Colour Blindness

What is it for?

Colour blindness (or Colour Vision Deficiency) is about more than just seeing in black and white. It affects roughly 1 in 12 men and 1 in 200 women. It changes how people perceive the world, which is a huge issue if colour is the only way information is conveyed. For example, a 'red for error' and 'green for success' status light might look the same to someone with red-green colour blindness.

How to support it

Design content to accommodate the various ways that people see. Here are the main types:

- Red-Green is the most common, and it has two main types:
    - Protanopia - Red light looks dark. Crucially, purple often looks just like blue to these users.
    - Deuteranopia - Green light is hard to detect. This means red and green can look almost identical (often a muddy yellow-brown).
- Blue-Yellow (Tritanopia) is much rarer. It makes it hard to distinguish between blue and green, or yellow and red.
- Monochromacy is very rare. This is seeing no colour at all, only shades of grey.

To make your work accessible, never rely on colour alone. Always add a text label, an icon, or a pattern (like hatching on a chart) so the information is clear regardless of the colour.

Useful links

- Coblis - Color Blindness Simulator
- We are Colorblind
- World Wide Web Consortium (W3C) - Use of Color