Web Accessibility Guidelines & Best Practices for the CC Website

Introduction

This document details best practices and guidelines for web authors to use and consider when creating and editing web content, **including PDF documents**. These guidelines will change as technology and industry standards change, so check back on this document for the latest version. These guidelines and best practices ensure that the CC site is aligned with [ADA regulations](#). Accessibility is a core aspect in Colorado College's ADEI commitment by removing as many barriers as we can for people with disabilities. Access to web content can be a major obstacle for some people with disabilities, and we hope to reduce that obstacle as our lives become increasingly dependent on the web.

Understandably, some of these guidelines might not make much sense to those of us who don't know how computer systems work. For example, some people who are blind or have low vision use screen reading software to access web content. These software programs don't read webpages the same way sighted people do. What sighted people read as bigger text, bold text, small text, etc., have very specific code, attributes, and tags that they don't see on the webpage but are necessary for content to show up correctly. Screen readers read all the code that sighted users don't see. Improperly formatted content translates to miscommunication or even total lack of communication about certain information.

Most of these best practices do not require web authors to know anything about HTML and CSS coding nor do they take too much time (unless they're done as an afterthought which is something we want to avoid). Please take the bit of extra effort to think about how your webpages are organized for the benefit of all users.

We do not expect web authors to be experts at web accessibility. If you're ever unsure about the accessibility of your web content, the web team is only an email or call away:

> Mark Lee (Director of Web and Digital Media): mlee@coloradocollege.edu, x6030
> Karen To (Director of Web and Digital Media): kto@coloradocollege.edu, x6144
> Nicole Leung (paraprofessional): nleung@coloradocollege.edu, x6139

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HEADINGS

What's a heading? Headings are used to chunk out content on a page. Headings chunk out your content making it easier for everyone to read, but they are especially important for navigating with a screen reader. Note that different text-based programs will have their own variations for headings. The section headers in this document are Header 1, below are headers 2-6 as defined by Microsoft Word 2022:

Heading 2
Heading 3
Heading 4
Heading 5
Heading 6

It's important to use **properly formatted** headings to structure your web page. It is not useful to screen readers, web browsers, and other assistive digital tools to only make text you want to use as headings formatted like headings; they must also be **designated** as headings. The WYSIWYG tool bar in Cascade CMS allows you to designate certain text as headings. Headings should be used in the correct order, meaning you shouldn't skip levels or use them inconsistently. **Do not** use the heading formats in Cascade to make regular paragraph text larger. This doesn't help users as there's very little distinction between your content. This will also cause problems on smaller screen sizes for tablet and smartphones as these users will be stuck in scrolling purgatory trying to get through an unnecessarily long page due to all the text being excessively large. Lastly, this causes problems for anyone using a screen reader as this text is coded as a heading as opposed to paragraph text.

In Cascade CMS, the Header field acts as your main content divider for your webpages (this is the yellow-striped, all-caps heading). You have one header per content container. Within each content container you have your headings 1-6 to further divide your content if necessary. For most webpages, you will not need to go through the entire heading hierarchy. In Cascade CMS, the Heading field in your content containers basically serves as your H1. Refer to this [video on how screen readers help users navigate through headers and links](#).

On a typical CC webpage, your hierarchy will be:

1. Site name (i.e., Sustainability)
2. Page name (i.e., Campus Sustainability Council)
3. Section header(s) (i.e., Main Goals, Our Findings: What's Next?)
4. Section content subheaders (i.e., Park Your Bike on Campus, CCE Bicycles)
5. Regular paragraph content (i.e., "In 2018, Colorado College partnered with Pike Ride…")

Cascade CMS also provides other ways to divide up content beyond headings such as card decks. It is still important to use headings within card decks if there's significant text.

Reminder: *While descending in heading levels, DO NOT skip a level or use them inappropriately within paragraphs.*

Headings should not be used as a way of making a page more visually pleasing or for emphasis. Use bold or italics for emphasis and let the template and the cascading stylesheet take care of the page design. The CC site already has a built-in stylesheet that all webpages use. Again, **do not use headings to make regular paragraph text bigger**. The text will adjust to the user's screen size. Just because the text might look small on your office desktop doesn't mean it will look small to someone using a tablet or smartphone. Assistive options are standard with most smart devices and desktop programs, so do not force text size beyond what is already established in Cascade for the CC site.

IMAGE ALT TEXT & CAPTIONS

IT IS IMPERATIVE TO ADD SOME KIND OF IMAGE DESCRIPTION TO YOUR IMAGES. These descriptions will help search engines and web browsers make sense of the image, especially if an image doesn't load correctly. They are also what screen readers use to describe the image to someone with vision impairments. This process should also make you consider if these images add any significance to your web content.

For the following options, they will all reference the image below:

OPTION 1: ALT TEXT DESCRIPTIONS - ATTRIBUTES

In computer lingo, "alt text" refers to the text describing an image that's in the code. This means that this descriptive text does not show up on the webpage unless there's an error that prevents the image from loading. You usually see this as a little image icon that's crossed out followed by the alt text. The alt text is also what screen readers use to describe an image to users with visual impairments.

In Cascade CMS, the alt text field is filled in with the "Image Description" field. It must be filled out with an adequate description. Cascade will sometimes autofill this field with the image file

name; DO NOT use this text as it rarely describes the image sufficiently to a person with a visual impairment. Alt text also helps with SEO (search engine optimalization).

There is a checkbox under the "Image Description" field for decorative images. You will likely never check this box as "decorative image" is defined for a very specific type of image rarely used on the CC website. In web accessibility, "decorative image" refers to images that have no significant value to the rest of the content and only is on the page to make it look pretty. For example, an image that is a fancy line and used to separate two paragraphs is considered a decorative image since there is little content value. However, these kinds of images are rarely used in web design as these web design elements are programmed within the site's stylesheet.

A good alt text/image description for example: "Museum Practicum students and Rebecca Tucker work on a model version of their upcoming exhibit 'Reframing Birds of America: Conversations on Audubon' for the FAC." This example provides to a visually impaired person both the basic structure of the image elements and the contextual significance of this image to enhance the story.

A bad alt text/image description example: "Three people looking over a small version of a building." This example does not tell a visually impaired person the importance of the image as it relates to the rest of the story. While this alt text tells a visually impaired person the basic structure of the elements of the image, it doesn't give the person the same opportunity as someone without visual impairments to get that same story enrichment from the image.

Of course, not all images will be this significant and necessitate this level of alt text. Many images on the CC website are headshots or landscapes. In these cases, a simpler alt text, such as "Headshot of Rebecca Tucker" or "Fine Arts Center façade during a spring day" would suffice. Avoid detailing irrelevant things such as the number of windows on the building or describing a person's haircut unless these things are important to the web page's content.

OPTION 2: CAPTIONS
Your caption must be associated with the image in the code. This means that you cannot just put the caption as a header or paragraph text somewhere around the image. CC's Cascade CMS setup provides caption fields that does this association for you (image gallery and tables). Caption texts are typically below the image with their own styling to differentiate them from the surrounding text. They can also include photo/image credits. Captions differ from alt text in two ways: 1) captions show up on the webpage, and 2) captions go beyond simply describing the image to include other contextual information.

The Image Gallery content type has caption fields for each individual image. Every caption field should be filled out specific to the image, if possible. It is also acceptable to use the same caption for multiple similar images if the caption still captures the important aspects portrayed by each image. A good use case would be if you had different angles of the same event/instance.

A good caption example: *"CC students are engaged with Professor Rebecca Tucker in the Museum Practicum course to learn about their individual roles in the process – from exhibition planning, selecting works from the permanent collection (this one focuses on John James Audubon), installation, content development, etc. Photo by Lonnie Timmons III."* This caption describes the image AND provides significant contextual information is not obvious from viewing the image.

A bad caption example: *"Two students and Rebecca Tucker looking at a museum model."* This example does not tell a web user using a screen reader the significance of the image nor its context within the rest of the web content. For a sighted web user, this caption doesn't add anything to the image this user can't already see.

OPTION 3: SURROUNDING PARAGRAPH TEXT DESCRIPTIONS
The paragraph text below describes the important information contained in the image. This option is NOT generally recommended

"Through intensive collaboration for two semesters (as shown in the photo), the students of Rebecca Tucker's Museum Studies Practicum worked to create an exhibit of John James Audubon's "Birds of America" prints for the Colorado Springs Fine Arts Center. They aim to upend the traditional museum experience, changing the power structure of the museum into a place of equal exchange between visitors and curators."

While this is sufficient, it's not ideal to rely on paragraph text in the surrounding article as this requires coordination between the article writer, the photographer, and the web author to ensure all this is properly formatted and uploaded correctly to the web. Otherwise, computer programs do not know to associate the text with the image. However, referencing the image in the regular text paragraph IN ADDITION to captions is an excellent way to enhance your storytelling.

LISTS

LISTS SHOULD NOT BE USED FOR DECORATIVE PURPOSES SUCH AS INDENTING SOLELY FOR LAYOUT PURPOSES. It is important to format a list as a list.

Elements used for formatting like lists, headings, and links are read aloud to screen reader users, so the content is understood in context.

Unordered lists should be used when there is no order of sequence or importance. Ordered (numbered or alphabetized) lists suggest a progression or sequence. As with headings, lists should be used correctly and for the right purposes. Unordered and ordered lists should always contain list items.

My favorite teams include:

- Denver Broncos
- Minnesota Twins
- Minnesota Vikings
- San Diego Padres

My favorite teams, in order of preference are:

1. Denver Broncos
2. San Diego Padres
3. Minnesota Vikings
4. Minnesota Twins

HYPERLINKS

Write meaningful link text that indicates the link's destination. DO NOT MAKE YOUR HYPERLINKS "CLICK HERE," "HERE," "LINK," "THIS LINK," ETC.

For further clarity, I recommend watching this [video on the NVDA screen reader program go through differently formatted links](). There is some coding lingo but you, as the web author, do not need to focus on those parts.

General guidelines for links that are helpful for all users:

- Avoid using "click here" or similar non-descriptive link text. Everyone using the web knows to click on a link to activate it. Instead, use descriptive link text that tells the user the destination of the link. Where will they be taken if they activate the link?
- If multiple links on a single page include the same link text, all those links should point to the same destination.
- Screen readers say "link" before reading the link. For example: a text link of *"link to discussions"* would be read as "Link link to discussions."
- Users of screen readers will often tab from link to link, which is a form of content skimming, like how a sighted user quickly scrolls the page looking for underlined, differently colored text. Do your links make sense when not in the context of the surrounding content? Are all your links the same word/phrases?
- Using the link URL as the link text is generally not a good idea. A particularly nasty URL (numbers, underscores, dashes, etc.) can be very confusing when listening to a screen reader; it sounds like complete nonsense. It's also not helpful to a sighted person skimming the page because the link also looks like nonsense.

Examples of bad hyperlink text (all go to the same place):
- Learn more about the program [here]().
- [Click here]() for more information.
- For program details, go to this [link]().

Examples of good hyperlink text (all go to the same place):
- [Learn more about the Summer in Spain program.]()
- [CC Summer in Spain]()
- There are numerous opportunities to enhance your language and cultural education, such as [learning the Spanish language and culture in Spain]().

FORMS

CC web authors have access to use Clive, Microsoft, or Google forms to post on their webpages. WE HIGHLY RECOMMEND USING CLIVE. Clive forms are attached to your Cascade CMS account (and thus, your CC account) and allow for more intelligent forms. Both Microsoft and Google forms are attached to personal emails and cause many issues when the individual who created the form(s) leave CC. We, ITS and other web admins, CANNOT simply access these people's email accounts and get editing access to these forms. You can still use Microsoft and Google forms, but you will need to share ownership to others within in your department/office to avoid creating a form from scratch.

To add Clive forms to your page in Cascade CMS, click on the "C" icon in your WYSIWYG toolbar. This will open a sidebar on the right that will allow you to select a form. You start on the "Recent" tab so you might need to move over to the "Browse" tab to find the desired form.

Include an email address and other contact information for those who cannot use your forms. Clive functions on most browsers and assistive programs, but in the case that someone runs into an issue, have an alternative form backup. This can be as simple as a paper version of the online form.

[Clive forms login](#) – use your CC login

TABLES

HTML tables were designed for organizing tabular data, but they have been and still are occasionally used to structure and layout web pages. These days, CSS (Cascading Style Sheets) has replaced the need for table layouts, but you will still occasionally run across them. The most common non-tabular data use for tables on the CC website tends to be for image + text layout. DO NOT use tables to format your webpage content and please change any instances of this you run into on your webpages. It is recommended to use side-by-side content for image + text layout. If you need help with page layout, contact the web communications paraprof (nleung@coloradocollege.edu).

Create data tables with column headers

Designating column and/or row headers in a table is essential to screen reader users in understanding how information is laid out. Screen readers usually have a keyboard command that will inform the user what the column and/or row header is for the data cell their cursor is in, making it easier to navigate and understand the tabular data. Even still, tabular data can be daunting to a screen reader user. It is best to keep tables small if possible, so consider breaking large tables into smaller ones. Always include column and/or row headers on tables.

In Cascade CMS, use the lower-level headings (such as H5 or H6) to designate column and row headers. This is preferred to making these headers bold. If you know how to code, you can also designate your headers with the <th> tag.

Ensure a proper reading order in tables

Screen readers read tables from left to right, top to bottom, one cell at a time (no repeats). If cells are split or merged, the reading order can be thrown off.

Read your table left to right, top to bottom (never repeating a cell). Does it make sense? A screen reader reads tables in this way.

Merged, nested, and split cells change the reading order of tables. Make sure you construct your table in a way that accommodates a good reading order. When in doubt, go for the simplest table structure possible. DO NOT use color to differentiate sections of a table.

Captions in tables are important in HTML pages for screen readers to be able to give the individual a frame of reference for the table, like a title. It should be a table caption, and not a header outside the table. Cascade gives you the option to add a table caption when you submit your page changes. On the page where Cascade gives you the spelling error, broken link, and accessibility checks, navigate to the Accessibility tab using the arrow buttons next to the blue Submit button. The Accessibility tab will let you know if there are tables missing captions along with the option to fix this issue and add a caption. This will show up as dark gray text underneath the table on the live CC website.

See these [examples of good and bad data table layouts](). The screen reader talks quite quickly as this is how people with visual impairments use these programs. Feel free to slow down the video if you cannot understand the speech.

COLOR

DO NOT RELY SOLELY ON COLOR TO CONVEY MEANING.

Don't use color alone to make a distinction, a comparison or to set something off or apart from the rest of the web page (we have headings for a reason!). If you categorize something by color alone, those who are color blind or blind will not benefit from the color distinction. Additionally, web users without visual impairments might have a screen display or monitor setup that distorts the appearance of colors.

This is not to say you cannot use color on your webpage; you just need to include another way to present your information that does not rely on color. Often, CC events have posters and other graphics for promotional purposes that are put on the web. This inclusion is perfectly fine as long as the same information is on the webpage(s) in regular text format. This is a good practice for all users since images/colors/graphics might encounter display errors.

The colors available in Cascade for the CC website provide sufficient contrast in most cases. Change to another color if it doesn't provide enough readability. You can find a preview of the CC brand colors in the CC Visual Identity Guidelines.

One way to test contrast is to print out your page content in black and white. Without sufficient color contrast, people who are color blind will not be able to benefit from the information. Adjustments to web content can be as simple as adjusting the highlights and shadows in images or using black and white for text content.

FLASHING/BLINKING CONTENT

Eliminate flashing or blinking content, or limit to three FLASHES per second.

This type of content is very rare on the CC website but is occasionally used on CC-affiliated social media accounts. In both cases, the same guidelines apply to ensure your videos or graphics are accessible. Refer to the Social Media Best Practices page for more specific guidance on how to best utilize your social media accounts. Contact Jessi Burns, the content and social media manager in Communications & Marketing for any other questions related to creating accessible social media content.

Any flashing/blinking content (especially content in red) can cause seizures in people with photosensitive epilepsy as well as other photosensitive seizure disorders, so it should be limited and used only when necessary. Web pages that do contain flashing content should limit the flashing to no more than three flashes per second and not use fully saturated reds.

ADDITIONAL RESOURCES AND REFERENCES

Please reference the below links for full details on industry standards and legal requirements for website accessibility. I would recommend using ctrl/cmd + F to quickly search these documents using keywords as these resources are comprehensive and include a lot of information that is not applicable to most all web author duties. However, feel free to look through all the information beyond what is listed. I've attempted to curate the most pertinent information for web authors. Please email the web communications paraprofessional Nicole Leung (nleung@coloradocollege.edu) if the links no longer work or with any other questions.

Guidance on Web Accessibility and the ADA (US Department of Justice, Civil Rights Division)

Section 508 Information and Communication Technology Accessibility Standards: Functional Performance Criteria and Technical Requirements (US Access Board)

Web Content Accessibility Guidelines (WCAG 2.0)

- Perceivable – text, images, graphics, video, and audio
- Navigable – menus, reading order, links, sections, headings
- Readable – abbreviations, acronyms, jargon
- Predictable – navigation techniques

WebAIM Color Contrast Checker (extremely useful when creating your own graphics in Canva to ensure readability)

18F Accessibility Guide (Section 508 but written using regular vernacular instead of legal language) .