



ATEN DESIGN GROUP

Creating Accessible Content

Create Accessible Content for Your Website

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Introduction

Having an accessible website is a moral obligation and often a legal one, too. Most content creators assume that accessible websites are completely left to the developers. While developers, designers, and architects play major roles in creating accessible websites, website content managers have a responsibility to make their message available to the widest possible audience, avoid legal issues, reach marketing goals, and most importantly, do the right thing.

This handout is meant to be a resource for content creators to reference while creating and editing various content on their website. Please refer to this guide, or to [Aten's Webinar, Create Accessible Website Content](#), for best practices for creating content for your site, including examples and answering real world questions as they come in.

Create Accessible Images

This section is referring to 'images' as basic content: images, icons, and logos.

Include image descriptions within the caption

It is recommended to include image descriptions associated with each of your images. Not only does this emphasize a point on the page, or the reason for using the image, but it gives the ability to include even more context and description of the image itself for visual and screen reader users.

Descriptions should not be the same as alternative text for the image. Take advantage of the description and give a lot more information about the image.

What is alternative (alt) text?

Alternative text is just as it sounds, it provides a text alternative for non-text content, such as images, on websites and apps.

1. It is read by screen readers in place of images allowing the content and function of the image to be accessible to those with visual or certain cognitive disabilities.
2. It is displayed in place of the image in browsers if the image file is not loaded or when the user has chosen not to view images.
3. It provides a semantic meaning and description to images which can be read by search engines or be used to later determine the content of the image from page context alone.
4. Just because you have included alternative text for the image, doesn't mean it is actually accessible. Accessible alternative text must be accurate and succinct.

Write good alternative (alt) text

In order to write good alternative text for images, your alternative text should:

- 1.** Convey the content of the image within the context of the page
 - This could mean the equivalent to the meaning or purpose of the image
 - The same image could have different alternative text depending on the reason it is being used
- 2.** Keep it succinct
 - It is recommended to stay under 10 words or so for alternative text
- 3.** Avoid Emojis
 - These do not describe the image and can be a nuisance to screen reader users
- 4.** Do not include words like “Image of” or “Graphic of” within the alt text attribute
 - Screen readers announce the element, “image” or “graphic” (depending on the screen reader tech being used) when announcing the alternative text
 - Including descriptive words like, “logo”, “pie chart”, “line graph” or “map” is fine, as it conveys the usage of the image
- 5.** Do not use the file name as alternative text
 - Avoid any alternative text that includes .jpg or .png for example
 - Accurate alt text conveys the meaning of the image. Including the file name does not convey the meaning of the image
- 6.** Images of text should have alternative text that says exactly what is in the image
- 7.** Alternative text is not an SEO keyword fill
 - Accurate alt text conveys the meaning of the image. Filling this attribute with random words does not convey the meaning of the image
 - Doing this can actually hurt your ranking on Google
 - Accurate accessible text can boost your SEO rankings

Create Accessible Complex Images

When referring to complex images, this section is referring to images like maps, line graphs, pie charts, and other infographics. Most of the time, these images require more than the recommended 10 words for alternative text

Pay attention to contrast

Color contrast is important for designers, but also for those creating infographics and charts. This rule of thumb goes for all content, but especially for complex images. Color blindness is extremely common, and sufficient contrast between important contextual elements should be applied to all complex images. For example:

1. Can the user distinguish between the 2 slices in a pie graph?
2. Can the user distinguish between 2 bars in a bar graph?
3. Does embedded text or arrows in the infographic meet color contrast standards?

Do not rely on color alone to convey information

Color should not be the only means of communicating important information to a visual user. Those who are colorblind need to have other ways to distinguish information in case differentiation of color is difficult for the user to see. This goes for non visual users as well - how can they differentiate between all information on the page without being able to see the color? How can they even read the content if it doesn't have sufficient contrast? For example:

1. Text, icons, underlines, or patterns should be implemented along with color
2. Alternative ways to display the information, like a table, should be used or accompanied with the chart.

Include alternative ways to digest a complex image

Complex images can be difficult for some users, especially those with cognitive impairments, to comprehend fully. Giving this information in an alternative more streamlined and data direct approach gives the user choices for comprehension.

- For example, it is recommended to include a table associated with the pie chart to show a more data-driven approach to the infographic

Writing alternative text

Complex images most likely require more than 10 words to describe the full content of the graphic within the context of the page. Because of this, there are 2 ways to write alt text for complex images:

1. Alt text conveys the most important point of the image within the context of the page
 - *alt="Pie chart showing that 40% of households own dogs"*
 - *alt="Denver area map displaying Aten Design Group's location"*
 - *alt="Infographic with arrows pointing to parts of the human body"*
2. The image should be described in a caption or in the context of the page
 - *alt = "Pie chart described in following caption"*
 - *alt="Map directions described on the page"*
 - *alt="Infographic breakdown described in the following table"*

Include a caption description

Captions and descriptions and other helpful text should always be included with all complex images

1. This could be a quick blurb directly below the image within the caption field
2. The caption could be a link to a full page describing the complex image
3. The caption could point to a section of the current page that describes this complex image

Display Accessible Videos

Videos are a great tool for getting a lot of information to a user in a more visual and hands-on format. However, because videos rely heavily on visuals and audio, we need to make sure all videos are displayed in an accessible way.

- 1.** Embed or link to your Vimeo or YouTube video
 - These 2 platforms are the most accessible of all the media players
- 2.** Caption your videos
 - YouTube and Vimeo has an “auto caption” available on all videos
 - This isn’t 100% accurate, but will get you in the right direction
- 3.** Include a transcript
 - Link to a written transcript of the video within the video’s caption
- 4.** Include an audio description for blind or visually impaired users
 - Auto descriptions are necessary for videos showing an act with cause and effect, for example.
 - A great time for audio descriptions would be for a science experiment
- 5.** Include written captions and a description to go with your video
 - Always include a brief caption for every video

Create Accessible Tables

A table allows you to quickly and easily look up values that indicate some kind of connection between different types of data. However, on the web, it seems as if people have abused and overused tables for structure or overcomplicated data. Tables are difficult for screen readers to translate and are almost impossible to work well on mobile.

1. Tables should be used for tabular data only. Not for creating structure.
2. Tables should always include table headers (`<th>`)
 - This can be done in your WYSIWYG with your text editor
 - Headers can be found on a column, a row, or both, depending on the data.
3. Do not overcomplicate tables
 - If tables require a number of `colspans` or `rowspans`, or maybe a table within a table, it is best to leave this up to your developer to implement correctly for all users
4. Include a description
 - Just like complicated and complex images, it is always best to include a caption or intro along with your table that reinforces the objective and outcome of the table.


Write Descriptive Headings and Labels

Descriptive headings and labels are a WCAG guideline everyone should be following. Not only does it make content more scannable for the user, but this also helps with SEO.

1. Describe the topic or purpose
 - a. This ensures that labels and headings are meaningful when read out of context, for example, when jumping from heading to heading within a page. People can easily get to the content they want without issues
2. Gives the user a quick way to scan
 - a. This helps break up the content a little bit more and puts the content into slightly more manageable chunks to read

Write Descriptive Links

According to WCAG, the purpose of each link should be determined by the link text alone. This helps the user for a number of reasons, but one big reason is because screen reader users can navigate by various elements on the page, like links. The user should be able to know exactly where the link goes based on the link text only, and not having to rely on context clues.

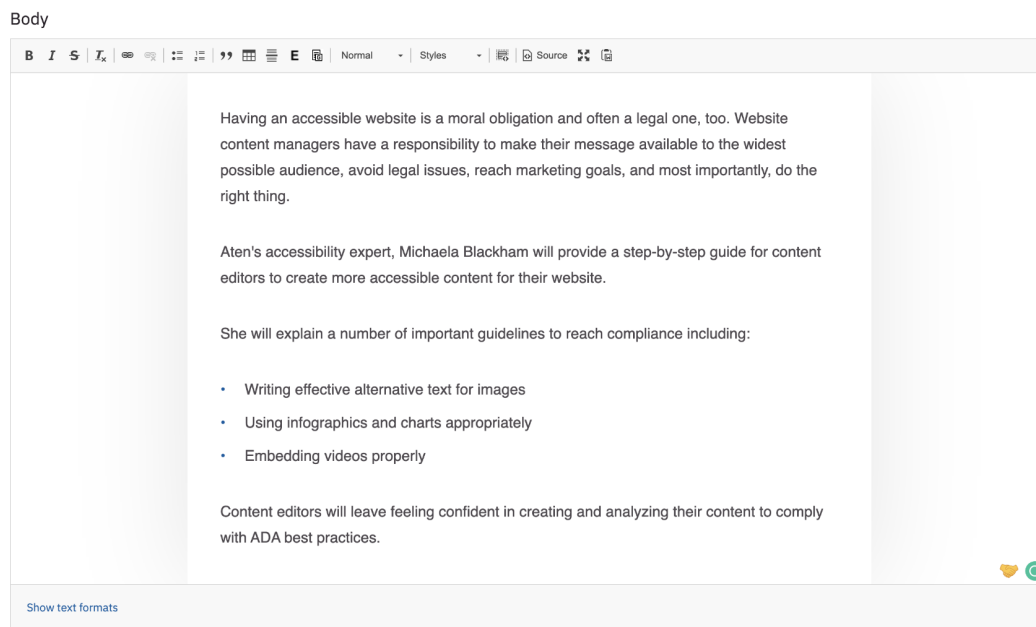
1. Avoid vague links such as
 - [Learn more](#) , [Click here](#) , [Read more](#) , etc
2. Multiple links on a page that say the same thing, but point to different URLs, are considered vague. For example:
 - An event detail page with a [join event](#) link is considered descriptive. There is one link on the page and you know which event you are joining because you went to that detail page.
 - However, an event listing page with 10 events listed and each have a corresponding [join event](#) link, is no longer descriptive and is considered vague because the user will need to do some searching to know what event they are joining.
3. Notify the user that a link is external
 - This means any page that is outside of your .com/.gov/.edu/.org
 - [Sign in to the library \(external\)](#)
 - [Sign in to the library](#) 
4. Notify the user that a link points to an alternative format
 - This means any content that is not to an HTML page
 - .PDF , .DocX , .XLS , Google Doc , Outlook Calendar, etc
 - Link text should include the format
 - [Download the annual report \(PDF\)](#)
 - [Add event to calendar \(Outlook\)](#)
5. All links that are logos and images must have text associated with them
 - Images should include accurate alternative text
 - Include visual text along with the image within the link itself

Use Semantic Markup

When creating semantic scannable content, not only does this make it scannable for you, who may be a visual user, but we need to make it scannable to those who require the use of a screen reader to properly navigate the site. Screen readers have the ability to navigate a site by certain elements. They can jump through all links on a page, all images, all lists, and so on. So a content creator needs to make sure these elements appear visually and semantically for all users. For example:

1. Use an HTML list when you should use a list
2. Use a blockquote for all quotes
3. Use a table for tabular data
4. Use correct heading structure to nest information clearly

You do not need to know HTML to implement semantic markup. This can all be accomplished within your WYSIWYG using the buttons in the toolbar.



The screenshot shows a WYSIWYG editor interface. At the top, there is a toolbar with various icons for text formatting (bold, italic, strikethrough, underline, link, unlink, list, indent, outdent, link, unlink, source, undo, redo) and a 'Normal' style dropdown. Below the toolbar is a text area containing the following content:

Having an accessible website is a moral obligation and often a legal one, too. Website content managers have a responsibility to make their message available to the widest possible audience, avoid legal issues, reach marketing goals, and most importantly, do the right thing.

Aten's accessibility expert, Michaela Blackham will provide a step-by-step guide for content editors to create more accessible content for their website.

She will explain a number of important guidelines to reach compliance including:

- Writing effective alternative text for images
- Using infographics and charts appropriately
- Embedding videos properly

Content editors will leave feeling confident in creating and analyzing their content to comply with ADA best practices.

At the bottom left of the text area, there is a 'Show text formats' link. At the bottom right, there are small icons for a heart and a speech bubble.

Use this optional field to describe the webinar in-depth. This field is not used for anything in Zoom, and will appear both before and after the webinar airs.

Following correct heading structure

Similar to how a visual user will look for headings on a page relevant to the content they are scanning for, screen reader users will do the same thing. A user can be in a section with a heading 2 (H2), and then would like to maybe scan the content of this section, so they jump to look at heading 3's under this H2, to dive deeper into the content and get to exactly what they want. It creates a natural clear flow of content.

Not only is this helpful for screen reader users, but this will help boost your SEO.

In order to follow correct heading structure it is important to:

1. Do not bold paragraphs to make them look like headings
 - Visually this breaks up the content and looks like a heading, but a screen reader user would not be able to distinguish this content as a heading, since it is just a paragraph visually appearing as a heading
2. Do not choose a heading type based on size. You must always follow the correct heading structure.
 - For example
 - i. A Heading 2 (H2) should only ever follow a Heading 1 (H1)
 - ii. A H3 should only ever follow a H2
 - iii. A H4 should only ever follow a H3
 - iv. etc
 - These are numbered on purpose: 1 then 2 then 3 then 4 then 5 then 6
 - Skipped heading levels can cause major confusion
3. If a new style, like a different color or smaller version, is needed for a heading level, talk to your developers to give you this option within the WYSIWYG

Avoid Underlined Text

Emphasizing content is common practice with content writing. However, on the web, it is recommended to avoid using underlined text as a form of emphasis.

1. Text that is underlined is the universal sign for links
2. Use **bold** or *italics* for emphasis on the web instead

Avoid All Capital Letters

Sometimes having other text besides abbreviations, like headings and labels, can look nice as all capital letters. We see this a lot in designs.

However, there are a few reasons to avoid this implementation if possible. Writing in all capital letters is not recommended because:

1. It can be difficult for all users, especially those with cognitive impairments or dyslexia, to read larger quantities of text in all capital letters. Text styles that require all caps are recommended for short headings or labels only.
2. Screen readers read words written in all caps letter-by-letter. Therefore all caps are recommended for abbreviations only, where every user should be reading it letter-by-letter.

If you are choosing to have a heading or label *appear* in all caps, but not actually written in all caps in the HTML, please use the following CSS style to accomplish this.

```
text-transform: uppercase;
```

Social Media

Social media is an important way to get your content out to a large audience. For a full review on how to include accessible content within your social media, please refer to this [Aten Webinar for Accessible Social Media Posts](#), where we break down what to do and how to implement these strategies on each major platform.

Include Alternative Text

Alternative text for social media is the same as it would be for your website. Please follow the normal alternative text guidelines to implement this correctly. And please refer to the webinar listed above to learn how to implement this on each major platform.

Hashtags

Hashtags are an important component of social media posts..

1. Include all hashtags in the first comment in your post rather than in your caption
 - This is recommended for those who use all or get close to the 30 hashtag maximum.
 - Putting the bulk of hashtags in your first comment, Instagram, for example, still picks up on them, but aren't picked up by the screen reader unless that user chooses to read the comments on your post
2. Always write hashtags in camelcase
 - When authoring hashtags that are made up of multiple words, use initial capitalization, also known as camel case. This makes the hashtag easier to read for all users and is more consumable by screen readers, since their synthesized voices can recognize and pronounce individual words, and won't concatenate and garble them.
 - Examples of camelcase hashtags:
 - #AtenDesignGroup
 - #SocialMediaAccessibilityAwareness
 - Unfortunately, Instagram, for example, always suggests an auto correct to lower case, but that's just because that's what most people are using.
 - If we all start making this small change, we will start seeing these auto corrections in a more accessible way!

Add Captions to All Videos

Videos on social media are no different than videos on YouTube, Vimeo, or your website. All videos should include captions for those who have hearing impairments. When applicable, include descriptions of the video, or links to alternative ways to consume this content, like a link to your website, or a transcript.

Using Emojis and Emoticons

Emojis can be a fun way to include more emotion into text messages, social posts, and so on as well as break up large amounts of text. The alternative text for these emojis are really thought out, however, some of the alt text for the emojis can be extremely verbose, and even lose the emotion behind why it was used. Therefore, emojis should not be overused and be used sparingly in social posts.

An example of an emoji and how it is read to a screen reader is:



“person in business suit levitating”

Emoticons are the original emojis. They are used as a pictorial representation of an image using punctuation marks, numbers and letters. We don’t tend to see these as often anymore since the implementation of emojis into our keyboard. It is recommended to stay away from these on all social media platforms.

An example of an emoticon and how it is read to a screen reader is:



“macron, backslash, underline, right parentheses, katakana, left parentheses, underline, slash, macron”

Stay Away from Decorative “Fonts”

This may be one of the most important ones to stay away from. Decorative fonts have been taking over social media to give a bit more variation to your brand or profile, but it is completely inaccessible to screen readers and is a horrible experience for a number of cognitive impairments, including dyslexia. These “fonts” are not fonts at all, but rather mathematical characters that are being used incorrectly.

1. The screen reader will be silent when “reading” those words and only share what you have written in the native font
2. Or it will try its best to understand what the text is, since the text isn’t .
 - Video showing a [screen reader’s attempt at reading decorative fonts](#).

Post to Multiple Platforms

Every user finds various platforms to be more or less accessible. By widening your audience and posting the same, or variation of the same content, to all major platforms will ensure your content reaches the widest audience.

When applicable, include a link back to your website where the original content lives, since HTML is the most accessible form of content consumption for all users.