

De-mystifying accessibility in development

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It is Global Accessibility Awareness Day (GAAD) Tomorrow

The 12th Global Accessibility Awareness
Day (GAAD)!

The purpose of **GAAD** is to get everyone talking, thinking and learning about digital access and inclusion.

I hope you can use the information you will be learning today to expand your accessibility efforts internally within your organisations.

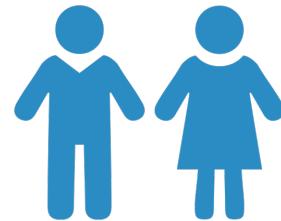
I will be sharing:

- What is digital accessibility?
- How to establish consistent development practices to deliver experiences that delight users of all abilities.
- How to drive progress in accessibility at the company you work for

What is Web accessibility, or eAccessibility?

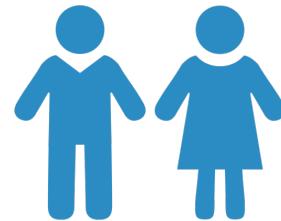
Web accessibility, or eAccessibility, is the inclusive practice of ensuring there are no barriers that prevent interaction with, or access to, websites, products or services on the World Wide Web by people with physical disabilities, situational disabilities, and socio-economic restrictions.

Every user deserves a first-rate digital experience on the web



1 Billion People Worldwide Have Disabilities

- Visual
- Hearing
- Motor
- Cognitive



At least 1 in 5 people in the UK have a long term illness, impairment or disability. Many more have a temporary disability.



From both a civil rights and a business perspective, people with disabilities are underserved by today's digital products.

Equality Act 2010 - We have a legal obligation to provide equal access to people with disabilities

Some of the common accessibility problems include:

- **websites that are not easy to use on a mobile**
- **website that cannot be navigated using a keyboard**
- **inaccessible PDF forms that cannot be read out on screen readers**
- **poor colour contrast that makes text difficult to read - especially for visually impaired people.**

The goal of accessibility is access for all

There are 16 million disabled people in the UK.

- 11% of children are disabled
- 23% of working age adults are disabled
- 45% of pension age adults are disabled

Source: Family Resources Survey (2021 to 2022)

- 5 million disabled people are in work.
- The employment rate of disabled people is 53%. Compared to 82% of non-disabled people.
- Disabled people are almost twice as likely to be unemployed as non-disabled people, and 3 times as likely to be economically inactive.

How can we deliver
inclusive digital
experiences for all?.



Government Digital Service

Design Principles

- 1 Start with user needs
- 2 Do less
- 3 Design with data
- 4 Do the hard work to make it simple
- 5 Iterate. Then iterate again.
- 6 This is for everyone
- 7 Understand context
- 8 Build digital services, not websites
- 9 Be consistent, not uniform
- 10 Make things open: it makes things better

1 Start with user needs

Do user research and usability testing

User research helps teams learn about users and create websites, products or services that meet their needs.

Without it, you will not know what problems you're trying to solve, what to build or if the website, product or service you create will work well for users.

To deliver a digital experience that meets your users' needs, you have to understand:

- who your likely users are
- what they're trying to do
- how they're trying to do it now
- how their life or work influences what they do and how
- how they use and experience existing websites, products or services

The better you understand your users, the more likely you are to design and build a service that works well for them.

Accessibility regulations

Website accessibility is not just a nice to have, in the UK, The Equality Act (2010) and The Public Sector Bodies (Websites and Mobile Applications) (No. 2) Accessibility Regulations 2018 means it's a legal requirement for both public and private sector organization.

The Public Sector Bodies (Websites and Mobile Applications) (No. 2) Accessibility Regulations 2018 mean that public sector organisations have a legal duty to make their websites and mobile apps accessible by making them:

- **Perceivable**
- **Operable**
- **Understandable**
- **Robust**.

While different countries have different laws for accessibility, many including the UK base their legislation on the international golden standard for web accessibility, the Web Content Accessibility Guidelines (WCAG).

The Web Content Accessibility Guidelines (WCAG).

WCAG's four principles

Perceivable: All users should be able to accurately see and read your website content. That means content must not exclude people with vision loss, hearing loss and other disabilities.

Operable: Website content should be responsive and simple to navigate for all users, for example, using keyboard only commands to navigate a website rather than a mouse.

Understandable: Website interfaces and information should be organized in a way that makes them easy to use, predictable to navigate and contain language that is understandable to all users.

Robust: Websites should be compatible with a wide range of technology, including assistive technology tools that are commonly used by users with disabilities.

WCAG also outlines specific technical standards to measure a website's level of accessibility. These standards are split into three levels (A, AA and AAA, with level A being the minimum level of accessibility).

There are also different versions of WCAG, with WCAG 2.1 being the most current edition and WCAG 2.2 due to be released soon.

How can you drive progress in accessibility at the company you work for?

Understanding disabilities and impairments

- In order to create inclusive digital experience for all, we need to understand the sorts of barriers some users face when they use digital services.
- Create accessibility user profiles to highlight common barriers faced by people with particular conditions and provide tips on how to design for them.
- These user profiles can then be used by teams (user researchers, designers and developers) to create services that are accessible to all.

Source: <https://www.gov.uk/government/publications/understanding-disabilities-and-impairments-user-profiles>

Simone: dyslexic user

" My spelling's bad and forms take me ages to fill in, but I have to get things right in my job and the software I use helps me a lot."

Simone is 41 and lives with her husband and their 2 sons in Brentford. She works as an office manager for Brentford council, and likes walking her dog in her spare time.

She was diagnosed with dyslexia 2 years ago. She doesn't mind people knowing she's dyslexic, but she doesn't really talk about it.

Devices and technology

Simone uses specialist dyslexia software which reads out documents and web pages for her, and helps her read and spell.

The software helps her feel more confident about her writing, but she still asks a colleague to check important emails she's sending, just in case. The colour highlighting feature helps her mark the important bits when there's a lot of writing.

She uses a smartphone to make calls, and a tablet for audiobooks and checking social media. She occasionally buys things online.

Goals and wishes

Simone wants to feel more confident using technology - she finds it difficult to learn anything new, and she doesn't like asking for help (although her family and work colleagues are always supportive).

She makes crochet toys for children and would like to sell them online, but she doesn't know where to start.

Designing for users with dyslexia



Do...

use images and diagrams to support text



align text to the left and keep a consistent layout



consider producing materials in other formats (for example audio or video)



keep content short, clear and simple



let users change the contrast between background and text



Don't...

use large blocks of heavy text



underline words, use italics or write in capitals

DON'T DO THIS

force users to remember things from previous pages - give reminders and prompts



rely on accurate spelling - use autocorrect or provide suggestions

dyslexia ✕
dsyle |

put too much information in one place



Designing for users on the autistic spectrum



Do...

use simple colours



write in plain language

Do this

use simple sentences and bullets



make buttons descriptive

Attach files

build simple and consistent layouts



Don't...

use bright contrasting colours



use figures of speech and idioms



create a wall of text



make buttons vague and unpredictable

Click here!

build complex and cluttered layouts



Designing for users with physical or motor disabilities

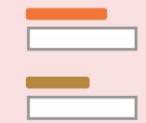


Do...

make large clickable actions



give clickable elements space



design for keyboard or speech only use



design with mobile and touchscreen in mind



provide shortcuts



Don't...

demand precision



bunch interactions together



make dynamic content that requires a lot of mouse movement



have short time out windows



tire users with lots of typing and scrolling



Designing for users of screen readers



Do...

describe images and provide transcripts for video

<alt>

follow a linear logical layout



structure content using HTML5

<h1>
<nav>
<label>

build for keyboard use only



write descriptive links and headings

[Contact us](#)

Don't...

only show information in an image or video



spread content all over a page



rely on text size and placement for structure

36pt, bold


force mouse or screen use



write uninformative links and headings

[Click here](#)

Designing for users with low vision



Do...

use good colour contrasts and a readable font size

Aa

publish all information on web pages



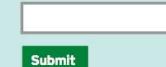
use a combination of colour, shapes and text

Start

follow a linear, logical layout



put buttons and notifications in context



Don't...

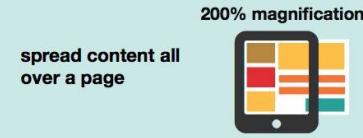
use low colour contrasts and small font size

Aa

bury information in downloads



only use colour to convey meaning



spread content all over a page



separate actions from their context



Designing for users with anxiety

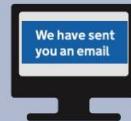


Do...

give users enough time to complete an action



explain what will happen after completing a service



make important information clear



give users the support they need to complete a service



let users check their answers before they submit them



Don't...

rush users or set impractical time limits



leave users confused about next steps or timeframes



leave users uncertain about the consequences of their actions



make support or help hard to access



leave users questioning what answers they gave



Designing for users who are deaf or hard of hearing



Do...

write in plain language

Do this

use subtitles or provide transcripts for videos



use a linear, logical layout



break up content with sub-headings, images and videos



let users ask for their preferred communication support when booking appointments



Don't...

use complicated words or figures of speech



put content in audio or video only



make complex layouts and menus



make users read long blocks of content



make telephone the only means of contact for users



- Think about accessibility from the start
- Design for most users without modifications and easy adaptation to different users
- Design with a view to connect seamlessly to assistive technology
- Write accessibility acceptance criteria
- Your website, service or product needs to work with the technology that people use, so cross browser/device compatibility
- Make sure the frontend developers write HTML, CSS and JavaScript based on standards

- Building a resilient frontend using progressive enhancement
- Run an automated accessibility testing tool and perform manual checks
- Test your service with a range of assistive technologies and real users.
- Involve everyone. Designers, Developers, Content Designers, User Researchers, Quality Assurers/Testers, Service Managers, Product Managers and Delivery Managers, because accessibility is everyone's responsibility.
- Publishing information about your service's accessibility in an accessibility statement.
- Get an expert to audit the accessibility of your website, service or product.

Worth noting...

People may not have a choice when using a website or mobile app, so it's important they work for everyone.

Accessible websites usually work better for everyone. They are often faster, easier to use and appear higher in search engine rankings.

Measuring your website against WCAG compliance standards is a good indicator of whether your website would be considered accessible to disabled people in a court case.

Closing note

I hope you can use the information you've learned today to expand your accessibility efforts internally within your orgs.

You can access and contribute to my accessibility tooling list on [GitHub](https://github.com/FeyAgape/Accessibility) (<https://github.com/FeyAgape/Accessibility>) or scan the QR code on the right.



You can find me on social @feyagape