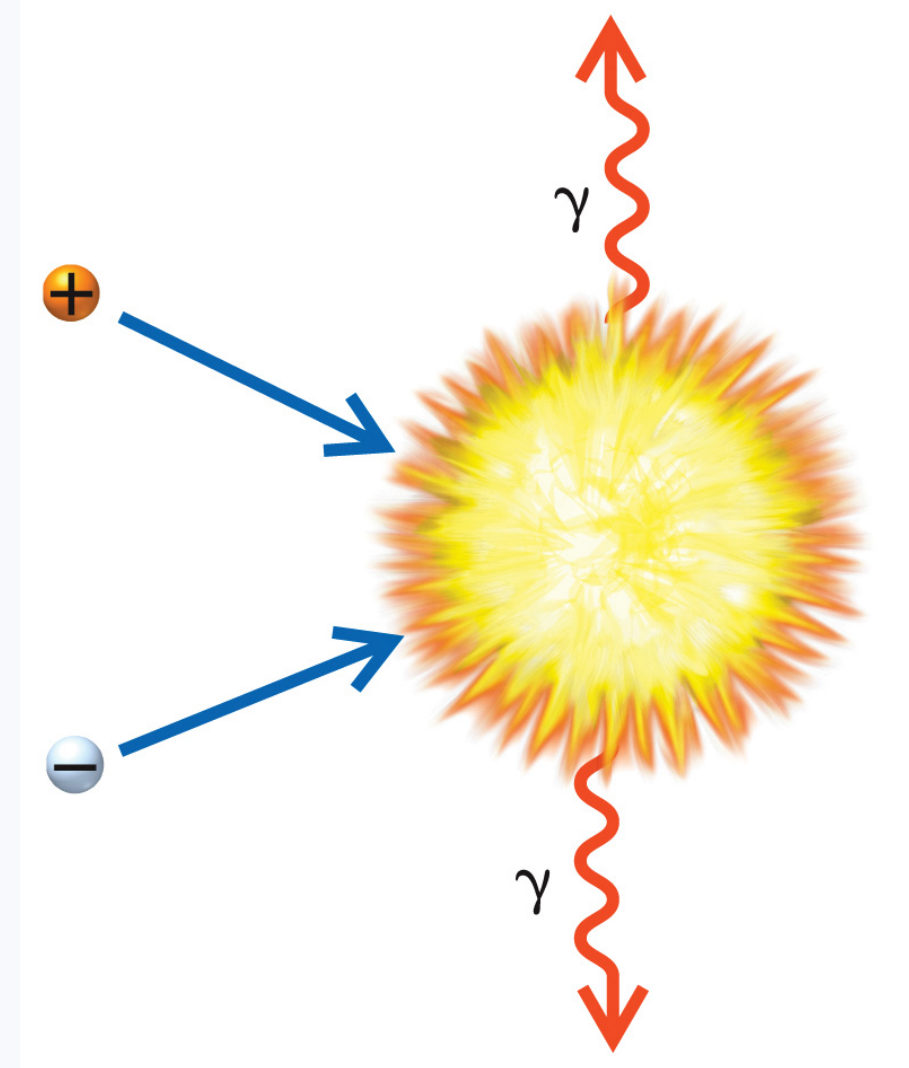
Source: <http://www.originlab.com/doc/Tutorials/StackColumn-Labels>

Work from general to specific. Begin by naming the type of graph and title. Then describe the horizontal and vertical axes if applicable. Finally, describe the data.

A bar graph titled U.S. Population by Race that compares the percentages of Black, Hispanic, White, and Other races in the United States for the years 1990, 2000, projected 2025, and projected 2050. In 1990, there were 76% White, 9% Hispanic, 12% Black, and 3% Other. In 2000, there were...

# Focus on Meaning

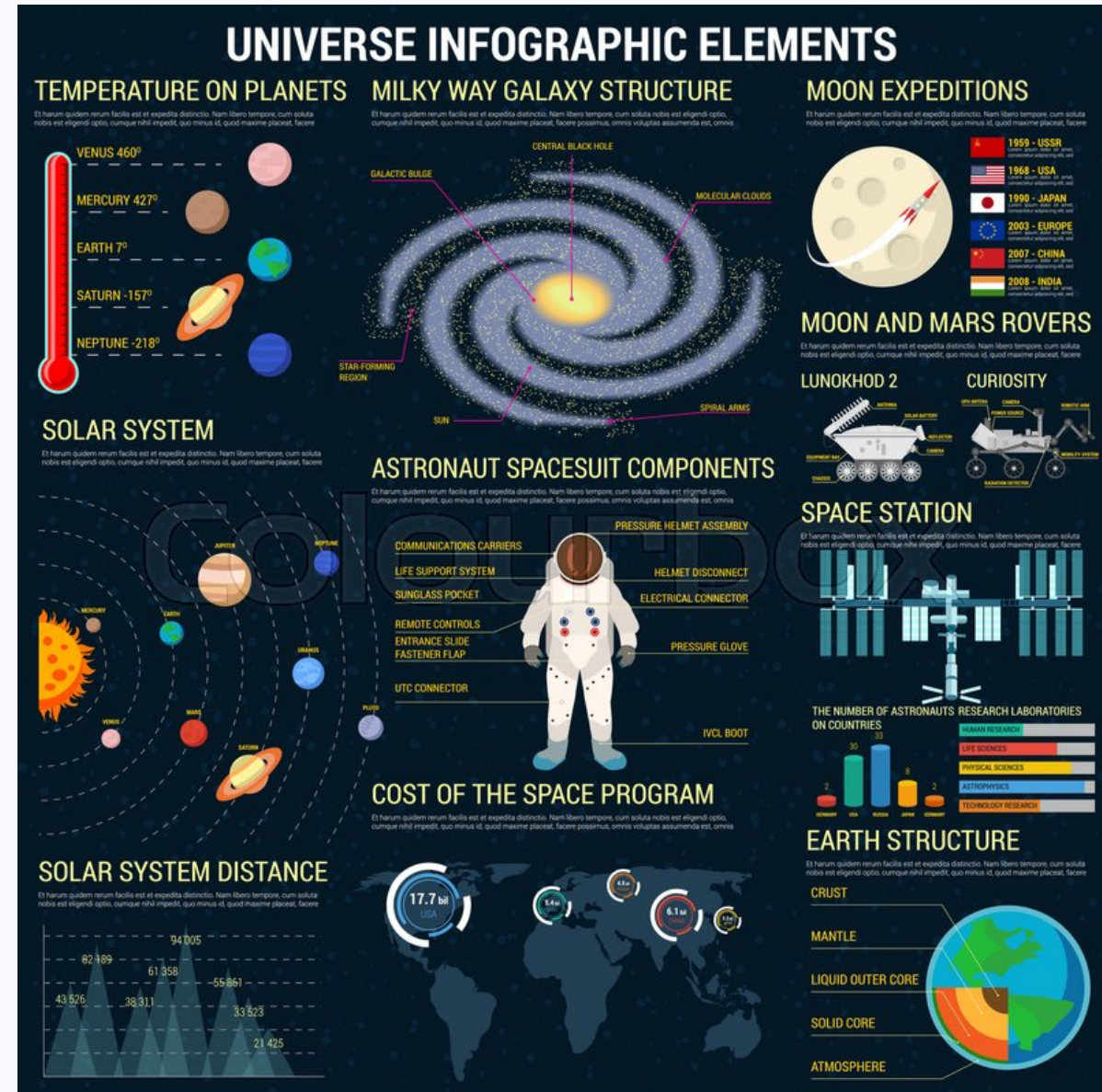
- Avoid the common mistake of spending your time describing the **appearance** of symbols rather than their **meaning**.
- Example: In this image, you would want to avoid describing “a ball labeled with a plus sign” and instead you should call it “a positron.” Avoid describing “a squiggly arrow labeled with a weird  $\gamma$ ” and instead call it “a gamma ray.”



# Consider Cognitive Load

Cognitive load, also referred to as Auditory Fatigue, is something to consider when describing images, so that you don't overwhelm the listener's working memory.

- Begin with the type of image.
- Follow up with a one sentence overview that provides a general summary of the content.
- Work from general to specific, filling in the details as needed.







# Questions and Answers

# Contact Us

Contact our Customer Support Team  
by phone (404) 894-7756 or by email  
[cidi-support@design.gatech.edu](mailto:cidi-support@design.gatech.edu)

CREATING THE NEXT®