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Accessible Authentication

What is it for?

When login pages are inaccessible, the impact can be severe, harming a person's fundamental rights to privacy, security, and independence.

Barriers must be removed for users with cognitive needs by ensuring logins don't rely on difficult memory tests or puzzles. Forcing people to pass these checks often locks them out of vital services.

Designing authentication with accessibility in mind creates a more secure and usable experience for all users.

How to support it

To make login pages accessible, developers should follow these steps:

- Don't rely solely on puzzles or memory tests. Always provide an alternative method.
- Support password managers and allow users to paste text. This improves both accessibility and security.
- Never disable autofill by setting autocomplete to 'off'. Forcing people to type complex details causes unnecessary difficulty.
- Offer flexible alternatives like biometrics, one-time codes, and magic links.

Useful Links

Understanding SC 3.3.8: Accessible Authentication (Minimum) (W3C)
Accessibility in Cybersecurity: A Practical Guide
The autocomplete attribute and web security (Mozilla Developer Network)

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Accessible Links

What is it for?

Links need descriptive text so everyone can understand them. While 'click here' links might work visually, people using assistive technology often scan links out of context and will just hear a repetitive list.

You should also avoid using raw URLs, as screen readers read out every single character, which is tedious, annoying, and disorientating.

How to support it

Link text must clearly describe its destination without context. If it's inside a sentence, make sure it flows well while remaining informative.

You should always avoid vague phrases like 'here', 'click here', 'read more', and 'more information'.

Useful Links

Yale University - Links
WebAIM - Links and Hypertext
Reading University - Accessible Links

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Accessibility Debt

What is it for?

Accessibility debt is like technical debt, but for accessibility. It refers to all the accessibility issues that build up over time when inclusive practices aren't followed from the start.

Just like tech debt, the longer it's left unmanaged, the harder (and more expensive) it becomes to fix.

How to support it

You don't use accessibility debt - you accumulate it when things like semantic HTML, alt text, proper labelling, or keyboard navigation are skipped or broken. Here's how to manage or 'pay it off':

- Run regular accessibility audits (manual and automated)
- Add accessibility issues to your backlog and track them like bugs
- Prioritise fixes that block user journeys (e.g. login, forms, navigation)
- Fix inaccessible components in your design system
- Include accessibility in your development and design workflow to prevent new debt

Useful Links

Understanding Accessibility Debt: What It Is and How to Manage It
Accessibility Debt Is Real — Here's How to Prevent It
Accessibility Debt: What Happens When You Do Accessibility Last

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Accessibility Overlays

What is it for?

Accessibility overlays are automated tools that promise a quick, effortless fix for web compliance.

While they detect basic errors like colour contrast, text size, and layout, they don't provide a complete solution. They can even introduce new barriers themselves, including inaccessible buttons and poor screen reader support.

To learn more, check out the Overlay Fact Sheet for a full explanation and feedback from real users.

How to support it

Simply - don't! Ensure that you're building accessibility into your designs and into your code, rather than relying on a 3rd party.

Useful Links

Siteimprove - Accessibility overlays
Overlay fact sheet

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Accessibility Testing

What is it for?

Accessibility Testing is the process of checking a digital product to ensure it can be used by people with disabilities. Its purpose is to find and fix barriers before your users do. Without testing, you're guessing if your product works for everyone. This can lead to significant problems, such as:

- People using screen readers or keyboards are blocked from completing tasks
- Users with disabilities face a broken or frustrating product
- Your product may fail to meet legal standards like the WCAG
- Finding problems after launch is much harder and more expensive to fix

How to support it

An effective strategy combines three testing methods:

- Automated software scans code for basic flaws, but it doesn't catch more than half of all issues.
- Manual testing relies on humans to check complex areas, including keyboard navigation, zoom levels, and screen reader support.
- User testing gathers feedback from people with disabilities, which is the only way to prove a site is 'truly usable'.

Useful Links

Best Practices for Accessibility Testing - A Comprehensive Guide
The Importance Of Manual Accessibility Testing
Accessibility Testing: How It Works and Why It's Important

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ASCII Art

What is it for?

ASCII art is the practice of arranging punctuation and symbols to create a picture, like the 'shrug' ¯_(ツ)_/¯ or drawings of animals.

While sighted users see a picture, a screen reader reads the content linearly. It cannot 'see' the image. Instead, the user hears a chaotic string of punctuation names: "Slash, backslash, underscore, vertical bar, colon..." It is noisy and blocks them from getting to your actual content.

How to support it

You can still share these visuals, but you should change the format to be inclusive.

- Take a screenshot of the ASCII art you want to share.
- Upload the screenshot rather than pasting the text directly.
- Write a description of the image as alt text (e.g. "A line drawing of a rabbit made of text characters").

Useful Links

How screen readers read special characters
RNIB - Making social media accessible

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Assistive Technology (Beyond Screen Readers)

What is it for?

Assistive technology includes tools that help people with disabilities use a computer.

Devices like magnifiers, switches, and voice control allow people to navigate without a standard mouse or keyboard.

Poor design, like tiny text or mouse-only buttons, can completely block these users.

How to support it

Support these tools by making website layouts compatible with them.

- Prioritise keyboard navigation so users can browse using only the 'Tab' and 'Enter' keys.
- Ensure layouts don't break when text is zoomed, and use clear, written labels instead of just icons.
- Make sure any information shown on hover is also available by tabbing to it.

Useful Links

WebAIM - Introduction to Assistive Technology

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Basic Accessibility Testing

What is it for?

Testing makes sure that what gets built actually works for everyone. The goal is to never accidentally ship a beautiful page that's completely broken for someone using a screen reader or a keyboard.

While automated tools are awesome, they aren't magic. They only catch about 30% of accessibility errors. An automated tool can check if a picture has an image description (alt text), but it can't tell you if the description actually makes sense. You still have to use your own judgment to check the rest.

How to support it

You don't need to be an expert to test your site. Try these three quick checks right now.

- Use 'Tab' to move forward, 'Shift + Tab' to go back, and 'Enter' to select. Check that you can reach every button without a mouse.
- Zoom your browser to 200% using 'Ctrl' or 'Cmd' and '+'. Ensure text doesn't overlap or vanish off the screen.
- Run a free scanner like Lighthouse or Axe DevTools in Chrome. It'll quickly flag basic bugs like poor colour contrast.

Useful Links

W3C - Easy Checks (A first review of Web Accessibility)
WebAIM - Testing with a Keyboard

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Breadcrumbs & Wayfinding

What is it for?

Breadcrumbs show a user's current location within a website's hierarchy.

They help everyone understand where they are, how they got there, and how to navigate back. This context is essential for screen reader users and people with cognitive impairments.

Bad wayfinding leaves users confused, disoriented, and forced to start their journey over.

How to support it

To make breadcrumbs accessible, you should build them using structured code.

- Wrap an ordered list in a navigation element with a 'breadcrumb' label.
- Don't make the final item a link, and ensure you mark it as the current page.
- Hide visual elements like arrows or slashes from screen readers, or use a pre-built accessible component.

Useful Links

Breadcrumbs for Accessibility: Examples & Best Practices
Breadcrumbs
Accessible Breadcrumbs

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Captions & Transcripts

What is it for?

Captions and transcripts textually represent audio content to make media accessible.

Captions are synced with video, making them vital for users who are deaf, hard of hearing, or have cognitive difficulties.

Transcripts provide an untimed text alternative, which helps people who learn best by reading.

How to support it

Many standard platforms make it easy to generate and display these text alternatives.

YouTube and Zoom feature built-in settings to enable captions. Zoom will even let you save the text as a transcript after you've finished recording.

Some platforms like Slack can auto-generate a transcript when you upload a video directly. Simply copy the text, fix any odd punctuation, and share the final document.

Useful Links

YouTube: Add subtitles and captions
How to Create a Transcript: A Step-by-Step Guide (2025)
Transcripts
What are Captions?

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Colour Blindness

What is it for?

Colour blindness affects many people, altering how they perceive the world around them.

It's a huge issue if colour is the only way information is conveyed.

Common indicators like 'red for error' and 'green for success' can look exactly the same to some users.

How to support it

Design content to accommodate the various ways that people see.

Different conditions mean people can't always distinguish between reds, greens, blues, or yellows.

Don't rely on colour alone, and always include a text label, an icon, or a pattern.

Useful Links

Coblis - Color Blindness Simulator
We are Colorblind
W3C - Use of Color

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Dark Mode

What is it for?

Dark mode swaps the typical view to display light text on a dark background, toning down screen brightness.

It reduces eye strain, saves battery on certain screens, and helps users with light sensitivity.

However, it isn't a perfect fix, as it can cause text to blur for users with astigmatism, and it may confuse certain types of colour blindness.

How to support it

You can implement dark mode through coding preferences or manual user options.

Use the 'prefers-color-scheme' media query to match system settings, or add a toggle switch so users have full control.

Designing for email is much more complex, as different clients render dark mode differently, often applying their own forced colour inversions.

Useful Links

Dark mode & accessibility myth
Inclusive Dark Mode: Designing Accessible Dark Themes For All Users
Pros and cons of using dark mode
5 myths about dark mode - and the realities

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Device Orientation

What is it for?

Think about how you hold your phone. Sometimes you hold it tall (portrait) to read, and sometimes you turn it sideways (landscape) to watch a video.

For some people, turning their device is not an option. A person who uses a power wheelchair might have their tablet bolted to the armrest so it won't fall. If a website forces the screen to be held portrait, but their tablet is locked to landscape, they can't use it. It's like bolting a TV in portrait orientation on your wall and being told to tilt your head to watch it.

How to support it

Websites and apps should work no matter how the screen is turned.

Never use code that forces the screen to stay in just one direction
Build designs that stretch or stack neatly to fit the screen, whether it's tall or wide

Useful Links

W3C - Understanding Orientation
A11y Tip: Device Orientation

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Flashing & Photosensitivity

What is it for?

High-energy videos with strobing effects or rapid transitions can be physically dangerous. For people with epilepsy, if content flashes more than three times per second, it can trigger seizures. For people with vestibular disorders, intense motion like rapid spinning or "shaky cam" can cause immediate dizziness, nausea, and vertigo in users with inner-ear balance issues.

How to support it

Safety is about moderation.

- Ensure nothing flashes more than three times in one second
- Avoid rapid spinning or intense zooming
- If a video must contain flashing (e.g. concert footage), add a static "Warning: Flashing images" cover slide so users can scroll past before it auto-plays
- Avoid autoplay on websites, let users choose to start the video manually

Useful Links

Epilepsy Society - Photosensitive Epilepsy
Designing Safer Web Animation For Motion Sensitivity

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Focus States

What is it for?

Focus states occur when we focus on an interactive element. Interactive elements include links, buttons, and input fields. You can focus on an element by clicking something that doesn't navigate away or change your focus, or by using your keyboard and pressing the Tab key until that element is selected.

Focus states must follow all recommended accessibility guidelines. For instance, if a user with low vision uses a screen magnifier, then they may not be able to see context, so link or button text needs to be descriptive.

How to support it

If you're building or designing a new component, ensure that focus states are defined, following all accessibility guidelines (e.g. colour contrast, tap target size, descriptive text, etc.).

Useful Links

Understanding focus state styles
Wise - Focus states
Focusing on focus states

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Focus Traps

What is it for?

Focus traps are when a keyboard user tries to tab away from a page element (or set of elements), but is unable to do so. There are cases where this is incredibly useful (such as when using modals), but in most cases, focus traps are frustrating to the user. Effectively, a user's focus gets trapped, hence the name 'focus trap'.

How to support it

In most cases, you'll want to be avoiding focus traps. They can be implemented accidentally, so it's always important to test your pages by using the keyboard only before any changes go live.

If you genuinely want a focus trap, use a pre-built accessible component like a Modal, which handles focus trap behaviour automatically.

Useful Links

Understanding focus state styles
Wise - Focus states
Focusing on focus states

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Head Pointer

What is it for?

Head pointer allows users with limited hand function to control a computer cursor using head movements and, in some cases, facial expressions. It's an accessibility feature available on macOS (sorry, Windows and Linux users) and can be enabled through System Settings.

How to use it

As Head Pointer is so customisable, a full breakdown isn't possible here. However, the short version is that it can control your cursor by tracking your head and eye movements, using facial expressions to perform certain actions. Try sticking your tongue out to left-click, or if you can wink, that's a fun option to experiment with!

Take a look at the links below, get it set up to your preferences, and see if you can survive an hour working with it!

Useful Links

Move the pointer using Head Pointer on MacOS
An introduction to MacOS Head Pointer

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Hover States

What is it for?

Hover states are what happen when a mouse pointer moves over an interactive element. Interactive elements include things like links, buttons, and inputs.

Hover states must also follow all recommended accessibility guidelines. For instance, if a user with low vision uses a screen magnifier, then they may not be able to see context, so link or button text needs to be descriptive.

How to support it

If you're building or designing a new component, ensure that hover states are defined, following all accessibility guidelines (e.g. colour contrast, tap target size, descriptive text, etc.)

Useful Links

A lot of bovver over hover
Accessible button design
Hover Actions and Accessibility: Addressing a Common WCAG Violation

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Personas

What is it for?

Essentially, Personas are fake people. Their lives, issues, and accessibility requirements allow you to role-play as that person while you test for accessibility. It brings a humanity to accessibility testing, as while Personas are fake people, there are real people who live with the conditions and requirements that the Personas have.

How to support it

Start by going to the HMRC Personas website, and run through each of their Personas, attempting the tasks that are set. Once you've done that, take the learnings and the methods that you've used, and use them to test your own work for good accessibility practices.

Useful Links

HMRC Personas

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Screen Reader Only Styling

What is it for?

Screen reader only styling ensures that everyone who uses a website can access the important information it contains. In most cases, this is achieved with semantics, alt text and aria labels. However, in some cases, we want something to only be 'seen' by screen readers.

For instance, on many websites pressing the Tab key reveals a 'Skip to main content' button. It allows screen reader users to skip all of the navigation links in the header — saving them time and removing barriers.

How to support it

You can add the code on this page into your CSS, LESS, SASS, or any other CSS-based styling.

When you're using things like display: none; consider whether a screen reader user would benefit from the thing you're hiding. That's a great time to use this styling!

```
.sr-only {
   border: 0;
   clip: rect(0 0 0 0);
   height: 0.0625rem;
   margin: -0.0625rem;
   overflow: hidden;
   padding: 0;
   position: absolute;
   width: 0.0625rem;
   white-space: nowrap;
}
```

Useful Links

WebAIM - Invisible content
CSS Tricks - Inclusively Hidden

Social Media: Custom Fonts

What is it for?

People often use generator websites to make their text look unique (e.g. 𝒸𝓊𝓇𝓈𝒾𝓋𝑒 or 𝐛𝐨𝐥𝐝). However, these are not real fonts. They are mathematical symbols from the Unicode standard designed for equations, not language.

When a screen reader encounters this text, it does not read the word. It reads the mathematical description of every single character. 𝐻𝑒𝓁𝓁𝑜 ("Hello") becomes "Mathematical script capital H, mathematical script small e..." which renders the message completely unintelligible.

How to support it

The kindest thing you can do is avoid these generators entirely for your display name, bio, and captions.

- Use the default keyboard font provided by the platform. This ensures your text is readable and searchable.
- Since you cannot use bold or italics on most apps, use simple capitalisation to highlight key words instead.

Useful Links

Accessible Social - Just Not My Type

Social Media: Emojis

What is it for?

Emojis add personality and tone to our messages, but for a screen reader user, they are read aloud as literal text descriptions. For example, a simple smiley face is read out as 'Smiling face with open mouth'.

When emojis are used excessively or incorrectly, this feature can become overwhelming. If you string ten 'Clapping hands' emojis together, the user has to listen to the phrase 'Clapping hands' repeated ten times in a row. Similarly, if you use an emoji as a bullet point, the user hears the emoji name before every single item on the list, which distracts from the content.

How to support it

To keep your content fun but readable, follow these best practices:

- Use them sparingly. One or two emojis are usually enough to convey a mood
- Put them at the end. Place emojis at the end of a sentence or paragraph so they do not interrupt the flow of reading
- Never replace a word with an emoji (e.g. writing 'I want [pizza emoji]')
- Check the emoji description. Use a site like Emojipedia to check exactly how your chosen emoji will be described to a blind user

Useful Links

Emojipedia
Accessible Social - Emoji
The Good, The Bad, And The Ugly: Emojis and Accessibility

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Social Media: Hashtags

What is it for?

Imagine trying to read a sentence where all the spaces have been removed. It would look like a jumble of letters that takes real effort to decipher. That is exactly what a screen reader encounters when it reads a hashtag written entirely in lowercase.

If you write #superbowl, a screen reader might read it as "Superb Owl" rather than "Super Bowl". By capitalising the first letter of each word, we give the technology a clear signal of where one word ends and the next begins. This ensures the hashtag is pronounced correctly and is easier for everyone to read visually.

How to support it

Make hashtags accessible with a few simple adjustments.

- Always capitalise the first letter of every word, like '#SocialMediaMarketing'. This helps screen readers pronounce words correctly and improves clarity.
- Keep your hashtags short. Combining too many words makes them difficult to process, even with capital letters.
- Place hashtags at the very end of your post. Don't put them in the middle of a sentence, as this disrupts the reading flow for assistive technology users.

Useful Links

Accessible Social
RNIB - How to make your social media accessible
Hootsuite - Inclusive Design for Social Media

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Text Alternatives for Complex Images

What is it for?

Standard 'alt text' is great for simple photos, but it often fails for complex data like charts, graphs, flowcharts, or infographics. A single sentence cannot convey all the information provided. People using screen readers (or anyone who struggles to process dense visual data) must be able to access the same information as everyone else.

How to support it

It requires a two-step approach because a short description is not enough

- Use the standard 'alt text' to briefly identify the image (e.g. 'Bar chart showing revenue')
- Provide the full data in a text format nearby

For charts and graphs, place a properly formatted data table immediately below the image.
For infographics, provide a full text transcript or a link to a page that outlines all the information in the same order.
For diagrams, write a structured list or description that walks the user through the flow.

Useful Links

WAI - Complex Images
WebAIM - Accessible Images

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Tooltips & Popovers

What is it for?

Tooltips and popovers give users extra info on demand, but they often fail accessibility by being:

- Mouse-only. They don't appear for keyboard users (focus).
- Silent. Screen readers don't announce the new content.
- Hard to close. Users get 'stuck', or the tooltip vanishes too fast.

It's important to note that popovers and modals are not the same thing. A modal demands your full attention, while a popover just offers extra information

How to support it

They must work for keyboard, mouse, and screen reader users.

- Simple tooltips (read-only info) should show on hover and focus, and use aria-describedby to link the trigger button to the tooltip. This is how screen readers announce it
- Complex popovers (with buttons/links inside) should trigger on click (not hover), manage keyboard focus, and be easy to close

Useful Links

WAI-ARIA Authoring Practices - Tooltip Pattern

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Touch Gestures

What is it for?

Imagine trying to open a heavy door, but the rule is you can only use your pinky fingers. For someone with shaky hands, or someone who uses a special typing wand held in their mouth, doing a pinch-to-zoom or a three-finger swipe on a screen is just as hard. If a map app only lets you zoom in by pinching, those users are completely stuck.

How to support it

Always provide a simple, single-finger tap option for every complex action.

- If a map requires pinching to zoom, include standard tap buttons like '+' and '-'.
- If a panel requires swiping, add a visible menu button to tap instead.
- Ensure no vital action relies on twisting, pinching, or multi-finger movements.
- Keep complex gestures as handy shortcuts, but don't make them the only way to get things done.

Useful Links

W3C - Understanding Pointer Gestures
WebAIM - Motor Disabilities