Web Essentials

The Basics of Creating Accessible Content

Zoom Keyboard Shortcuts: **bit.ly/zoom_keyboard_shortcuts**

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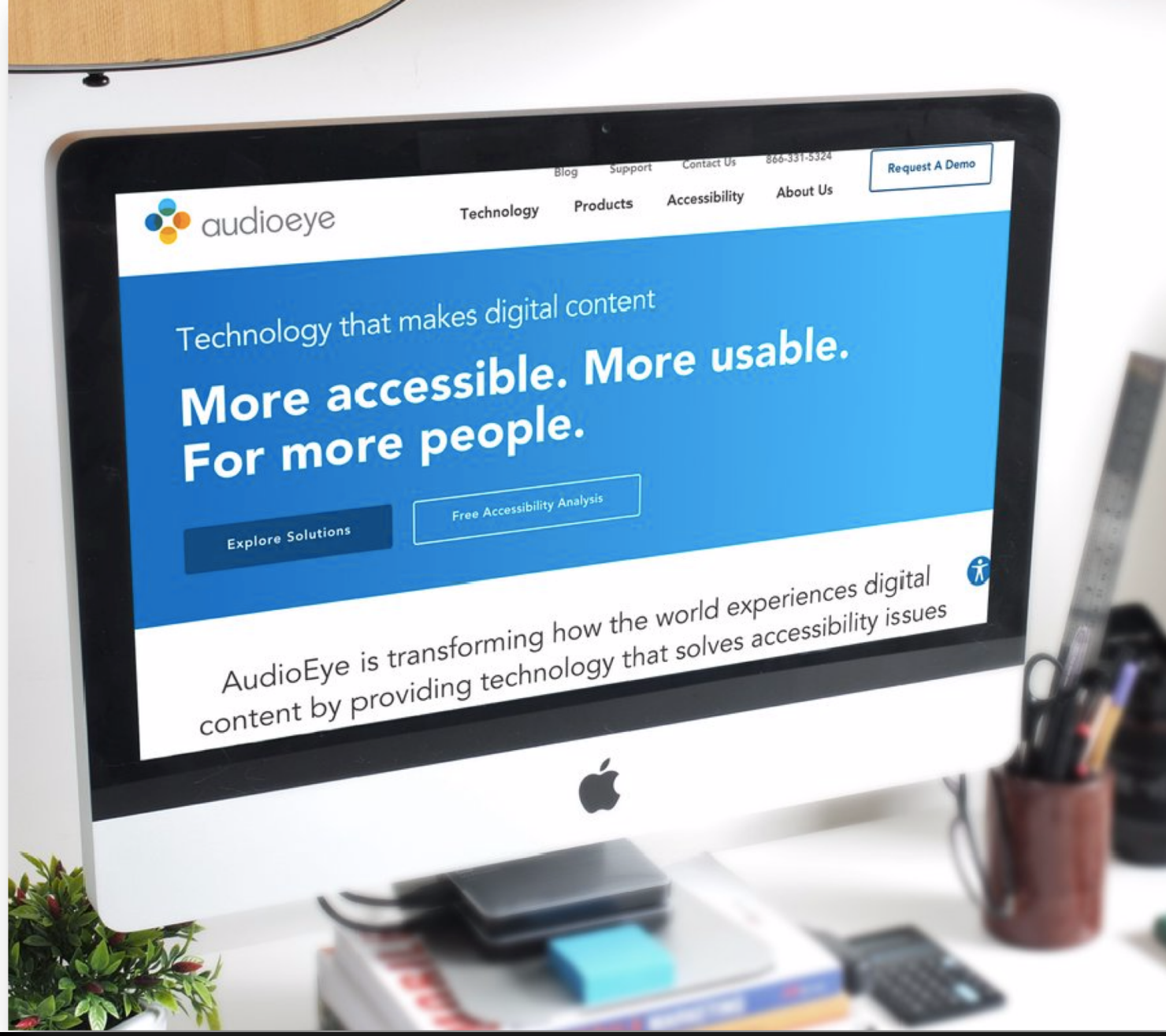
About AudioEye

Leading with technology, AudioEye identifies and resolves issues of accessibility and enhances the user experience, **making digital content more accessible, and more usable, for more people.**

In fact, we serve up more than 1 billion remediation fixes daily.



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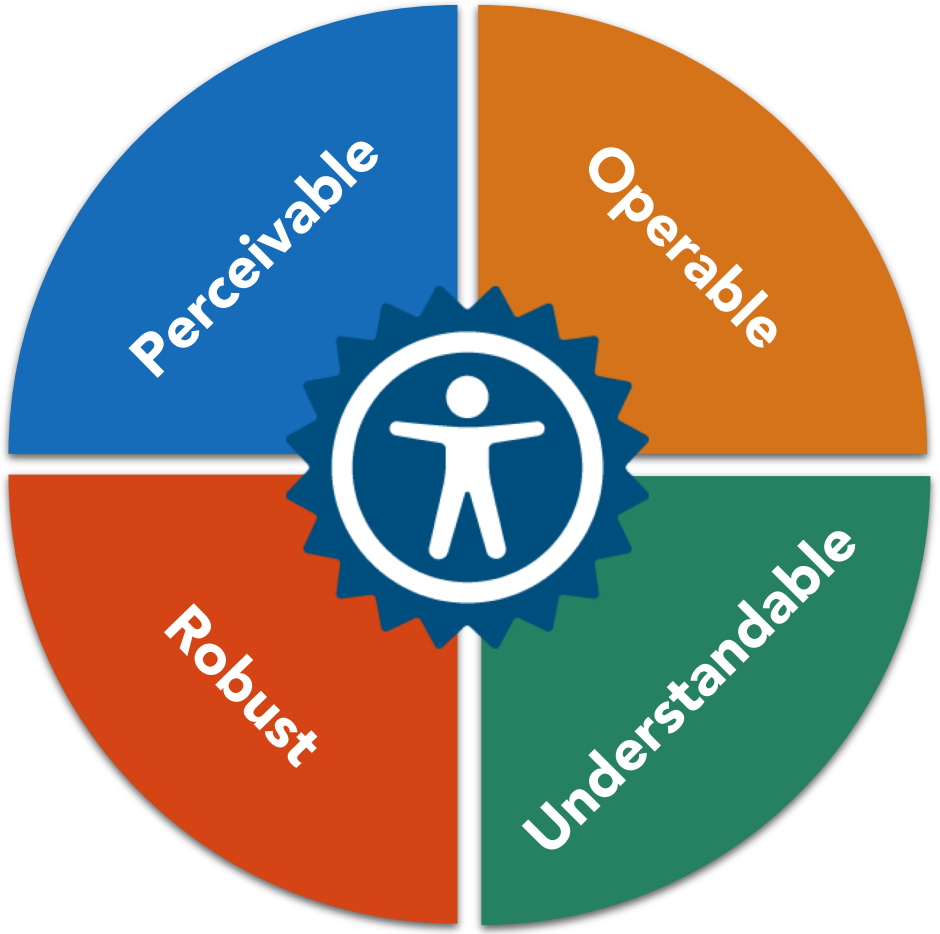
Achieving Digital Accessibility

Web Content Accessibility Guidelines

- Widely accepted technical standards for digital accessibility.
- Created and maintained by the World Wide Web Consortium.
- Include a technology-agnostic list of testable statements.
- If followed the guidelines ensure a high degree of access to the largest possible audience of consumers of the content.
- Version 2.1 was released this year.



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Web Accessibility Essentials

Common Accessibility Errors

This is a list of some of the most common accessibility errors that we see on websites. These errors effect both **compliance and usability** of sites.

- Images and Graphic Elements
- Color Contrast
- Tab/Keyboard Focus
- Form Elements
- Tables
- Headers
- Anchors/Links

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Images and Graphics

- It is critical to have **adequate text representation** of all images and graphics present on the page.
- The rules around the textual representation of images depends upon the image's:
  - Type
  - Purpose
  - Complexity

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Non-Decorative Images

Non-Decorative images are defined as any image that is used to enhance the content and add value or information to the page. Most images on webpage fall into this category.

Recommendations:

- All images should contain the alternative text (alt) attribute.
- If the images is linked, the alternative text should inform the user of the link destination.
- If there is space, a brief image description can follow the link destination text, but is not necessary. An image's alt attribute should contain a clear textual representation of the non-text content.
- If there is text present in the image, that text should appear in the alt attribute.

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Decorative Images

Decorative images are defined as any image that is used for display purposes only, one that does not add value to the content of the page. These may be background patterns, decorative boarders or horizontal separators.

Recommendations:

- Apply null alt attribute to the image.
- Add aria role of presentation to the image tag.
- Add the aria-hidden attribute to the image and set it’s state to true.

Code example

```
<img src="desert-sunset.png" alt=""
role=“presentation” aria-hidden=“true”>
```

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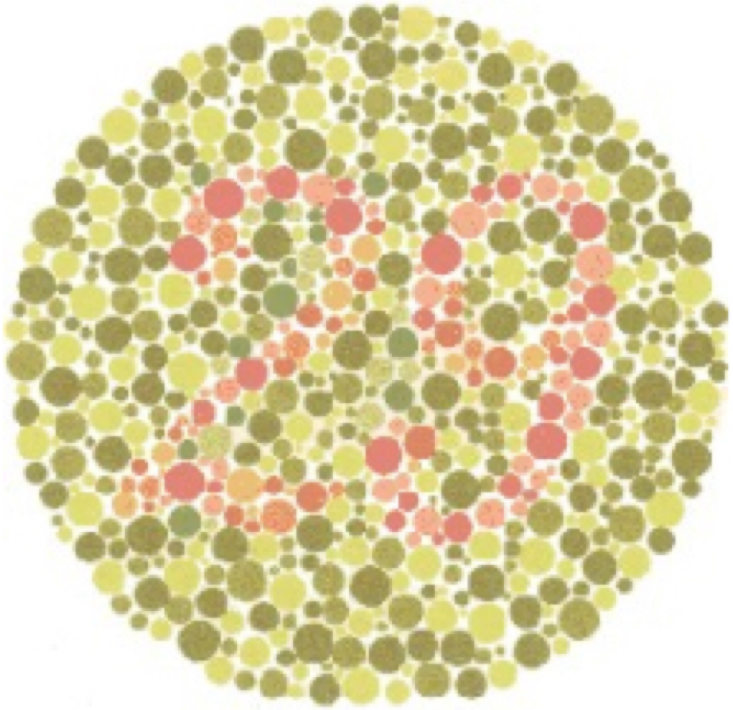
Color Contrast

Not all users are able to distinguish one color from another.

Recommendations:

- Don’t use color as the only visual means of conveying information.
- Color should be used to highlight or compliment what is already visible.
- Ensure sufficient contrast between text/images and the background.
- Helpful Tip: Use color contrast checking tools to determine if the contrast ratio between two colors is high enough.



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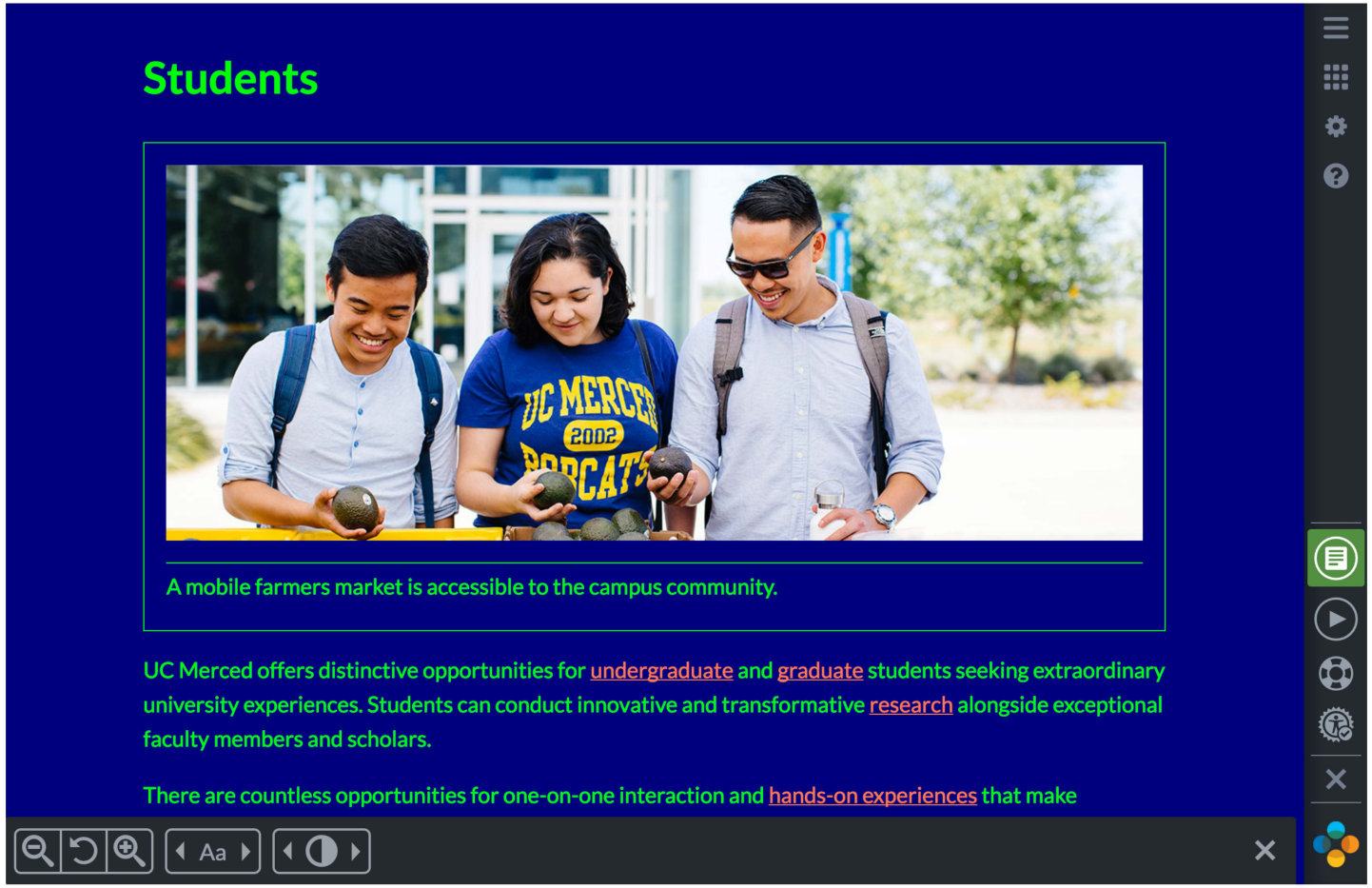
Color Contrast (continued)

Example: Additional Contrast Options With Ally Toolbar



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Keyboard/Tab Visible Focus

All focusable elements (interactive elements) must use additional visual cues/indictors on focus for links or controls where color alone is used to identify them. **Providing visual focus indication for keyboard focus is imperative.**

Recommendations:

- Recommend, at a minimum, not overriding default browser :focus style outline.

Incorrect code example

```
:focus {
outline: 0;
}
```

```
 :focus {
outline: none;
}
```

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Keyboard/Tab Visible Focus (continued)

Recommendations (continued):

- Create a border around the interactive element and its label, typically using the CSS border or outline properties.
- Use the a:focus style for a:hover and depending on the situation even a:active;
- If you remove default focus (i.e. :focus {outline: 0;}), you MUST replace it with a custom accessible focus and hover state

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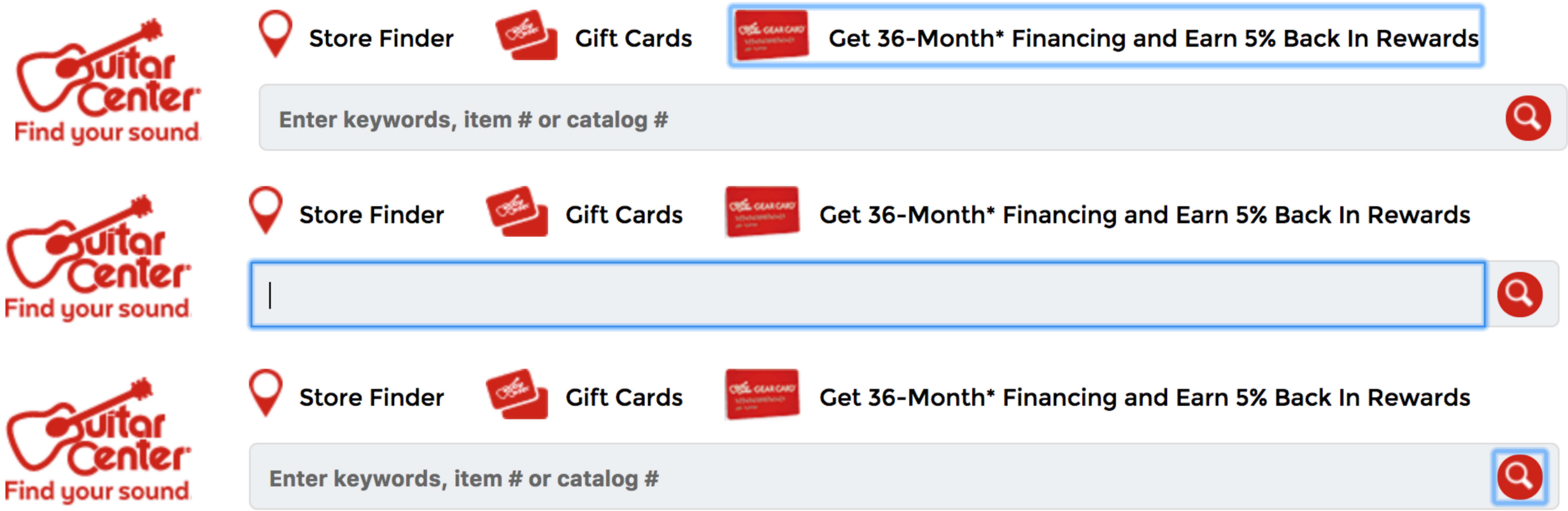
Keyboard/Tab Visual Focus (continued)

Example: Default Focus Indicator in Chrome



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Form Elements

Highly interactive elements like forms need special attention to ensure that they are accessible to all users.

Recommendations:

- All form elements need a label.
- The label-for attribute should be applied to all labels linking them to the ID of the form input they label.
- The placeholder attribute for an input is NOT an accessible alternative to a label.
- All form elements and their associative labels should have a unique ID.
- If not coded correctly some forms can create keyboard traps.

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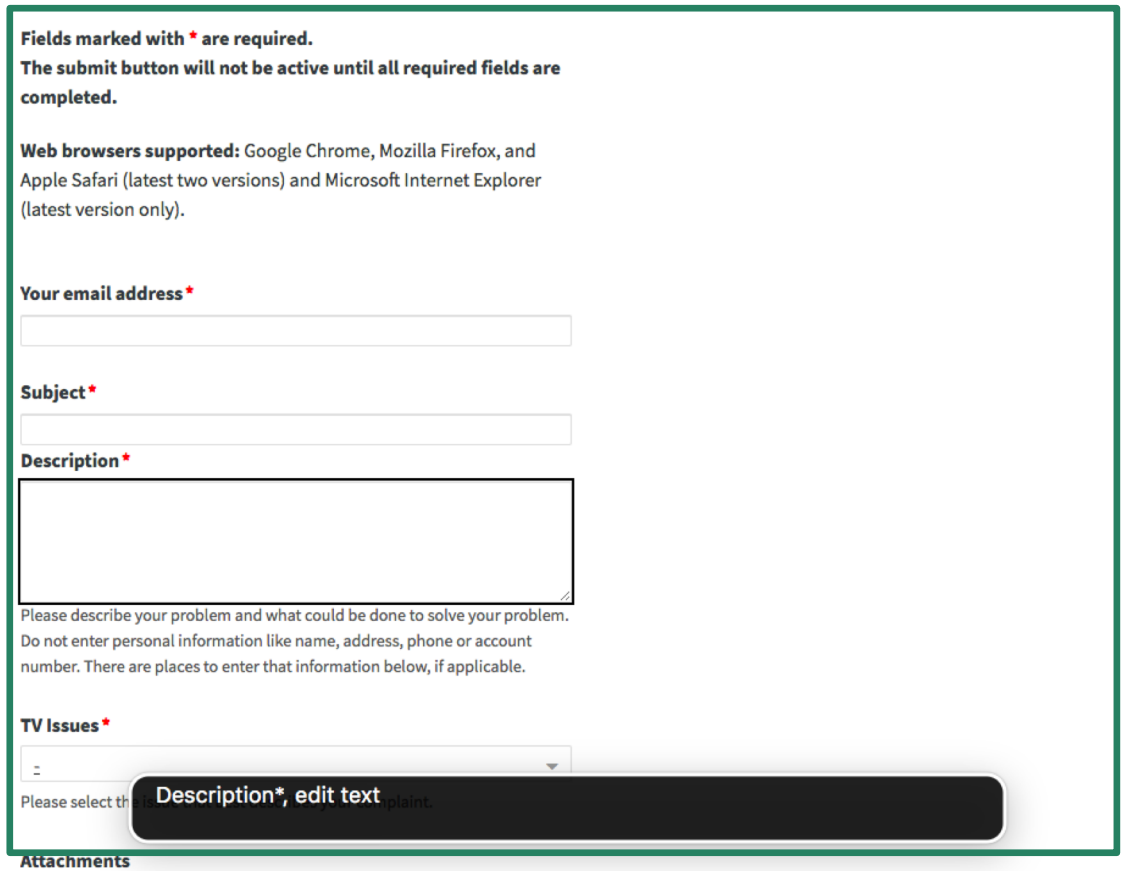
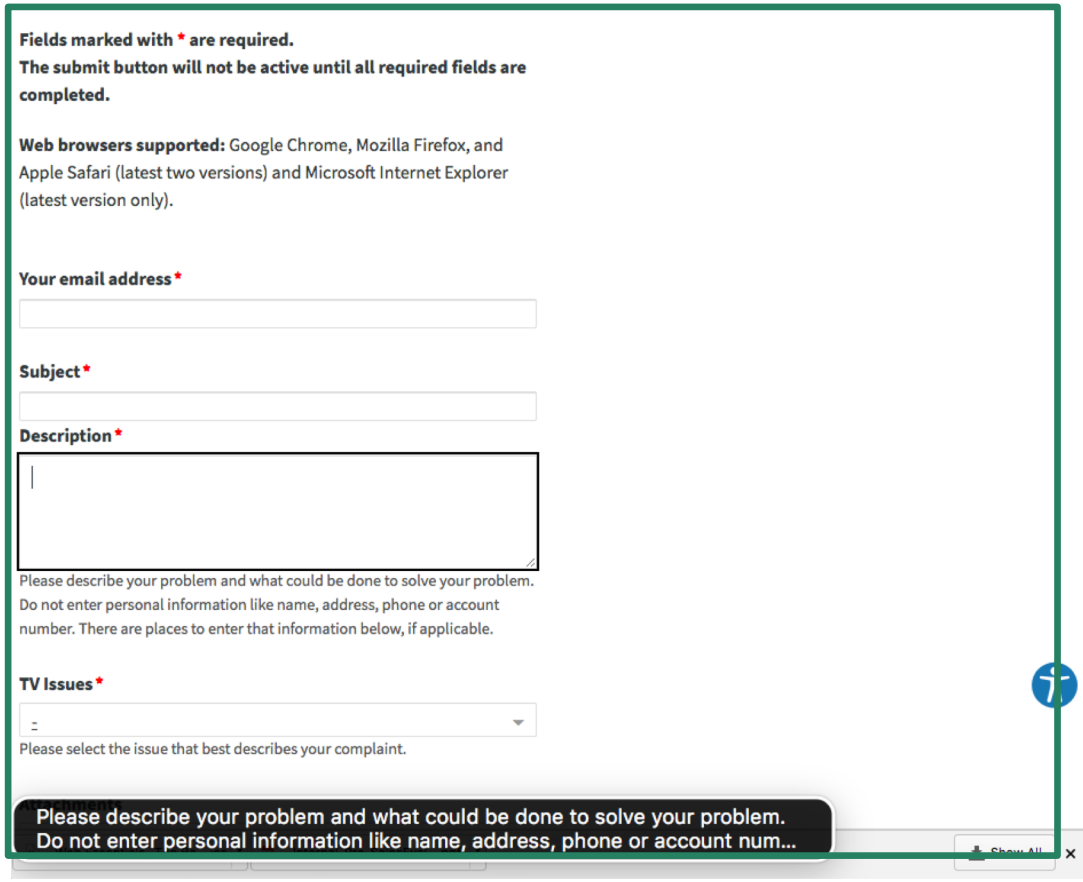
Form Elements (continued)

Example: Form Fields and Descriptions:





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Tables

In the modern fluid web, tables should no longer be used for layout purposes. Instead, tables should only be used to present tabular data.

Recommendations:

- Use table headers to categorize information. Be sure to use <th> tags to define headers so the important information in each of the table cells is associated with the appropriate header description.
- Use the “scope” attribute to associate table headers with a row or column: <th scope=“col”> or <th scope=”row”>
- Rather than use a header to title a table, add a styled <caption> element to the table. This will associate the intent of the information with the table.

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Headings

Users of assistive technologies often rely on heading elements to gain an understanding of the outline and regions of a web page. For this reason it is important to use headings as they were originally intended, to convey the hierarchical flow of content.

Recommendations:

- Paragraph tags should not be used as headings
- Headings should not be used to establish or fortify vertical spacing.
- Headings should be used in their standard hierarchical flow. h1 tags should be used first followed by h2 for sub-sections with h3 for further subdivisions, and so on.
- Headings should not skip levels.
- Headings should not be used to style elements, but rather to convey the information present on the page.

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Headings (continued)

Recommendations (continued):

- If you wish to use heading elements for style purposes only, you can apply role="presentation" to the heading element. Example: <h4 role="presentation">
- To change a current heading level or turn any other style of element into a heading of a specific level, add role="heading" and aria-level="#", where the # is the correct heading level.

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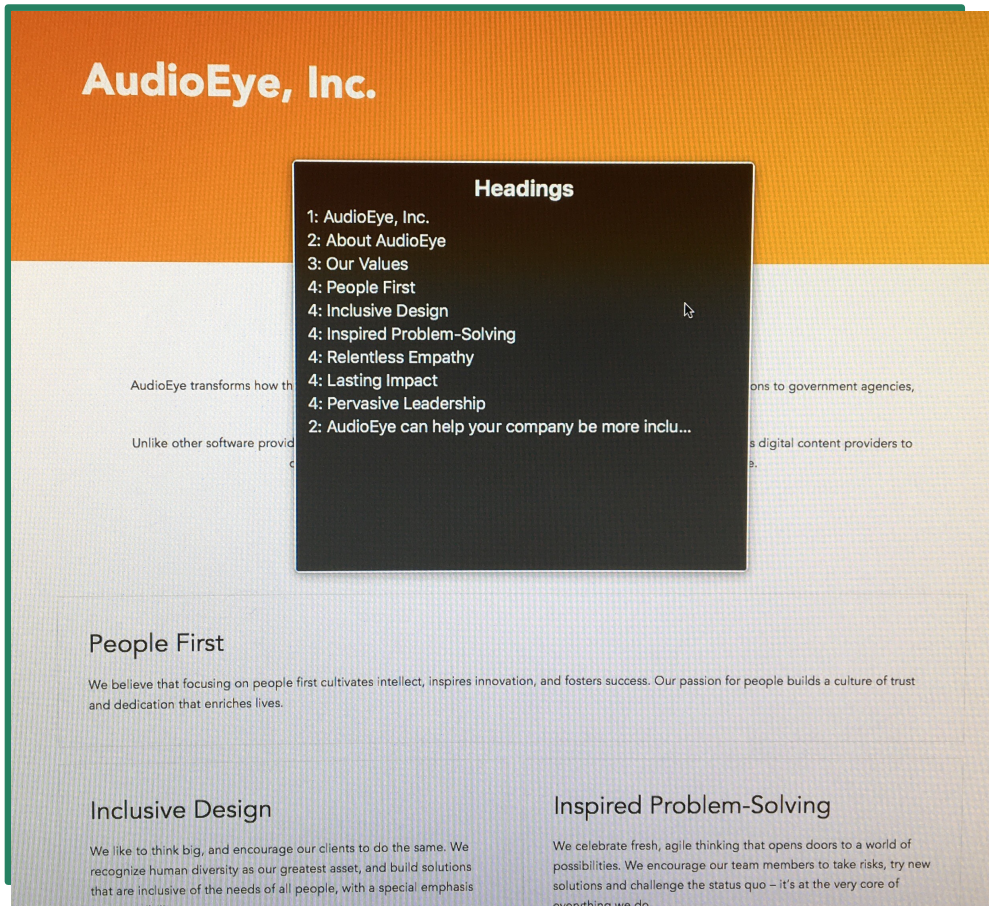
Headings (continued)

Example: VoiceOver Heading Rotor



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Anchors and Links

Like headings, users of Assistive Technologies regularly use “hot keys” to quickly list all of the anchor tags that exist on the page. This quick navigation through anchors helps a user understand the additional information that is available from the page. For this reason it is extremely important to ensure that anchors contain descriptive and pertinent information.

Recommendations:

- Don’t rely only on images inside of anchors. Use either text to supplement the image or use a tag inside the anchor that describes the link action, and then use CSS to visually position the span outside of the viewport.
- Don’t rely on the anchor title attribute. Assistive technologies will only read anchor titles when there is no text present.

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Anchors and Links (continued)

Recommendations (continued):

- Avoid ambiguous text within the anchor. “Click here” or “Read more” are not helpful links when the context of the link is unknown.
- Join adjacent links that navigate to the same location. For example if an image and a text link both go to the same location don’t use two different links, instead combine both the image and text in the same anchor.

Code examples

```
<a href="/bulldogs">History of Bulldogs</a>
```

Standard link

```
<a href="/natural-treats"><img src=/happy-dog-
natural-treats.png” alt="">All Natural Dog
Treats</a>
```

Combined adjacent image and link (avoid duplicate description)

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Key Takeaways

1. Accessibility is about people.
2. By making your digital content accessible you are also making it more usable for everyone.
3. Design and develop with empathy.
4. AudioEye is an end-to-end solution.

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Thank You

Please, submit additional questions & attendance lists for certificates of completion to training@audioeye.com.