# Accessibility and Preservation Best Practices When Creating Your Thesis or Dissertation

*A helpful guide from the Scholarly Communications Office*

## Formatting

Formatting requirements for your document are determined by your school. You can find more information about your school requirements by contacting your program representatives:

- College Honors Program: ec.honorsprogram@emory.edu
- Laney Graduate School: Renee Webb, renee.webb@emory.edu
- Rollins School of Public Health: Department ADAPS are listed on the Rollins' website
- Candler School of Theology: Shelly Hart, shart@emory.edu

## Accessibility

It's important to remember that the audience for your thesis or dissertation may include a wide range of individuals with diverse abilities, so making your document accessible is an important step when considering readership and long-term preservation. In accordance with Emory's efforts to make educational content available to everyone, we ask authors to follow best practices for accessibility in all content submitted to the Emory Thesis and Dissertation repository.

1. Headings: Use your authoring tool's built-in heading styles so that screen readers can make sense of your document's organization.
   a. Headings and subheadings should provide an outline of page content. Structuring your document using hierarchical headings will help readers understand how the content of the document is organized and allow them to easily navigate between sections.
      i. Most authoring tools have built-in heading styles available. Microsoft Word's heading styles can be modified so that they conform to your school's formatting requirements.
      ii. Some authoring tools allow you to turn headings into bookmarks for screen readers.
2. Lists
   a. When content can be described as a *list* of something, it should be created as such, using the bulleted or numbered list features that are provided by the authoring tool.
3. Tables
   a. Tables should be avoided if possible. Even well-formatted tables can be misinterpreted by screen-readers, and they are difficult for most screen-reading software to navigate.
      i. MS Word has limitations when it comes to making tables accessible.

ii. Complex tables can be made accessible within HTML or Acrobat Pro when creating a PDF with either of those authoring tools. The [MediaLab](#) in Woodruff Library and the [Computing Center at Cox Hall](#) provide access to computers with Acrobat Pro.

b. Tables should be used for presenting data only, not for layout. Tips for making tables more accessible:

    i. Column and row headers should be explicitly identified.

    ii. Ensure that "Header Row" and "First Column" are designated within the table properties.

    iii. Repeat column headings when a table spans multiple pages.

    iv. Avoid split/merged cells.

    v. Create a table caption to identify the table's purpose.

    vi. Use alt text in the table properties (see below for more information on alt text).

4. Alternative (Alt) Text

a. Users who are unable to view images depend on alt text, which is a machine-readable tag that describes an image in words. Alt text lives behind the image and does not interfere with how the image displays within the document. However, when being read online or via screen-reading software, the text is a functional stand-in for the image if it can't be viewed directly.

    i. Alt text should be succinct and just enough text to communicate the idea without burdening the user with unnecessary detail.

    ii. The recommended number of characters for alt text is 125 characters or less.

b. Whenever possible, use text rather than images.

c. Complex images, such as graphs, charts, or diagrams, may contain too much information to be effectively described using alt text. Detailed descriptions of these images should be provided elsewhere.

    i. You can use alt text to point the reader to the location of further descriptions of the image.

d. Most authoring tools provide a means of adding and editing an image's alt text.

5. Tab and Read Order

a. For most documents, screen readers read from left to right, top to bottom. Screen readers may not pick up on column breaks or other stylistic formatting. Please keep this in mind when organizing page layouts.

6. Color Contrast

a. Text and icons should have sufficient contrast between foreground and background colors.

b. Do not rely on color as the only means of conveying meaning.

    i. Consider whether a reader with color vision deficiencies or using a screen reader would still be able to understand the meaning conveyed.

    ii. Consider adding cues that include text, alt text, or patterns.

7. Hyperlinks
    a. Identify links with text describing the link destination rather than "click here" or the like.
8. How to check your document for accessibility
    a. Using MS Word tool's Accessibility Checker
        i. Windows: File > Check for Issues > Check Accessibility
        ii. Mac: Review > Check Accessibility
    b. See Additional Resources below for online accessibility checkers

## Preservation

Saving your document in the proper format is important for long-term preservation in an online repository. Some file types have a longer lifespan than others, especially as software is continuing to evolve.

- PDF from Word
    o The goal is to export to PDF in a way that preserves the document structure of the Word doc, including heading levels, alt text, and markup that explicitly identifies lists, tables, and other content that is important for accessibility.
    o Do not Print to PDF.
    o Select "Save As" and choose the format that is "best for electronic distribution and accessibility".
- Creating a document via Acrobat
    o Make sure that "Enable Accessibility and Reflow with tagged Adobe PDF" is checked.
- Supplementary Materials preferred file formats
    o Text or word processing applications: PDF/UA, PDF/A, or PDF
    o Spreadsheet applications or structured data: CSV, TSV, or original format of data file(s) such as Microsoft Excel
    o Presentations/slide decks: PDF/UA, PDF/A, or PDF
    o Images: TIFF, JPG, JP2, EPS, SVG, PDF, PNG
    o Graphics: TIFF or PDF
    o Video: MOV, AVI, MP4, or MKV
        ▪ Please note that only the file format MOV will play within the repository. All other formats will need to be downloaded prior to playback.
    o Audio: WAV or MP3
    o Websites and social media records: WARC or ZIP
    o Database Management Systems (DBMS): Keep original or XML with schema

## Additional Resources

Web Accessibility Initiative: https://www.w3.org/WAI/
Accessibility Works Testing and Auditing: https://www.accessibility.works
Web Accessibility Evaluation Tool WAVE: https://wave.webaim.org/