

# 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.

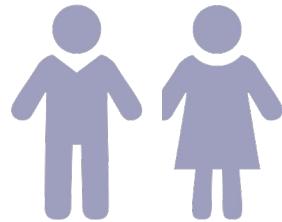
# I will be sharing:

- What is web accessibility?
- How to establish consistent 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?

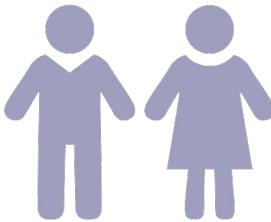
Web accessibility, or eAccessibility, is the inclusive practice of ensuring there are no barriers that prevent interaction with, or access to, websites, products or services on the World Wide Web by people with physical disabilities, situational disabilities, and socio-economic restrictions.

# 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.



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
- 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.

*Source: Family Resources Survey (2021 to 2022)*

# 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.

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

- who your likely users are
- what they are trying to do
- how they are 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

# Accessibility regulations

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.**

# 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?**

# Understand 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 the web.
- 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 websites, products or 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



put too much information in one place



# Designing for users on the autistic spectrum



**Do...**

use simple colours



write in plain language

**Do this**

**Don't...**

use bright contrasting colours



use figures of speech and idioms



use simple sentences and bullets



make buttons descriptive

Attach files

create a wall of text



build simple and consistent layouts



make buttons vague and unpredictable



Click here!

# Designing for users with physical or motor disabilities

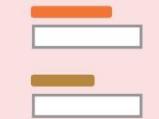


**Do...**

make large clickable actions



give clickable elements space



design for keyboard or speech only use



provide shortcuts



Postcode



Address



**Don't...**

demand precision



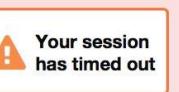
bunch interactions together



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

200% magnification  
spread content all over a page



200% magnification  
separate actions from their context

## 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 complicated words or figures of speech



use a linear, logical layout



make complex layouts and menus



break up content with sub-headings, images and videos



make users read long blocks of content



let users ask for their preferred communication support when booking appointments



make telephone the only means of contact for users



### Don't...



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



## 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



- Thinking 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

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



This slide is also available to download at the QR code below



Thanks  
Fey Ijaware  
@feyagape