What is the aria-describedby attribute, and how does it work?

The aria-describedby attribute is used to provide additional information about an element to screen reader users by referencing existing content on the page. It creates a programmatic association between the element and the content (technically referred to as an accessible description), which screen readers can use to inform users of the additional information when they interact with the element.

The most common use for aria-describedby is to associate instructions and error messages with form inputs. Due to the various methods screen reader users have for navigating a page, they may miss these messages when navigating between inputs. Using aria-describedby helps ensure that they will hear them.

Let's take a look at a few examples to understand how it works. In this first example, we have a form element that accepts a password:

<form>

<label for="password">Password:</label>

<input type="password" id="password" aria-describedby="password-help" />

<p id="password-help">Your password must be at least 8 characters long.</p>

</form>

We are using a label element for the Password text and associating that with the password input field.

We also have a paragraph element that describes the password requirements. We are using the aria-describedby attribute to associate the password input field with the password requirements in the paragraph element. When a screen reader user interacts with this input, their screen reader will announce the name of the input (Password) and may then also announce the password requirements. This is not an absolute guarantee however as some screen readers may not automatically announce the additional content, or may only announce it in specific circumstances. This is not uncommon. Each screen reader is different and handles ARIA attributes in their own way. This does not negate the use of aria-describedby, as it will benefit screen reader users in general.

Another good use case for the aria-describedby attribute is when you have a delete button. Here is an example of a delete button followed by a message describing what will happen when the button is clicked:

<button aria-describedby="delete-message">Delete</button>

<p id="delete-message">Warning! All deletions are permanent.</p>

Just like in the earlier example, we associate the delete button with the message using the aria-describedby attribute. The id value and the value of the aria-describedby attribute must match.

The aria-describedby attribute is a powerful attribute that can be used to help ensure that additional information about an element is provided to screen reader users when they interact with the element. It is most commonly used to associate instructions and error messages with form inputs in order to reduce the chance that screen reader users will miss these messages as they navigate the form.