Error Messages & Validation

What is it for?

Form errors are a major barrier for all users, but they can completely block users with disabilities. Inaccessible errors include:

- Just highlighting a field in red is useless for screen reader users and people with colour blindness
- Vague messages like 'Invalid input' or 'Error' tell the user nothing about how to fix it
- When a form fails to submit, screen reader users are often left at the top of the page, not knowing what or where the error is

This is a core design pattern, not a single tag. Support depends on using standard HTML and Accessible Rich Internet Applications (ARIA) attributes (`aria-describedby`, `aria-invalid`, `aria-live`) correctly. This is a key part of Web Content Accessibility Guidelines (WCAG)'s 'Perceivable', 'Understandable' and 'Robust' principles and works in all modern browsers.

How to support it

Errors need to be clear, visible, and announced.

- Be specific. Don't say 'Invalid', instead say something like 'Please enter a valid email address (e.g., name@example.com).'
- Don't use colour alone, always add a text message and/or an accessible icon (like an X) next to the field.
- Connect the error. Use `aria-describedby` to programmatically link the input field to its error message. This tells screen readers to announce the error when the user focuses on that field
- Manage Focus. When a form submission fails, ideally, move focus to the first field with an error. If that's not possible, move the focus to a summary of errors at the top of the form
- Use aria-invalid="true". Set this on the input field so assistive tech knows it has an error

Useful links

- World Wide Web Consortium (W3C) WAI - Validating Input
- Level Access - Designer Tips: Creating Accessible Forms