



Inclusive design resources



Accessibility Guidelines

WCAG 2.0 Guidelines

This section is normative.

Principle 1: Perceivable - Information and user interface components must be presentable to users in ways they can perceive.

Guideline 1.1: Text Alternatives: Provide text alternatives for any non-text content so that it can be changed into other forms people need, such as large print, braille, speech, symbols or simpler language.

1.1 Non-text Content: All non-text content that is presented to the user has a test alternative that serves the equivalent purpose, except for the situations listed below. (Level A)

- Controls, Input:** If non-text content is a control or accepts user input, then it has a name that describes its purpose. (Refer to Guideline 1.3 for additional requirements for controls and content that accept user input.)
- Time-based Media:** If non-text content is a time-based media, then it must provide descriptive identification of the non-text content. (Refer to Guideline 1.2 for additional requirements for media.)
- Text:** If non-text content is primarily intended to be read if presented in text, then test alternatives at least provide descriptive identification of the non-text content.
- Sensory:** If non-text content is primarily intended to create a specific sensory experience, then test alternatives at least provide descriptive identification of the non-text content.
- CAPTCHA:** If the purpose of non-text content is to confirm that content is being accessed by a person rather than a computer, then test alternatives that identify and describe the purpose of the non-text content are provided, and alternative forms of CAPTCHA using audio or video are provided as an alternative that would be invited if presented in text.
- Decorations, Formatting, Invisible:** If non-text content is pure decoration, is used only for visual formatting, or is not presented to users, then it is implemented in a way that it can be ignored by assistive technology.

Guideline 1.2: Time-based Media: Provide alternatives for time-based media.

1.2.1 Audio-only and Video-only (Pre-recorded): If pre-recorded audio-only and pre-recorded video-only media, the following are true, except when the audio or video is a media track in a document or media item. (Level A)

- Pre-recorded Audio-only:** An alternative for time-based media is provided that presents equivalent information for pre-recorded audio-only content.
- Pre-recorded Video-only:** Either an alternative for time-based media or an audio track is provided that presents equivalent information for pre-recorded video-only content.

1.2.2 Options (Pre-recorded): Options are provided for all pre-recorded audio content in synchronized media, except when the media is a private alternative for text and is clearly labeled as such. (Level A)

<https://www.w3.org/TR/WCAG20/>

And an excellent quick guide from <https://twitter.com/joechidzik> (abilitynet)

<http://3pha.com/wcag2/>

Interactive WCAG 2.0

Filter by Level: Level AAA •

Principle 1: Perceivable

Information and user interface components must be presentable to users in ways they can perceive.

Guideline 1.1: Text Alternatives: Provide text alternatives for any non-text content so that it can be changed into other forms people need, such as large print, braille, speech, symbols or simpler language.

1.1.1 - Non-text Content

WC3 Recommendation WebAIM Recommendation

1.1.2 - Time-based Media

WC3 Recommendation WebAIM Recommendation

1.1.3 - Audio-only and Video-only

WC3 Recommendation WebAIM Recommendation

1.1.4 - Options

WC3 Recommendation WebAIM Recommendation

<http://bit.ly/2qlrMyD>

18F Accessibility Guide

[Read more 18F Guides](#)

Search - click or press ?

Tools

Color Tools

- **WebAIM color contrast checker** compares two hex colors and tells you whether they meet WCAG AA and AAA contrast thresholds.
- **Snook's color contrast analyzer** lets you adjust RGB and HSV values and reports contrast compliance interactively.
- **WC3 State palette accessibility evaluator** lets you compare contrast between three or more colors for WCAG AA or AAA Compliance.
- **Color Safe** is a guide for choosing colors that meet WCAG contrast thresholds.
- **Color Contrast Analyzer** is a desktop application for contrast checking that also simulates different forms of color impairment.

COLOR IMPAIRMENT

- **Color Oracle** is another desktop application for simulating color impairment on your entire screen.
- **Daltonize** is a collection of bookmarks that simulate the three most common forms of color impairment (protanopia, deutanopia, and tritanopia) on any web page.
- **colorblind** is another simulation tool similar to Daltonize, but with more options (protanomaly, deutanomaly, deutanopia, tritanomaly, tritanopia, achromatopsia, and achromatomaly) in a single bookmark.
- **postcss-colorblind** is a CSS build tool that modifies colors in your CSS to simulate four common color impairments.

Designing for users on the autistic spectrum

Designing for users of screen readers

Designing for users with low vision

Designing for users who are Deaf or hard of hearing

Designing for users with dyslexia

<https://accessibility.18f.gov/tools/>

GDS accessibility posters

<https://accessibility.blog.gov.uk/2016/09/02/dos-and-donts-on-designing-for-accessibility/>

Mobile Guidelines

Mobile Accessibility: How WCAG 2.0 and Other W3C/WAI Guidelines Apply to Mobile

W3C Editor's Draft 15 August 2016

This version: <http://w3c.github.io/mobile-A11y-TF-Note/>

Latest editor's version: <http://www.w3.org/TR/mobile-accessibility-mapping/>

Latest editor's draft: <http://w3c.github.io/mobile-A11y-TF-Note/>

Abstract

Status of the Document

Introduction
WCAG 2.0 and Mobile
Guidelines
Other W3C/WAI Guidelines Related to Mobile
Mobile
User Agent Accessibility
Browsers
Mobile and Accessible Mobile
Authoring Tools

1. Mobile accessibility considerations primarily related to Principle 1:
Perceivable

- 1.1 Small Screen Size
- 1.2 Zoom Magnification
- 1.3 Color Contrast
- 1.4 Non-Linear Screen Layouts

2. Mobile accessibility considerations primarily related to Principle 2:
Operable

- 2.1 Keyboard Control for Touchscreen
- 2.2 Touch Target Size and Spacing
- 2.3 Touchscreen Gestures
- 2.4 Touchscreen Manipulation Gestures
- 2.5 Placing buttons where they are easy to access

3. Mobile accessibility considerations primarily related to Principle 3:
Understandable

- 3.1 Changing Screen Orientation and Resolution
- 3.2 Content Layout
- 3.3 Providing important page elements
- 3.4 Grouping operable elements that perform

Status of This Document

This section describes the status of this document at the time of its publication. Other documents may supersede this document. A list of current W3C publications and the latest revision of this technical report can be found in the W3C Technical Report index at <https://www.w3.org/2012/02/>.

How WCAG 2.1 guidelines apply to mobile
<http://w3c.github.io/Mobile-Ally-TF-Note/>

Interactive WCAG 2.0

Filter by Level: Level AAA *

Principle 1: Perceivable

Information and user interface components must be presentable to users in ways they can perceive.

Guideline 1.1 Text Alternatives: Provide test alternatives for any non-text content so that it can be changed into other forms people need, such as large print, braille, speech, symbols or simpler language.

1.1.1 - Non-text Content

W3C Recommendation: WebAIM Recommendation

1.1.1.1 - Text

Alert role example using an ARIA alert box

1.1.1.2 - Image

Alert example using a modal ARIA dialog box

1.1.1.3 - Label

Button role example using text-only buttons

1.1.1.4 - Link

Button role example using image buttons

1.1.1.5 - Form

Checkboxes using IMG elements for visual state

1.1.1.6 - Media

Checkbox group using IMG elements for visual state

1.1.1.7 - Progress

Checkbox group using background images for visual state

1.1.1.8 - Table

Checkbox group using ARIA CSS Selectors for visual state

1.1.1.9 - Other

Checklist with an associated checkbox

Guideline 1.2 Time-based Media: Provide alternatives for time-based media.

1.2.1 - Audio-visual content

ARIA design patterns
<https://www.w3.org/TR/wai-aria-practices/>

OpenAjax Examples

Example Markup Summary

Number	Description	Type	child nodes	aria-label	aria-labelledby	label	title	legend	HTML
1	Alert role example using an ARIA alert box	BP	no	no	Yes	Yes	no	no	none
2	Alert example using a modal ARIA dialog box	BP	no	no	Yes	Yes	no	no	none
3	Button role example using text-only buttons	BP	no	no	Yes	no	no	no	none
4	Button role example using image buttons	BP	no	no	Yes	no	no	no	none
5	Checkboxes using IMG elements for visual state	BP	Yes	no	no	no	no	no	none
6	Checkbox group using IMG elements for visual state	BP	Yes	no	no	no	no	no	none
7	Checkbox group using background images for visual state	BP	Yes	no	no	no	no	no	none
8	Checkbox group using ARIA CSS Selectors for visual state	BP	Yes	no	no	no	no	no	none

Checklist with an associated checkbox

Open AJAX Examples using ARIA
<http://oaa-accessibility.org/>

BBC MOBILE ACCESSIBILITY GUIDELINES

Home

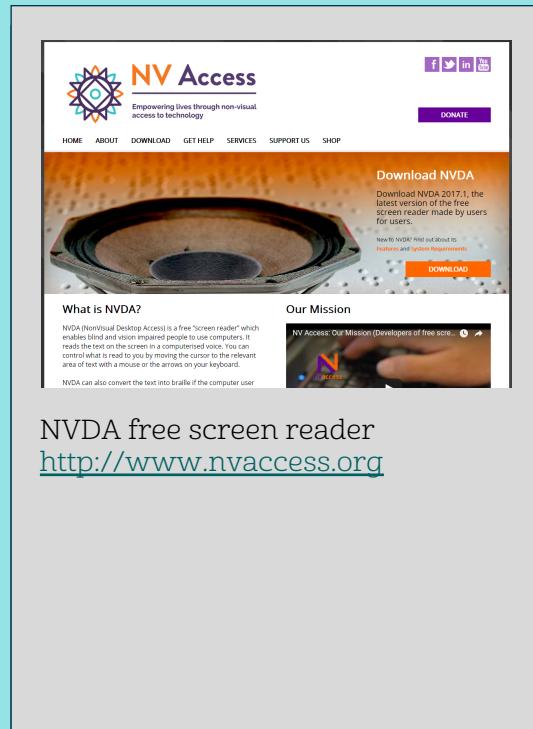
The BBC Standards and Guidelines for Mobile Accessibility are a set of technology agnostic best practices for mobile web content, hybrid and native apps. This prototype is for use by BBC employees and suppliers and anyone else involved in the development of mobile and native websites and apps. Find out more about the BBC Mobile Accessibility Standards and Guidelines.

USER EXPERIENCE **DEVELOPMENT** **EDITORIAL** **RESOURCES**

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Summary
Principles
Design
Focus
Forms
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Notifications
Script and dynamic content
Structure
Test Equivalents
About
Glossary

BBC mobile accessibility guidelines
<http://www.bbc.co.uk/guidelines/futuremedia/accessibility/mobile>

Assistive technology and tools



NV Access
Empowering lives through non-visual access to technology

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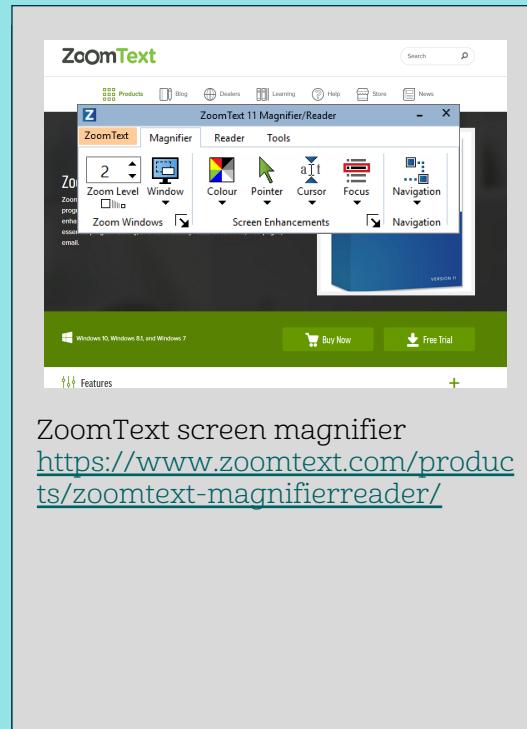
Download NVDA
Download NVDA 2017.1, the latest version of the free screen reader made by users for users.

What is NVDA?
NVDA (NonVisual Desktop Access) is a free "screen reader" which enables blind and vision impaired people to use computers. It reads the text on the screen in a computerised voice. You can control what is read to you by moving the cursor to the relevant area of text with a mouse or the arrows on your keyboard.

Our Mission
NV Access: Our Mission (Developers of free screen reader)

DONATE

NVDA free screen reader
<http://www.nvaccess.org>



ZoomText
ZoomText 11 Magnifier/Reader

ZoomText **Magnifier** **Reader** **Tools**

Zoom Level **Window** **Colour** **Pointer** **Cursor** **Focus** **Navigation**

Screen Enhancements

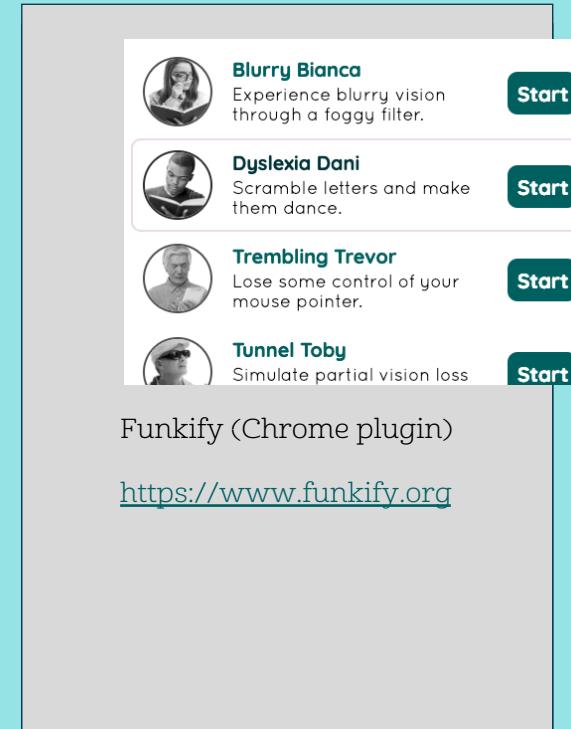
VERSION 11

Windows 10, Windows 8.1 and Windows 7

Buy Now **Free Trial**

Features

ZoomText screen magnifier
<https://www.zoomtext.com/products/zoomtext-magnifierreader/>



Blurry Bianca
Experience blurry vision through a foggy filter.

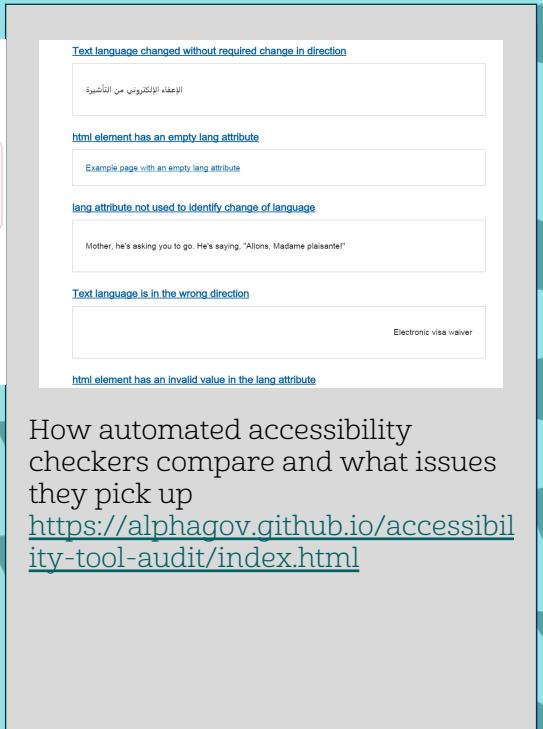
Dyslexia Dani
Scramble letters and make them dance.

Trembling Trevor
Lose some control of your mouse pointer.

Tunnel Toby
Simulate partial vision loss

Start **Start** **Start** **Start**

Funkify (Chrome plugin)
<https://www.funkify.org>



Text language changed without required change in direction
الإعاء الإلكتروني من التأشيرة

html element has an empty lang attribute
Example page with an empty lang attribute

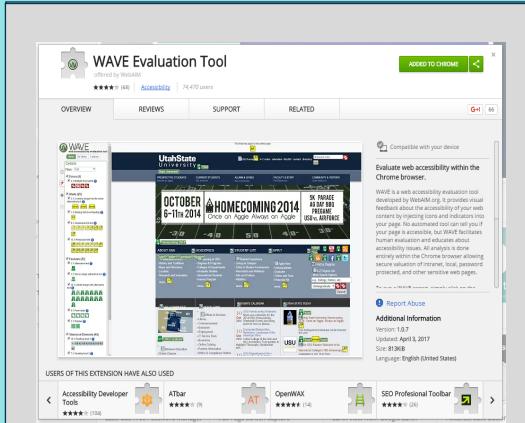
lang attribute not used to identify change of language
Mother, he's asking you to go. He's saying "Allons, Madame plaisir!"

Text language is in the wrong direction

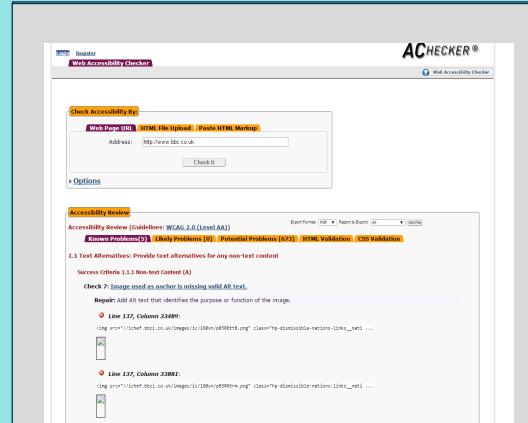
html element has an invalid value in the lang attribute
Electronic visa waiver

How automated accessibility checkers compare and what issues they pick up
<https://alphagov.github.io/accessibility-tool-audit/index.html>

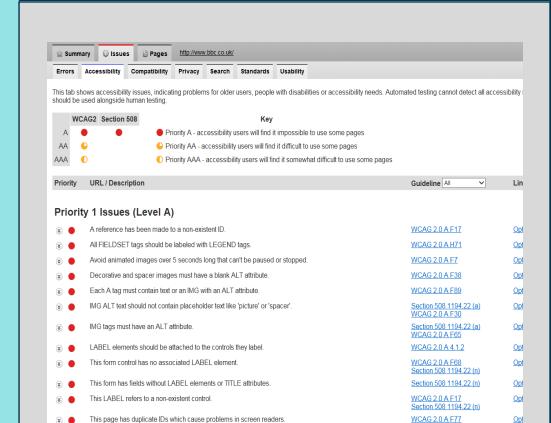
Automated Tools



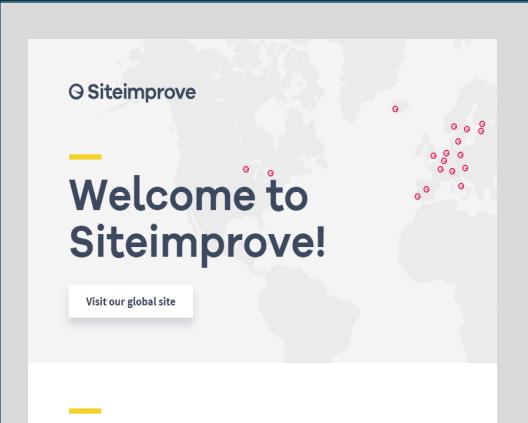
Wave Chrome extension
<https://chrome.google.com/webstore/detail/wave-evaluation-tool/jbbplnpkjmmebjpijfedlgcdlocoh>



Achecker – automated test using code view
<http://achecker.ca/checker/index.php>

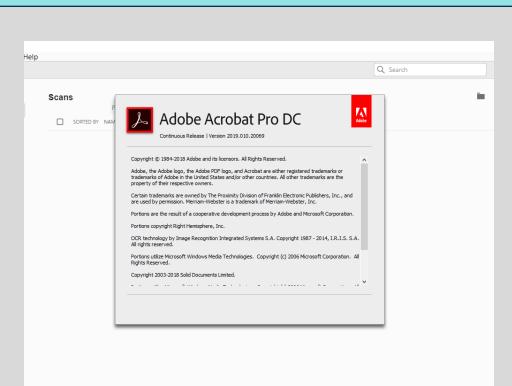


Sort sight (by Power mapper) -tests more than one page at a time
<http://www.powermapper.com/products/sortsite/>

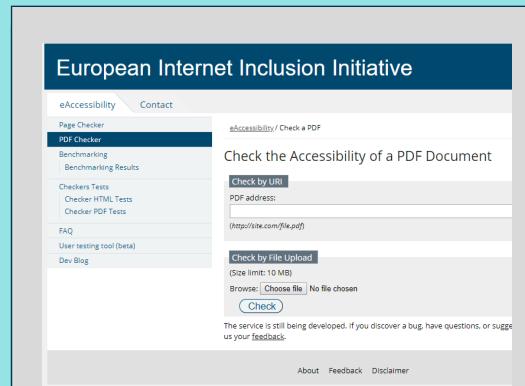


SiteImprove – automated test using code and style sheets
<https://siteimprove.com/>

PDF Tools

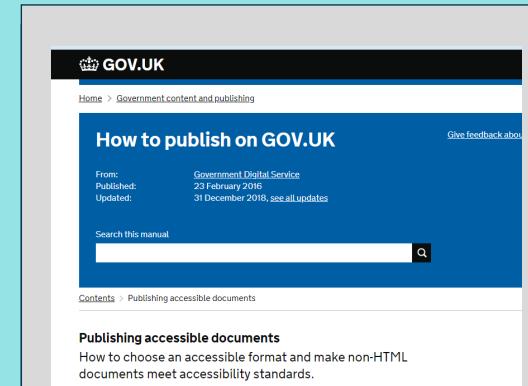


Adobe Acrobat Pro
<https://acrobat.adobe.com>



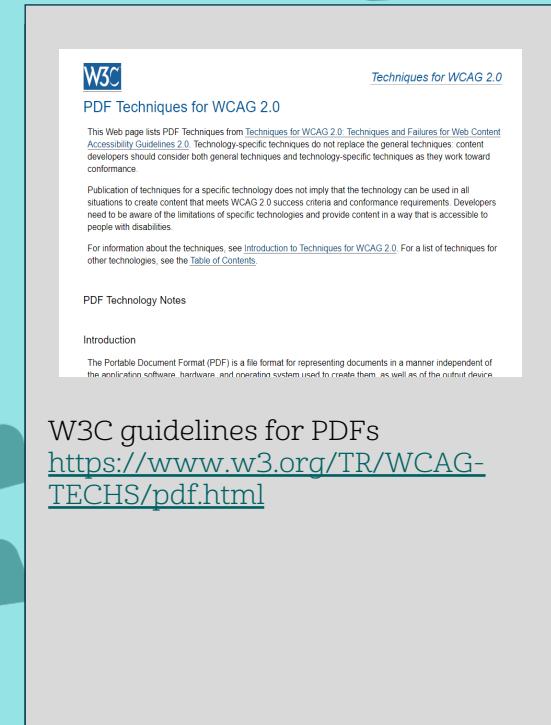
The screenshot shows a web-based PDF accessibility checker. At the top, there's a navigation bar with links for 'eAccessibility' and 'Contact'. Below it is a sidebar with options like 'Page Checker', 'Benchmarking', 'Checkers Tests', 'FAQ', and 'User testing tool (beta)'. The main content area has a heading 'Check the Accessibility of a PDF Document' and two input fields: 'Check by URI' (with a URL entered) and 'Check by file Upload' (with a file chosen). A 'Check' button is below these fields. A note at the bottom says 'The service is still being developed. If you discover a bug, have questions, or suggest us your feedback.' At the very bottom are links for 'About', 'Feedback', and 'Disclaimer'.

European Internet Inclusion
Initiative PDF automated checker
<http://checkers.eiii.eu/en/pdfcheck/>



The screenshot shows a GOV.UK page titled 'How to publish on GOV.UK'. It features a dark blue header with the GOV.UK logo and a navigation menu. The main content area has a heading 'How to publish on GOV.UK' and a sub-section 'Publishing accessible documents' with the text 'How to choose an accessible format and make non-HTML documents meet accessibility standards.' At the bottom of the page are links for 'Contents' and 'Publishing accessible documents'.

Government advice for PDFs
<https://www.gov.uk/guidance/how-to-publish-on-gov-uk/accessible-pdfs>



The screenshot shows a W3C page titled 'PDF Techniques for WCAG 2.0'. It includes a header with the W3C logo and a sub-header 'Techniques for WCAG 2.0'. The main content area contains several sections: 'PDF Techniques for WCAG 2.0' (with a note about its scope), 'Introduction' (with a note about the Portable Document Format), 'PDF Technology Notes' (with a link to 'Introduction to Techniques for WCAG 2.0'), and 'Table of Contents' (with a note about other technologies).

W3C guidelines for PDFs
<https://www.w3.org/TR/WCAG-TECHS/pdf.html>

Great reads

Inclusive Design Principles



Contributors: [Henny Swan](#), [Ian Pouncey](#), [Heydon Pickering](#), [Léonie Watson](#)

These Inclusive Design Principles are about putting people first. It's about designing for the needs of people with permanent, temporary, situational, or changing disabilities — all of us really.

Inclusive Design Principles

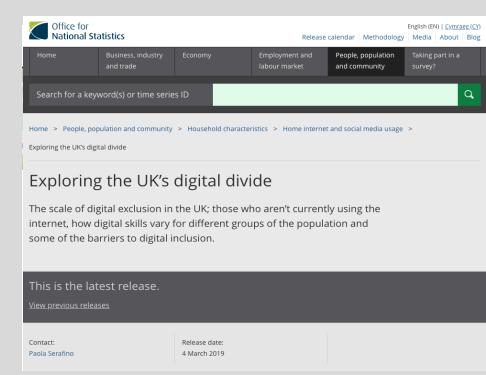
<https://inclusivedesignprinciples.org>

WebAIM million website review



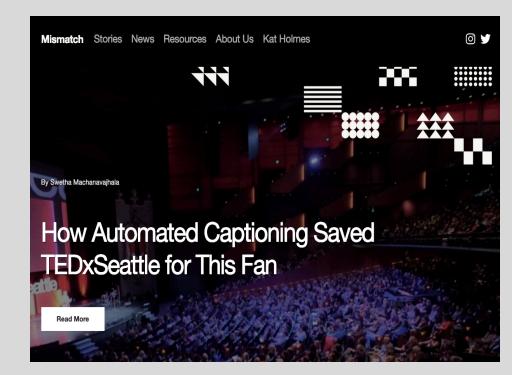
<https://webaim.org/projects/million>

Exploring the UK's digital divide



<https://www.ons.gov.uk/peoplepopulationandcommunity/householdcharacteristics/homeinternetsocialmediausage/articles/exploringtheuksdigitaldivide/2019-03-04>

MisMatch Design



<https://mismatch.design>



Assets.cms.gov

Reusable, responsive, 508 compliant framework for beautiful, usable, rapid, and scalable deployment

[DOWNLOAD ASSETS](#) (ZIP file - 102 MB)

[View the Getting Started Guide](#)

A Truly Accessible & Fully Responsive Framework

Assets is a cross-browser compatible, 508 compliant and responsive framework that can be used to kick-start your web project.

Inclusive Design Patterns

<https://assets.cms.gov/resources/framework/2.0/Pages/index.html>



Microsoft: respecting focus

<http://human.cx/media/1042/respecting-focus-a-behavior-guide-for-intelligent-systems.pdf>



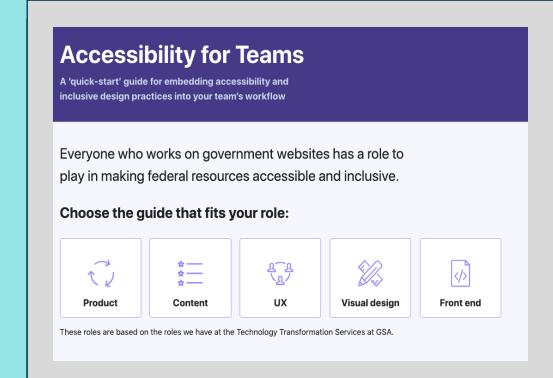
Inclusive Microsoft Design

March 2019

Micro

Microsoft: inclusive design toolkit

https://download.microsoft.com/download/b/0/d/b0d4bf87-09ce-4417-8f28-d60703d672ed/inclusive_toolkit_manual_final.pdf



Accessibility for Teams

A 'quick-start' guide for embedding accessibility and inclusive design practices into your team's workflow

Everyone who works on government websites has a role to play in making federal resources accessible and inclusive.

Choose the guide that fits your role:

[Product](#) [Content](#) [UX](#) [Visual design](#) [Front end](#)

These roles are based on the roles we have at the Technology Transformation Services at GSA.

Accessibility for Teams

<https://accessibility.digital.gov>



Thank you.

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Molly.watt@sigma.se - @Mollywatttalks