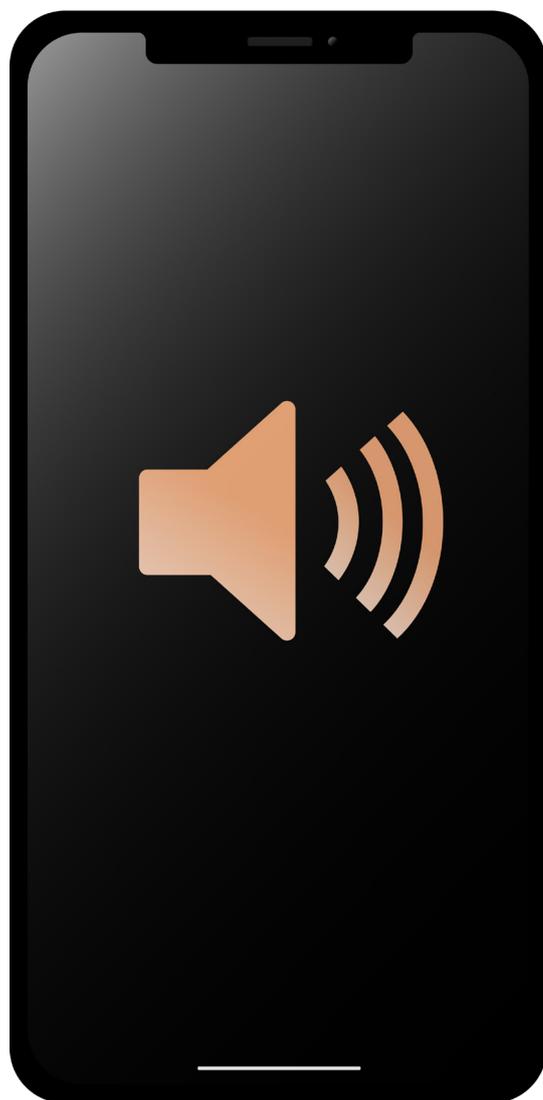


Accessibility Testing

The importance of **digital inclusivity**



The importance of digital accessibility in 2020 cannot be understated. Without a truly accessible website, companies risk severe legal and financial ramifications.

The coronavirus pandemic has brought the issue of digital accessibility to the fore. If vital information about COVID-19 is not made accessible, already vulnerable demographics of the UK population are put in real danger.

No wonder, then, that an option to “Request an accessible copy” was affixed to each of the 10 translations of [Boris Johnson’s letter to the nation](#) back in March. Large print and easy read versions were also provided.



What is digital accessibility?

Digital accessibility is the practice of ensuring everyone, irrespective of age, disability, or variations in hardware / software, can easily use the internet.

For example, certain users might be:

- Physically or mentally disabled
- Elderly
- Temporarily injured
- Subject to bandwidth restrictions
- Using a mobile phone or tablet

How is it assessed?

The [Web Content Accessibility Guidelines \(WCAG\)](#) set the international standards for digital accessibility, and are published by the World Wide Web Consortium’s [Web Accessibility Initiative \(WAI\)](#).

The WAI describes WCAG 2.0 and 2.1 as

“

[...] stable, referenceable technical standards. They have 12-13 guidelines that are organized under 4 principles: perceivable, operable, understandable, and robust. For each guideline, there are testable success criteria, which are at three levels: A, AA, and AAA.

”

These four principles – [perceivable](#), [operable](#), [understandable](#), and [robust](#) – can be summarised as follows:

Perceivable

Text is readable and the page is uncluttered. Where appropriate, text alternatives are provided for media content, such as alt text for images, or accurate transcripts, captions, and audio description for audio / video files.

Operable

The site is easily navigable and can be accessed using a range of assistive technologies, such as screen readers, screen magnifiers, and text-to-speech software.

Keyboard-only functionality is ensured. Page elements do not disappear abruptly, giving older users, for instance, enough time to interact with them. Elements also do not move around rapidly or blink; doing so can cause issues for users with ADD or photosensitive epilepsy, respectively.

Understandable

Text is written in simple language and is easily translatable. Users are clearly notified about any errors they have made when filling out a form.

Robust

Site content is made compatible with existing and future technologies.

Why is accessibility important?

Digital accessibility is fast becoming a legal requirement for public sector organisations based in the UK.

It is [currently illegal](#) for UK public sector organisations to operate if they published a website before 23 September 2018 that does not

1. Meet [WCAG 2.1 AA](#)
2. Have an accompanying statement explaining its level of accessibility

By 23 June 2021, the same rules will apply to pre-2018 public sector apps.

Outside of the UK, the EU has required all public sector websites hosted in a member state to adhere to the [2016 Web Accessibility Directive](#) – equivalent to WCAG 2.0 AA – since September 2018.

In the US, government websites must comply with [Section 508](#) of the Rehabilitation Act of 1973, which was revised to include WCAG 2.0 AA in 2017. More broadly, in September 2010 the US Department of Justice published the [Americans with Disabilities Act \(ADA\) Standards for Accessible Design](#), which apply to sites created by “public accommodations” (e.g. shops, restaurants, museums).

Digital accessibility regulations are already affecting private sector organisations in countries like [Canada](#) and [Norway](#). In the former, the Accessibility for Ontarians with Disabilities Act (AODA) stipulates that all websites published by private companies with more than 50 employees must be compliant with WCAG 2.0 AA by 1 January 2021.

Is digital accessibility valuable?

Even if we restrict our definition of digital accessibility to mean ensuring that disabled people can easily use the internet, the financial benefits of having an approved website are clear.

According to the ONS, [78% of disabled adults](#) in the UK – over 10 million people – used the internet in 2019.

In [The Click-Away Pound Report 2019](#), disabled internet users with access needs were asked about the quality of their online shopping experiences, to reveal how much revenue businesses were losing by failing to accommodate disabled shoppers. The survey found that 69% of users with access needs

“

[...] simply click-away when confronted with a problematic website. These figures equated to a click-away figure in the UK of £17.1 billion lost in 2019 from those sites which are not accessible to customers with disabilities.

”

In answer to the above question: yes, digital accessibility is valuable.

In addition, while Google has [never actually admitted](#) that they use accessibility as an SEO ranking factor, it may as well be. Accessible sites are often extremely intuitive and user-friendly; these qualities alone can help boost your company's online reputation.

The mobile market

Perhaps the most commercially significant reason for working towards digital accessibility is that an ever-increasing number of people are accessing the internet via a mobile phone.

In 2019, [88% of UK adults](#) owned or had access to a smartphone – exactly 10% more than had access to a laptop. What's more, a staggering 95% of them used their smartphone on a daily basis.

In addition, [an article published](#) in The New York Times earlier this year highlighted that accessibility features on mobile phone operating systems are not only useful for disabled people, but for all users. In a sense, there is a lot of crossover between digital accessibility and user experience design. Achieving a high level of mobile accessibility in your website or app will therefore please those users who are simply looking for an additional level of device customisation.

The need for responsive web design is consequently an urgent one. If mobile accessibility is not ensured, companies risk losing out on a sizable amount of business.

Luckily for companies that have only just started to think about digital accessibility, mobile accessibility is covered in the [existing WCAG standards](#).

These standards accommodate users accessing the internet with their mobiles, as well as other small screen devices such as smart watches, sat navs, and aircraft seat TV screens.

How we can help

Prolifics Testing offers clients an efficient and affordable [Accessibility Testing](#) service.

There are three stages to our testing process:

1. Planning
2. Automated and Manual testing
3. Analysis and reporting

The first stage involves establishing the limits of test scope (i.e. the number and nature of linked pages to be checked).

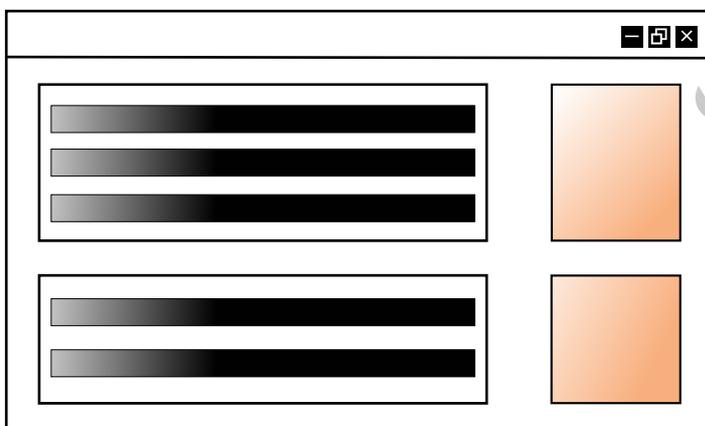
An important part of planning is to identify the common elements of each page. Most sites are structured using a common framework and stylesheet, meaning that their common elements need only be tested once.

This accelerates the testing process by helping us to target those elements that differ from page to page. It also helps to make our reports more readable and succinct.

Here are some examples of what we look at when assessing a site:

- Page Structure (tables, headings, common elements, styles)
- Non-text Content (images, buttons, form buttons, frames, iframes)
- Time-based media (whether audio / video is present)
- Are there any time limits on page functionality (carousels, authentication time out)?
- Is some content on the pages shown on mouseover (:hover, :focus, :active pseudo-classes)?
- What level of compliance is to be audited against (WCAG 2.1 A / AA / AAA)?

Based on our findings, we then produce a list of manual checks to be carried out alongside the automated tests.



The second stage is to perform the actual tests. We use a range of testing tools to detect initial site problems, ensuring results are thorough and consistent.

Once the automated testing has concluded, the results are checked and manually cross-referenced, before being included in the report.

The team then performs the manual tests identified earlier, using assistive technologies such as screen readers, visual impairment simulator software, or a mouse-less set-up, to replicate the actual user experience for disabled people.

The complete set of test results, together with links back to the WCAG standards, will then be provided to you. Most of our clients aim for WCAG 2.1 AA.

The final stage involves working with you to act on any issues found. Having provided a comprehensive report of the results, we will work with your developers to fix the issues, enabling you to feel confident about your website or application.

Bibliography

“2010 ADA Standards for Accessible Design”, ADA.gov, September 2010: https://www.ada.gov/regs2010/2010A-DASStandards/2010ADASStandards_prt.pdf

“Complying with AODA WCAG 2.0 Distinguishable Content”, AODA, June 2018: <https://www.aoda.ca/complying-with-aoda-wcag-2-0-distinguishable-content/>

“Global Mobile Consumer Survey: UK cut”, Deloitte, 2019: <https://www2.deloitte.com/uk/en/pages/technology-media-and-telecommunications/articles/mobile-consumer.html>

“About us”, Digitaliseringsdirektoratet, updated June 2020: <https://uu.difi.no/om-oss/english>

“The Click-Away Pound Report 2019”, Freeney Williams Ltd, February 2020: <http://www.clickawaypound.com/>

“Accessibility”, Google: <https://www.google.co.uk/accessibility/>

“PM letter to nation on coronavirus”, gov.uk, updated April 2020: <https://www.gov.uk/government/publications/pm-letter-to-nation-on-coronavirus>

“Understanding accessibility requirements for public sector bodies”, gov.uk, updated June 2020: <https://www.gov.uk/guidance/accessibility-requirements-for-public-sector-websites-and-apps>

“I won’t say never [...]”, John Mueller – Webmaster Trends Analyst at Google (@JohnMu), April 2020: <https://twitter.com/JohnMu/status/1246348308676837381>

“Why digital accessibility is non-negotiable while we deal with COVID-19”, Microsoft News Center India, May 2020: <https://news.microsoft.com/en-in/digital-accessibility-covid-19-shriram-parthasarathy/>

“Why Your Phone’s Accessibility Options Are Useful for Everyone”, The New York Times, March 2020: <https://www.nytimes.com/2020/03/24/smarter-living/phone-accessibility-functions.html>

“Directive (EU) 2016/2102 of the European Parliament and of the Council of 26 October 2016 on the accessibility of the websites and mobile applications of public sector bodies”, Official Journal of the European Union, updated December 2016: <https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32016L2102>

“Internet users, UK: 2019”, ONS, May 2019: <https://www.ons.gov.uk/businessindustryandtrade/itandinternetindustry/bulletins/internetusers/2019>

Bibliography

"Impact of Covid-19 #3", Research Institute for Disabled Consumers (RiDC), June 2020: <https://www.ridc.org.uk/covid-19-studies/covid-19-our-third-survey-impact-disabled-and-older-people> (requires download)

"IT Accessibility Laws and Policies", Section508.gov, updated July 2020: <https://www.section508.gov/manage/laws-and-policies>

"The Disability Perception Gap report", Scope, May 2018: <https://www.scope.org.uk/campaigns/disability-perception-gap/> (requires download)

"Web Content Accessibility Guidelines (WCAG) 2.1", World Wide Web Consortium (W3C), updated June 2018: <https://www.w3.org/TR/WCAG21/>

"Introduction to Understanding WCAG 2.1", WAI, updated July 2020: <https://www.w3.org/WAI/WCAG21/Understanding/intro#understanding-the-four-principles-of-accessibility>

"Mobile Accessibility at W3C", WAI, updated March 2019: <https://www.w3.org/WAI/standards-guidelines/mobile/>

"Web Content Accessibility Guidelines (WCAG) Overview", WAI, updated September 2020: <https://www.w3.org/WAI/standards-guidelines/wcag/>

For a wealth of online resources about digital accessibility, see "The Business Case for Digital Accessibility: Annotated Bibliography", WAI, November 2018: <https://www.w3.org/WAI/business-case/bibliography/>

About us

Prolifics Testing is a specialist IT consultancy with a total focus on software testing. We deliver high-quality, flexible software QA and testing services to industry giants like McKesson, Deloitte and Lloyds Banking Group.

If you'd like to find out more about any of our services, feel free to [contact us](#) via our website.

Alternatively, you can drop us a quick call on +44 (0) 20 8905 2761.
