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Data Sharing and Virtual Resources, Can a Web Accessibility Checklist Be Helpful?

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What is a Disability?

- According to the Center for Disease Control (CDC), "is any condition of the body or mind (impairment) that makes it more difficult for the person with the condition to do certain activities (activity limitation) and interact with the world around them (participation restrictions)."
 - Can affect a person's:
 - Vision
 - Movement
 - Cognitive Processing
 - Learning

Center for Disease Control and Prevention. (2020). Disability and health overview. https://www.cdc.gov/ncbddd/disabilityandhealth/disability

The World Health Organization (December 2022) estimates that "1.3 billion people – or 1 in 6 people worldwide – experience significant disability."



United States: Section 508 of the Rehabilitation Act of 1973

- Objective: To set standards that places requirements to ensure electronic and information technology maintain compatibility with assistive technology used by individuals with physical, sensory, and cognitive disabilities.
- Section 508 was added to the Rehabilitation Act in 1998, which required "Federal agencies to make their electronic and information technology (EIT) accessible to people with disabilities"
- In 2017, Section 508 was revised to state: "Electronic content shall conform to Level A and Level AA Success Criteria and Conformance Requirements in WCAG 2.0."



The W3C and the WCAG



- World Wide Web Consortium (W3C) is an international community of developers, who developed open standards that are designed to ensure accessibility in the long term grown of the web
- W3C is organized to have seven elected members act as the Board of Directors, the governing body of the non-profit organization
- In 1999 the Web Content Accessibility Guideline (WCAG) 1.0 was recommended and with the goal to promote accessibility in the web content
- In 2008 the W3C recommended the WCAG 2.0 Guidelines and then in 2018 they recommended the 2.1 guidelines, which just extends what is stated in 2.0 guidelines



Current WCAG 2.1 Guidelines

- Designed around four principles:
 - Perceivable: Presented in ways a users can understand and comprehend
 - Operable: Components and navigation can be used by all users
 - Understandable: All users can understand the information
 - Robust: Can be interpreted by variety of user agents
- Uses three different success criteria levels: A (lowest), AA, and AAA (highest)



How Can Non-Web Designers Help?

- Perceivable: Presented in ways a users can understand or understand
 - Text Alternatives (Alt Text), Time-based Media (captions), Adaptability (present information in alternative method)
- Operable: Components and navigation can be used by all users
 - Enough Time (timing on moving images), Seizures and Physical Reactions (no flashing more than 3 times in 1 second), Navigable (headings, link purpose, titles)
- Understandable: All users can understand the information
 - Readable (can all users understand information), Consistent Navigation (organized content)

Perceivable Section

Present information in ways a users can understand and comprehend.

Display: Font and Pictures

- Font should be in a readable font type (Guideline 3.1) and at the correct reading level (Guideline 3.1.5, Level AAA)
- Contrast (Guideline 1.4.3, Level AA) text and images of text has contrast ratio of at least 4.5:1

- Operable: Pause, Stop, Hide (Guideline 2.2.2, Level A) and usability studies, limit the amount of movement of text and decorative images.
 - If it starts automatically, last more than five seconds, provide an option to pause, stop, or hide



Display: Font and Pictures

- Attempt to avoid unusual jargon (Guideline 3.1.3 Unusual Words, Level AAA)
- Abbreviations (Guideline 3.1.4, Level AAA): Example: Interlibrary Loan, or ILL
 - Since ILL is so frequently used with patrons, clearly introduce Interlibrary Loan as ILL in each new box, image description. The constant introduction of Interlibrary Loan is called ILL is incase a screen reader skips over the first introduction.
- For images that present information, they can be considered as complex images which needs the correct text alternatives.



Text Alternative (Alt Text)

- Is an alternate route that screen readers use to describe an provided image (Guideline 1.1.1, Level A)
- For images that presents more complex information a user, a creator needs to be able to describe that image and all needed details in text
- For the more decoration or images that do not present information no need to add alt text
- One of the best resources is the <u>W3C: An alt Decision Tree</u>, a Yes or No tree written for the general public



W3C: An alt Decision Tree

Design & Develop Tips for Writing Tips for Designing **Tips for Developing** Audio & Video Media **Tutorials** Page Structure Menus **Images Informative Images Decorative Images**

An alt Decision Tree

in <u>Images Tutorial</u>

Overview

This decision tree describes how to use the alt attribute of the element in various situations. For some types of images, there are alternative approaches, such as using CSS background images for decorative images or web fonts instead of images of text.

Does the image contain text?

No:

Continue.

Yes:

- ... and the text is also present as real text nearby.
 Use an empty alt attribute. See <u>Decorative Images</u>.
- ... and the text is only shown for visual effects.

Use an empty alt attribute. See <u>Decorative Images</u>.

• ... and the text has a specific function, for example is an icon.

Reflective Question: Book Covers

An alt Decision Tree

in **Images Tutorial**

Overview

"and the text is also present as real text nearby" refers to text that immediately near the image This decision tree describes he images, there are alternative approaches, such as using compacting from the images for decorati

Does the image contain text?

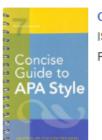
instead of images of text.

No:

Continue.

- ... and the text is also present as real text nearby.
 - Use an empty alt attribute. See <u>Decorative Images</u>.
- and the text is only shown for visual effects. Use an empty alt attribute. See <u>Decorative Images</u>.
- ... and the text has a specific function, for example is an

Book covers can be considered as an complex image because it presents what the book cover looks like, but some program list the citation information after the image as real text. Does it need alt text?



Concise Guide to APA Style by American Psychological Association Staff (1)

ISBN: 9781433832734 Publication Date: 2019



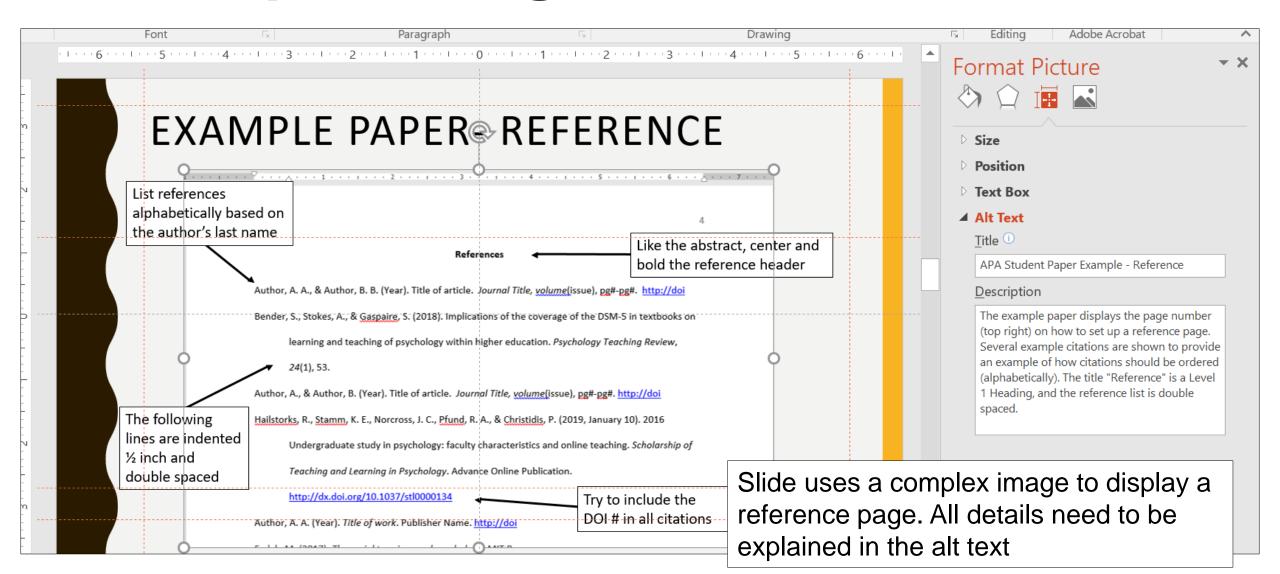
Publication Manual of the American Psychological Association by American

Psychological Association (1)

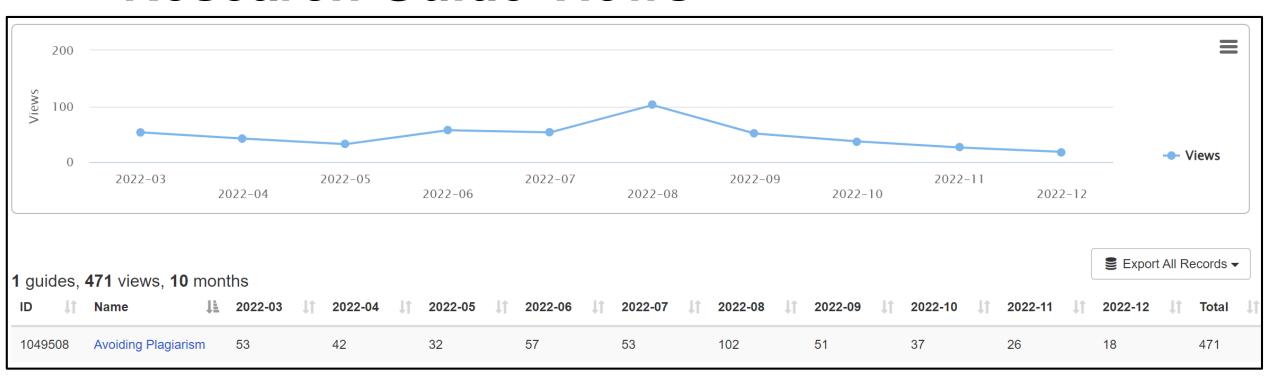
ISBN: 9781433832161 Publication Date: 2019

World Wide Web Consortium. (2018). W3C an alt decision tree. https://www.w3.org/WAI/tutorials/images/decision-tree/

Complex Image: Intro APA Citation



Complex Image: Alt Text for Graph on Research Guide Views

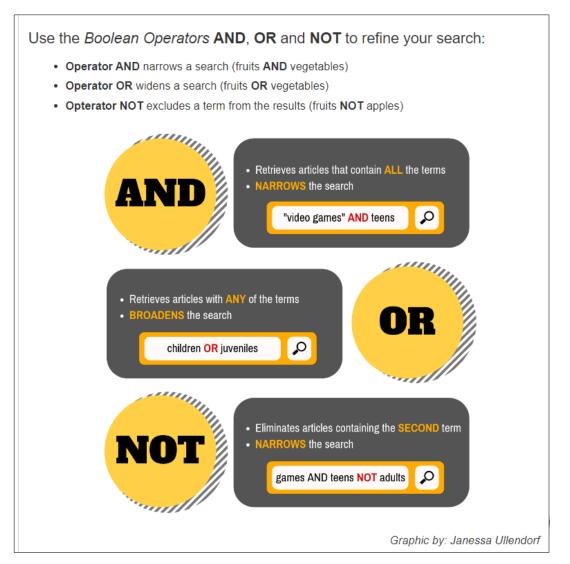


The line graph displays the number of usage views based on a monthly timeframe. The data begins with 53 view for March 2022, April had 42 view, May had 32 views, June increased to 57 views, July had 53, August had a drastic increase to 102 views, September decreased to 51 views, October had 37 views, November had 26, and finally December 2022 had 18 views. In a 10 month timeframe, the research guide received 471 views



Example: Infographics

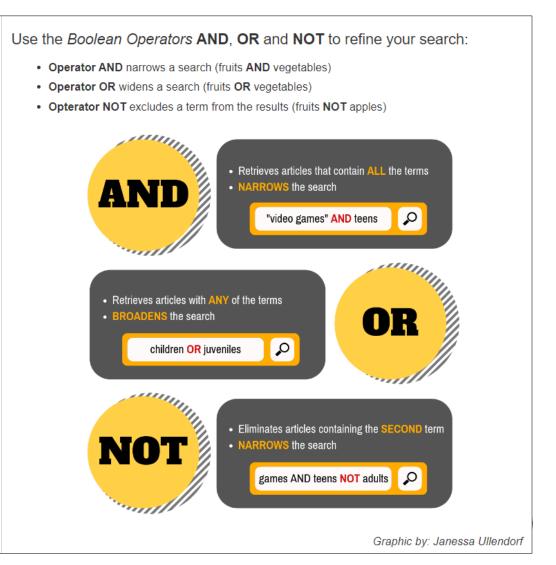
- An image can replace several sections of text a user would need to read
- Presenting image and text does provide some adaptability (Guideline 1.3) because information is presented in different options
- Infographic meets needed color contrast (Guideline 1.4.1, Level AA)
- This infographic is a complex image because it does present new information that is not stated in the text



Example: Alt text of Infographic

• Alt text for the Boolean Operator Infographic:

Infographic of three Boolean operators: and, or, and not in yellow circles with gray lines. Next to operator And yellow circle and is a gray box with two bullets explaining how it refines the search it retrieves articles that contain the terms and narrows the search, with an example "video games" AND "teens" in a search window. There is a gray box next to the operator "or" with an explanation of how it helps refine the search it retrieves articles with ANY of the terms and broadens the search, and example "children OR juveniles" in a search window. And next to the not operator yellow circle is a gray box with two bullets explaining how it refines the search it eliminates articles containing the second term and narrows the search, and "games" AND teens NOT adults" in the search window.



Operable Section

Components and navigation can be used by all users.

Headers and Labels

- Success Criterion 2.4.6, Level AA
 - "Headings and labels describe topic or purpose."
- Similar to headings in papers, accessibility headers help separate sections or topics
- If using several heading levels, they always need to follow a numerical order,
- It also provides screen readers the option to skip from one header to the next, letting a person skim through a text heavy webpage
- In SpringShare LibGuide program, since no header levels can be added to book alt text, the screen reader will read the entire description, no option to skip to a certain point



Heading – Organizing Information

Finding Journals by Title

To search for journals by title, use either the Journal Search tool or the Advanced Search tool. The results will be the same.

Journal Search

- To organize by discussion
- 2. Ty topic, added a Heading 3

 Expert up. 10 yet more precise results, enclose the title in quotation marks.
- 3. Click the search button.

Advanced Search

- 1. In [Catalog Title], go to Advanced Search.
- 2. Open the Any field menu and select Title.
- 3. Type the title of the journal, magazine, or newspaper.
 - Expert tip: To get more precise results, enclose the title in quotation
- 4. Open the Resource Type menu
- 5. Click the Search button

Included a sub-topic on journal searching, added a Heading 4

Results

If a matching title is found, the search results will indicate at a glance if the title is available in print, online, or both. Click the title for more information about all formats.

Finding Journals Content Box Title (Heading 2)

To search for journals by title, use either the Journal Search option or the Advanced Search option. The results will be the same.

Using the Journal Search Option {Heading 3}

- 1. In [Catalog Title], select the Journal Search option in the top navigation menu.
- 2. Type in the title of a journal, magazine, or newspaper.
- 3. Click on the magnifying glass icon or press enter to begin the search.

Librarian Tip: {Heading 4}

- To get more precise results, enclose the title in quotation marks (Example: "Journal Title").
 - he Advanced Search Option {Heading 3}

[Catalog Title], next to the search bar select the Advanced Search option. en the **Any field** list and select **Title**.

- 3. Type in the title of the journal, magazine, or newspaper.
- 4. Open the **Resource Type** list and select **Journals.**
- 5. Click on the magnifying glass icon to begin the search.





Link Purpose: Guidelines 2.4.4 and 2.4.9

- Link Purpose (In Context): The purpose of each link can be determined from the link text alone (Guideline 2.4.4, Level A)
- Link Purpose (Link Only): Is created to help users understand the purpose of each link to help decide if they should follow it (Guideline 2.4.9, Level AAA)
- Any boxes with content needs to also provide a clear title that describes the contents (Guideline 2.4.6, Level AA)
- Usability Studies state it is time to avoid using the "click here" and show the web address, instead have the web address as a hyperlink within the sentence.



Link Purpose (Link Only)

 Providing a description of the link's destination is helpful since it provides a preview of what information that website contains. This also explains why you are providing the link and if it is necessary to visit the linked website.

Websites

- The Annie E. Casey Foundation
- Caplan Foundation for Early Childhood
- Kaiser Permanente
- National Science Foundation
- The NEA Foundation
- The Robertson Foundation
- Spencer Foundation
- W. M. Keck Foundation

Grant Foundations

General Grant Foundations

- The Annie E. Casey Foundation: Grant Information
 - The foundation focuses on ensuring kids have strong, supportive families; increasing economic opportunity, and improving lives of young people.
- · Caplan Foundation for Early Childhood
 - The Caplan Foundation for Early Childhood is an incubator of promising research and development projects that appear likely to improve the welfare of young children, from infancy through 7 years, in the United States.
- Kaiser Permanente Communities We Serve
 - Each community has its own grant webpage. First, select a community and then look in the "In the Section" box for the grant link to view the available grants.
- · National Science Foundation (NSF) Funding

The foundation provides funding to various research areas. This webpage provides several methods to search for possible grants.

Understandable Section

All users can understand the information

Users can understand the information

Finding Journals by Title

To search for journals by title, use either the Journal Search tool or the Advanced

Search tool. The results will be the sa

Journal Search

Finding Journals Content Box Title {Heading 2}

To search for journals by title, use either the Journal Search option or the Advanced

Directions need to be updated to provide a more detailed description of the search screen

- 1. In [Catalog Title], click Journal Search in the top navigation menu.
- $2. \ \ Type$ the title of the journal, magazine, or newspaper.

Expert tip: To get more precise results, enclose the title in quotation marks.

3. Click the search button.

Advanced Search

- 1. In [Catalog Title], go to Advanced Search.
- 2. Open the Any field menu and select Title.
- 3. Type the title of the journal, magazine, or newspaper.

 Expert tip: To get more precise results, enclose the title in quotation marks.
- 4. Open the Resource Type menu and select Journals.
- 5. Click the Search button.

Results

If a matching title is found, the search results will indicate at a glance if the title is available in print, online, or both. Click the title for more information about all formats.

1. In [Catalog Title], select the Journal Search option in the top navigation menu.

Heading 3

- 2. Type in the title of a journal, magazine, or newspaper.
- Click on the magnifying glass icon or press enter to begin the search.

Libraria Tip: {Heading 4}

 To get hore precise results, enclose the title in quotation marks (Example: "Journal Title").

Using the Advanced Search Option (Heading 3)

- 1. In [Catalog Title], next to the search bar select the Advanced Search option.
- 2. Open the Any field list and select Title.
- 3. Type in the title of the journal, magazine, or newspaper.
- 4. Open the **Resource Type** list and select **Journals.**
- 5. Click on the magnifying glass icon to begin the search.

Librarian Tip: {Heading 4}





Ols There Help?

Personal Recommendation: The Content Strategy and Accessibility Checklist

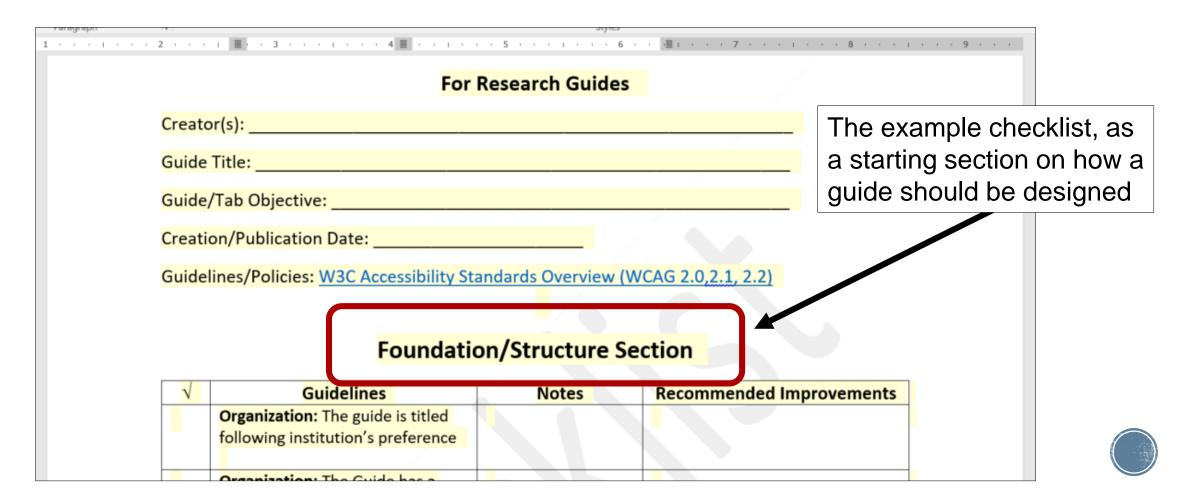
Content Strategy

- "Curate an entertaining, online reference guide that helps stressed out law students become successful practicing attorneys" (p. 101). Once a statement has been defined, Halvorson and Rach recommend creating a plan that includes guidelines in six areas:
 - Audience: Who specifically will be reading the content? If there is more than one audience, they should be ranked.
 - Messaging: What ideas should be prioritized in the content? These are the key takeaways
 that authors hope the website's users will remember after leaving the site.
 - Topics: What information is most important to the audience and therefore should be included in the content?
 - **Purpose**: Is the content meant to persuade, inform, validate, instruct, or entertain readers?
 - Voice and tone: How is the content's writing style appropriate for both the website's brand and the audience's values?
 - **Sources**: Where does the content come from? It will be either original, co-created with another entity, generated by users, or aggregated, curated or licensed from other sources."

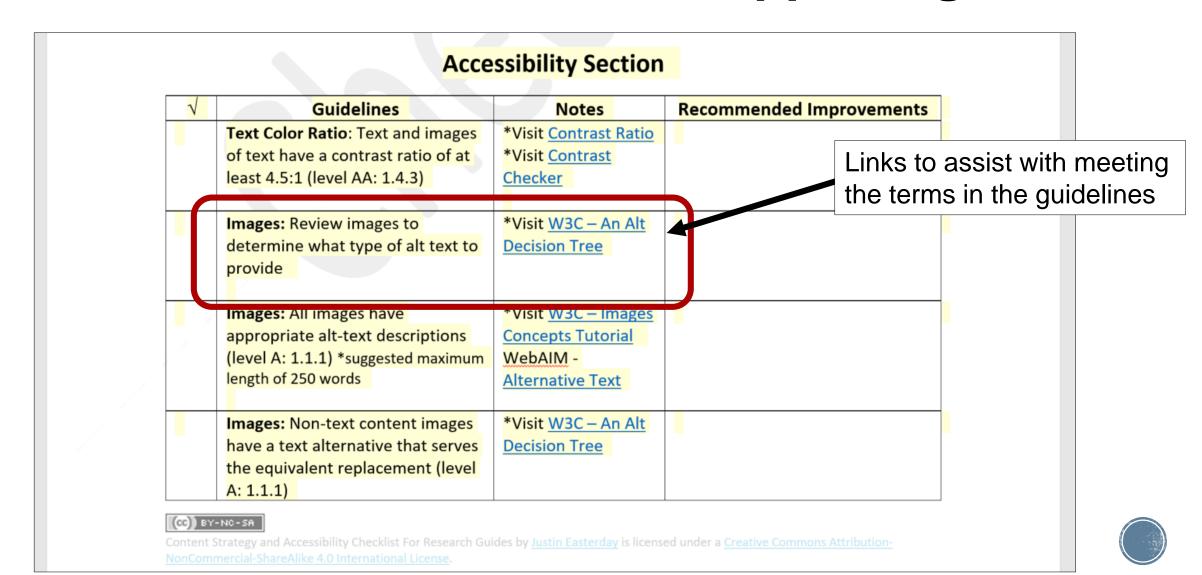


Supporting Documents: Checklist

 With a set Content Strategy, supporting documents can be created to help ensure all guidelines are being met.



Can State Guidelines and Supporting Tools





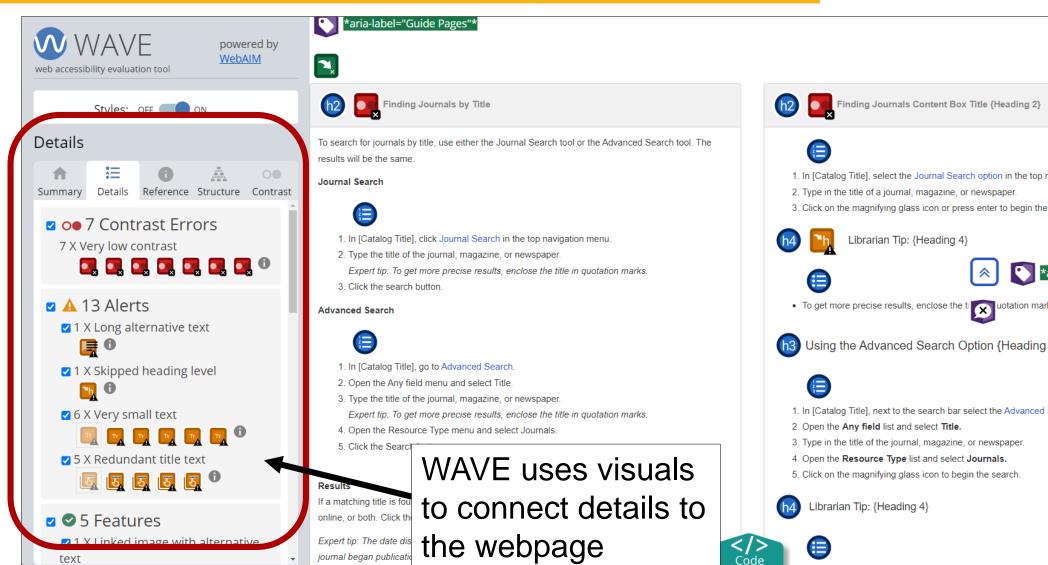
Web Accessibility Evaluation Tool

WAVE: Web Accessibility Evaluation Tool

- Created by WebAIM: Web Accessibility in Mind
- Follows the WCAG 2.1 Guidelines
- The tool does provide more information, which means some sections can be ignored because you may not be able to control
- Some areas that the report highlights:
 - Any possible issues (does include some web developer areas)
 - Color Contrast Errors
 - Alerts dealing with alt text, if small text, redundant title text
 - Linked images that have alt text
 - Structural Elements: Headings, Order list, Navigation points
 - ARIA (website landmarks, web developer area)



WebAIM: WAVE Help Tutorial



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