

Making digital products accessible to everyone

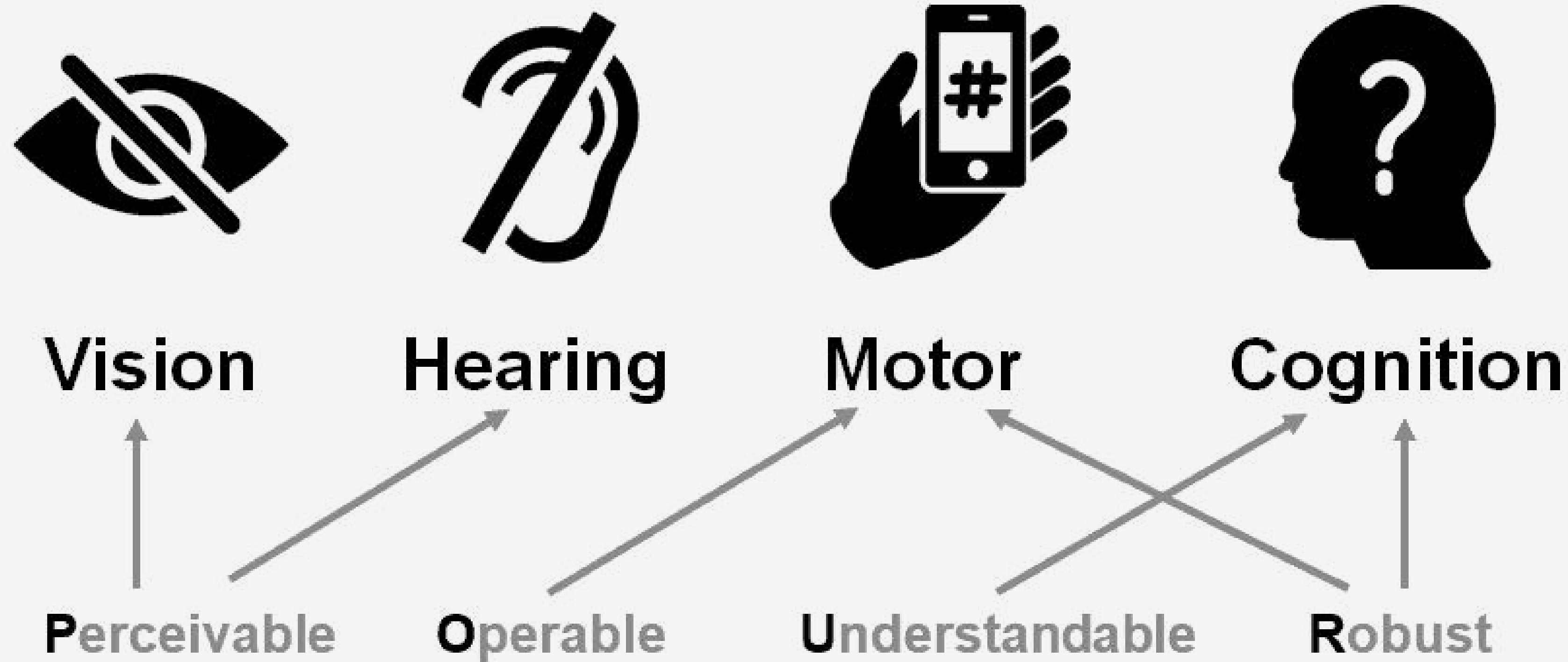


Jonas Fuchs



What is accessibility

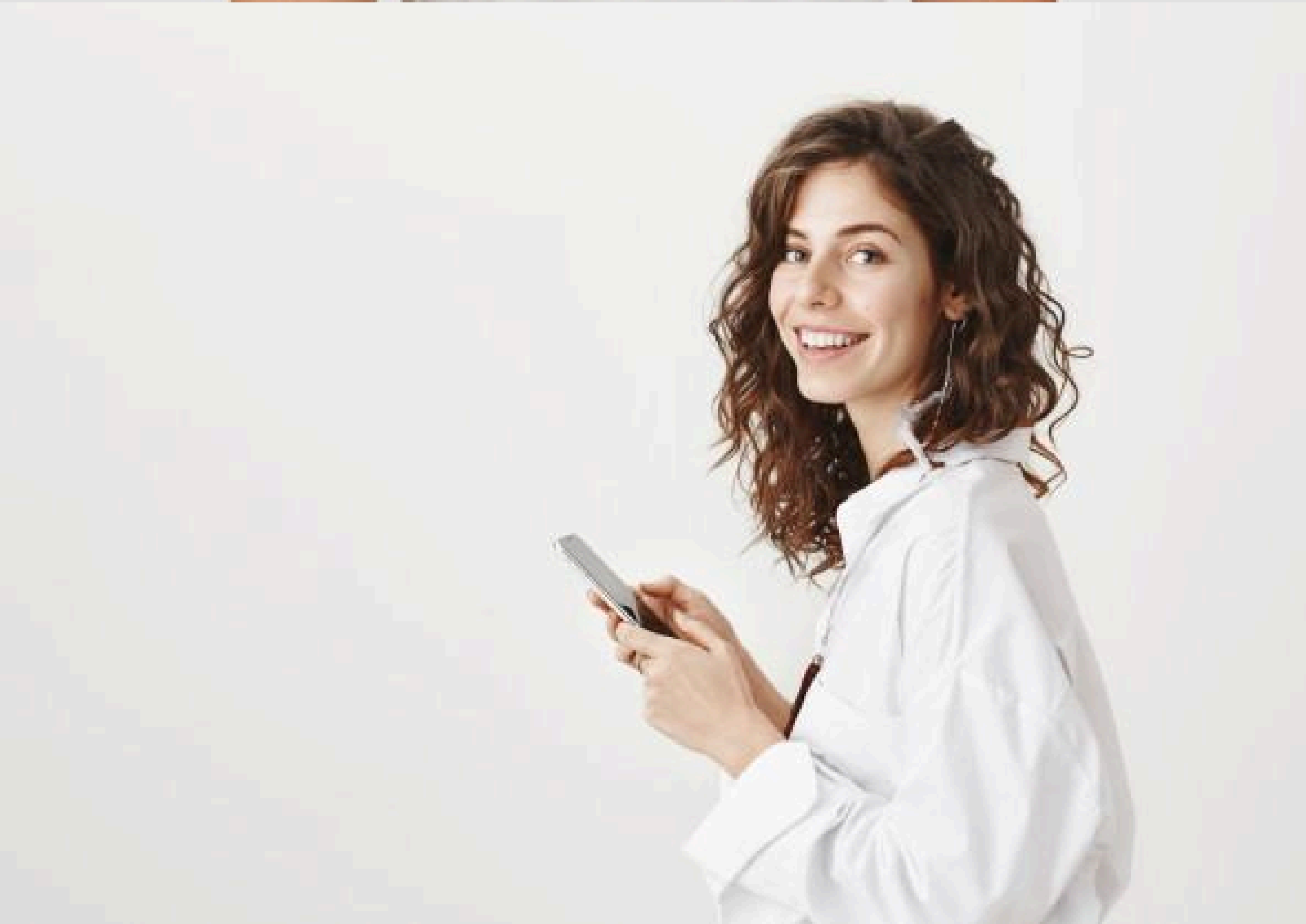
and why should think more inclusive?



- Is **everyone** able to perceive content?
- Can all functions of our website be **performed with a keyboard**?
- Is all of the text on our website **clearly written**?
- Does our website **only support the newest** browsers?

Accessibility

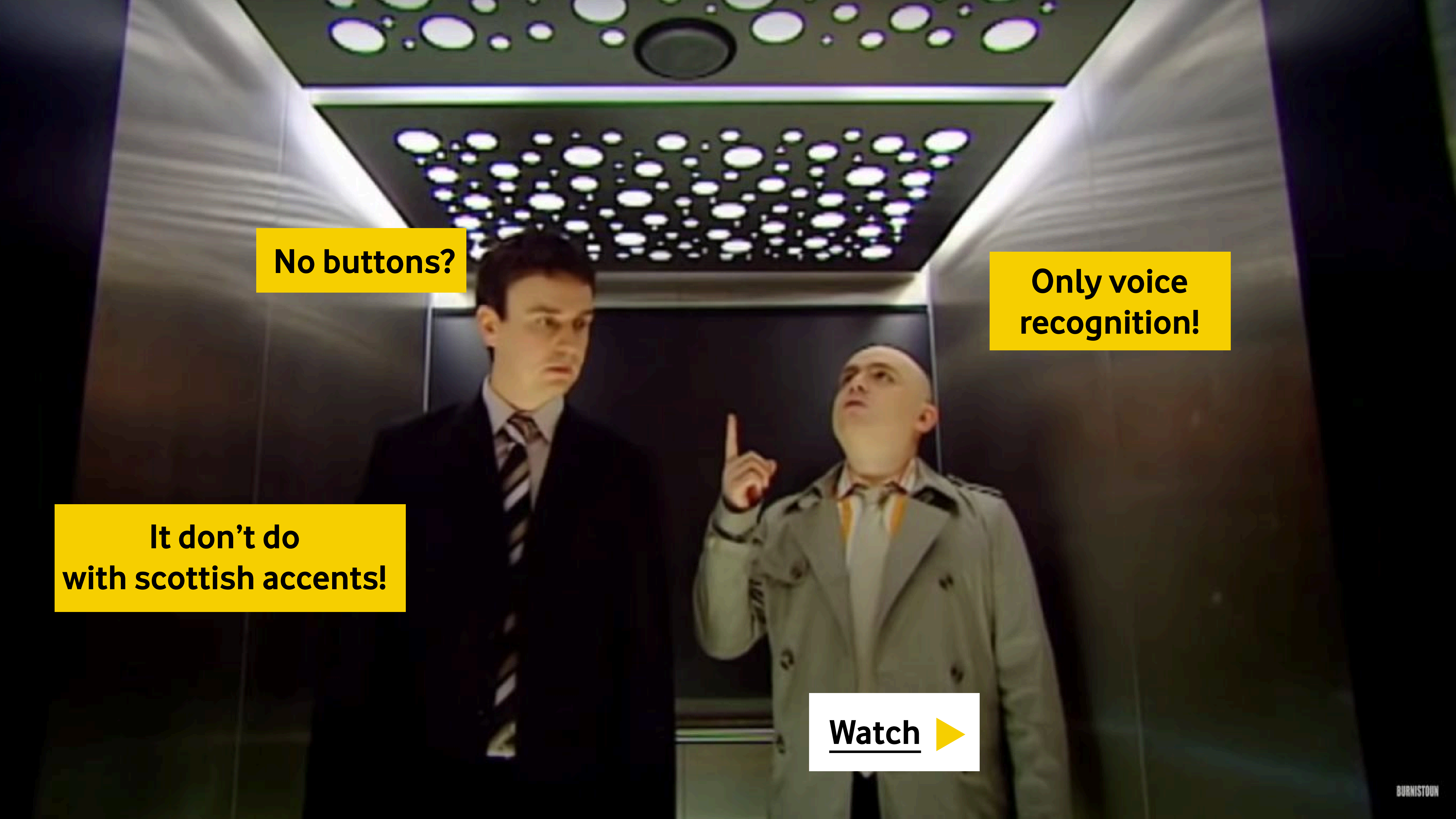
What picture do you have now in mind?



?





A scene from a video showing two men in an elevator. The man on the left is wearing a dark suit and tie, looking concerned. The man on the right is wearing a light-colored trench coat and is pointing his index finger upwards. The ceiling of the elevator is dark with many small, glowing circular lights. The walls are dark and reflective.

No buttons?

**Only voice
recognition!**

**It don't do
with scottish accents!**

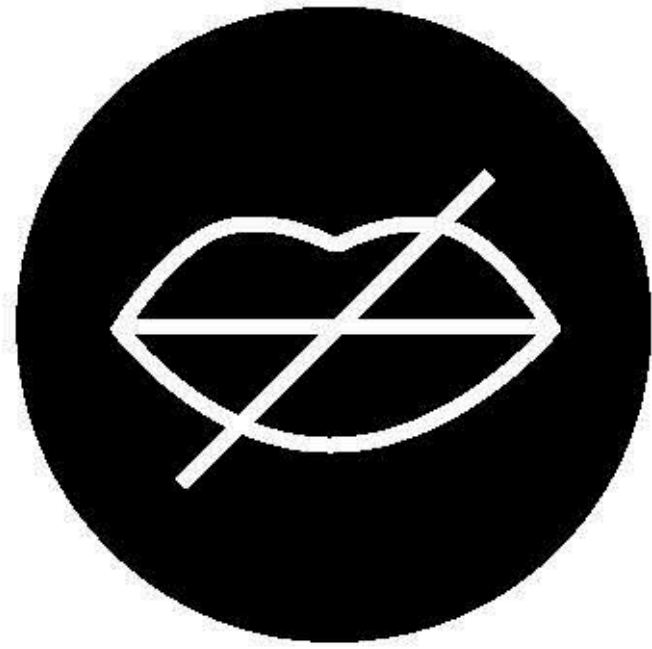
Watch ▶

“We are all just temporarily abled.”

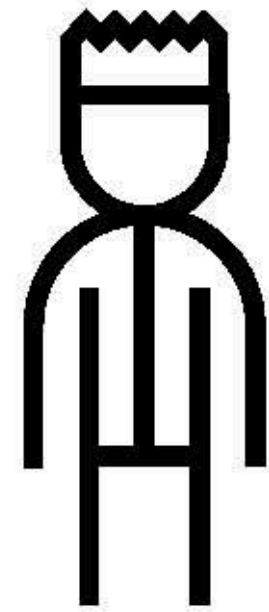
– Cindy Li

“Disabilities are a mismatch between one’s ability and one’s environment.”

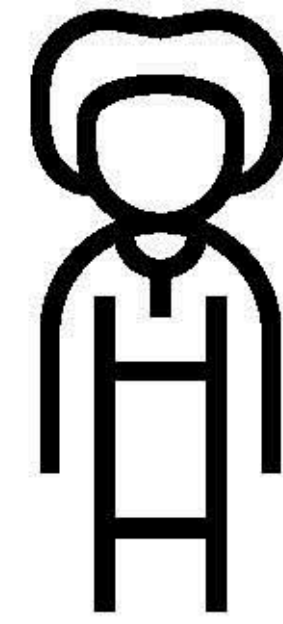
– unknown



Can't speak



Non-verbal



Laryngitis

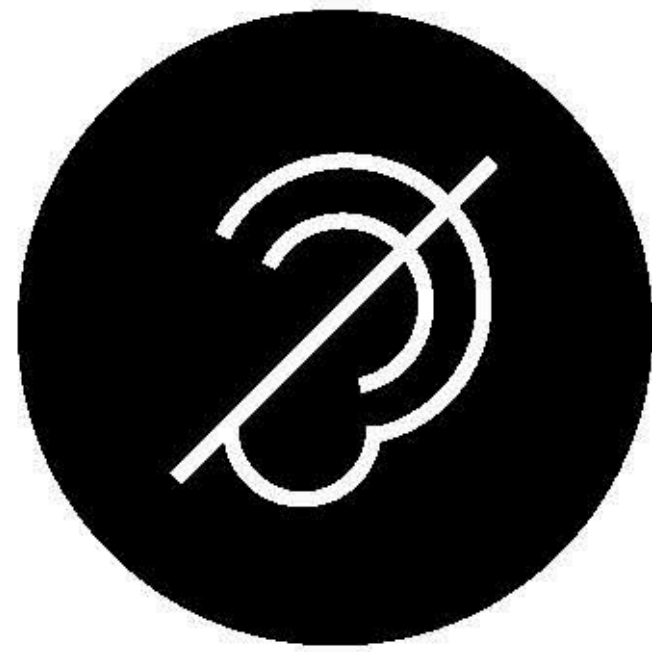


Heavy accent

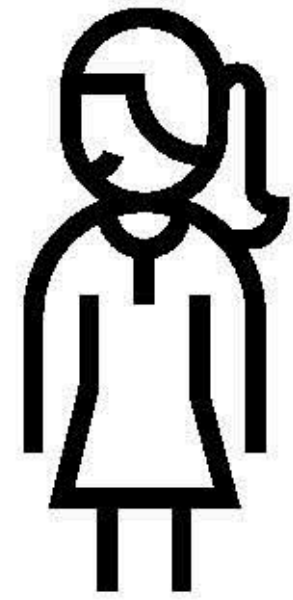
Permanent

Temporary

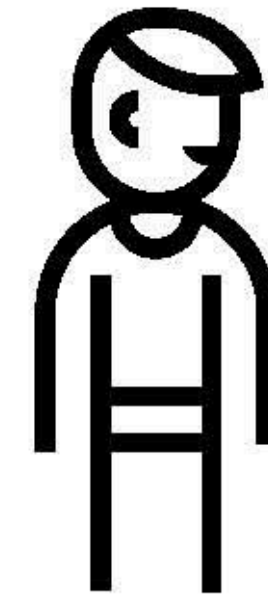
Situational



Can't hear



Deaf



Ear infection

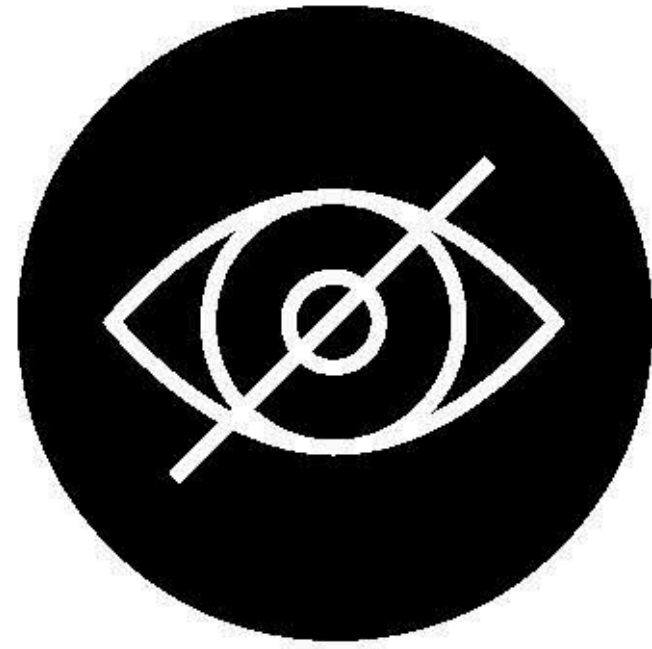


Bartender

Permanent

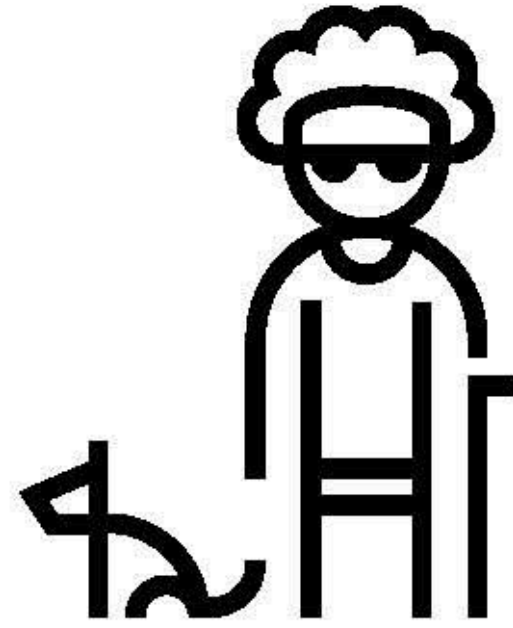
Temporary

Situational



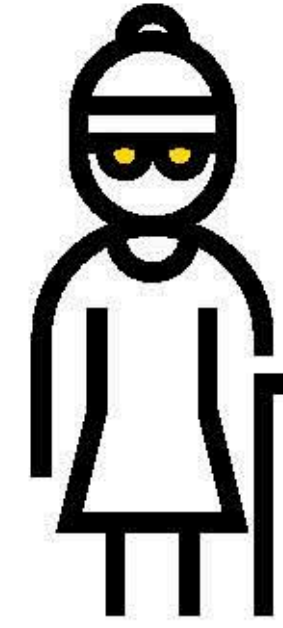
Can't see

Permanent



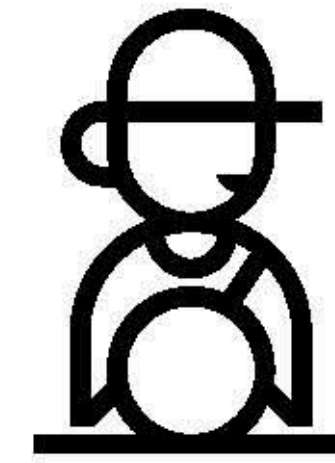
Blind

Temporary

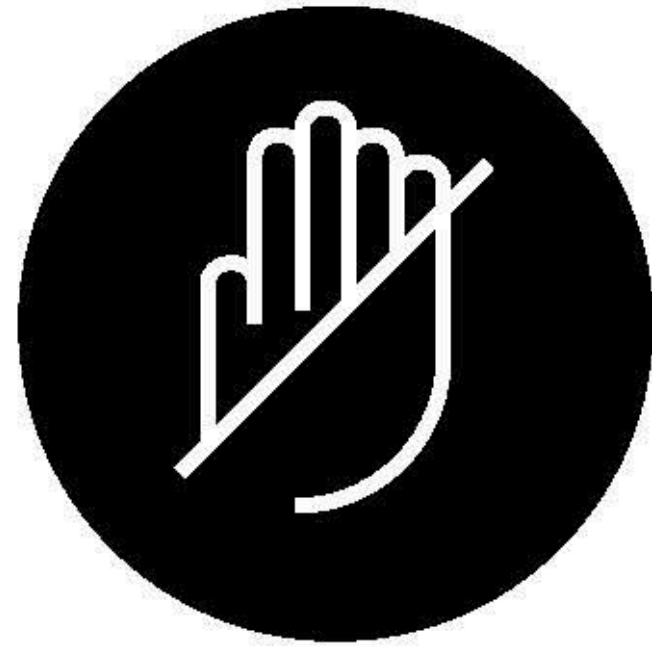


Cataract

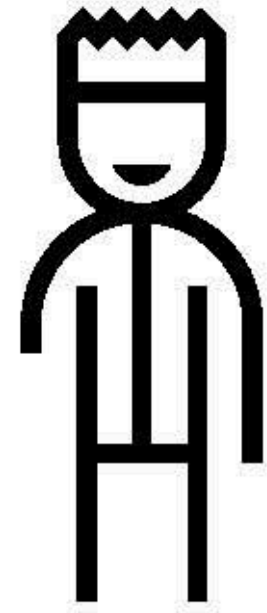
Situational



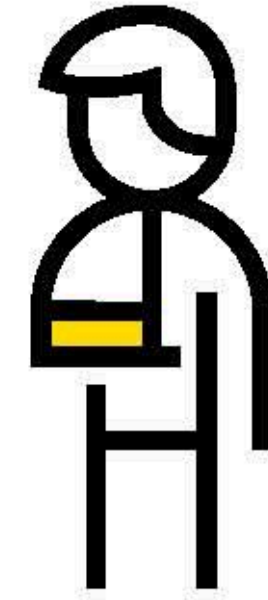
~~Distracted driver~~
traffic observant



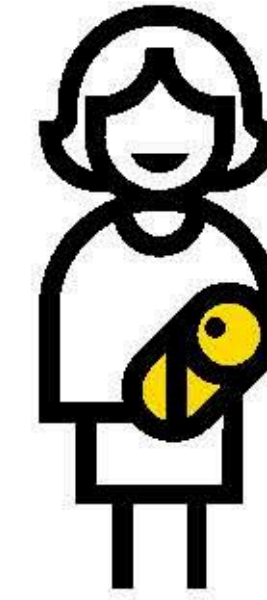
Can't touch



One arm



Arm injury



New parent

Permanent

Temporary

Situational



**“Approach accessibility as
a customer experience imperative,
not a compliance-driven initiative.”**

– Gina Bhawalkar

Why we should care to consider everyone

Legal requirements



The EU directive 2019/882 (European Accessibility Act) and its impact on e-commerce providers mid 2022 to 2025 at latest

“Nobody may be disadvantaged because of his disability.”

– Article 3 Grundgesetz Bundesrepublik Deutschland

Set a commitment for your motivation

Business cases for accessibility

Threat

legal

regulatory

ethical

- Challenge accessibility business cases against your business goals
- Define your spend

Opportunity

increase reach

increase sales

reduction of complaints

reduction of costs

brand reputation

increase visitor/user

creativity & innovation

6.9 billion US\$

inaccessible eCommerce retailers loose
annually in the US.

Source: [Deque/Home Depot \(Business Case For Accessibility\)](#)

Voices of our customers:

„Die Bilder sind
nichtssagend.
Lachende
Menschen, eine Uhr
... Bilder lassen nicht
auf den Inhalt
schließen.“

Thomas, 47, visually impaired

"Ich weiß nicht, ob
der Hintergrund
vielleicht rot ist?"
(zum schwarzen
Hintergrund)"

"auf diesem Bild
kann ich nichts
erkennen"

Hans-Werner, 67, color-blind

User Research

“GigaCube mit Plug
& Surf? Verstehe ich
nicht...”

"manchmal muss
ich Wörter 2 oder 3x
mal lesen um sie
verstehen,
insbesondere
längere Wörter"

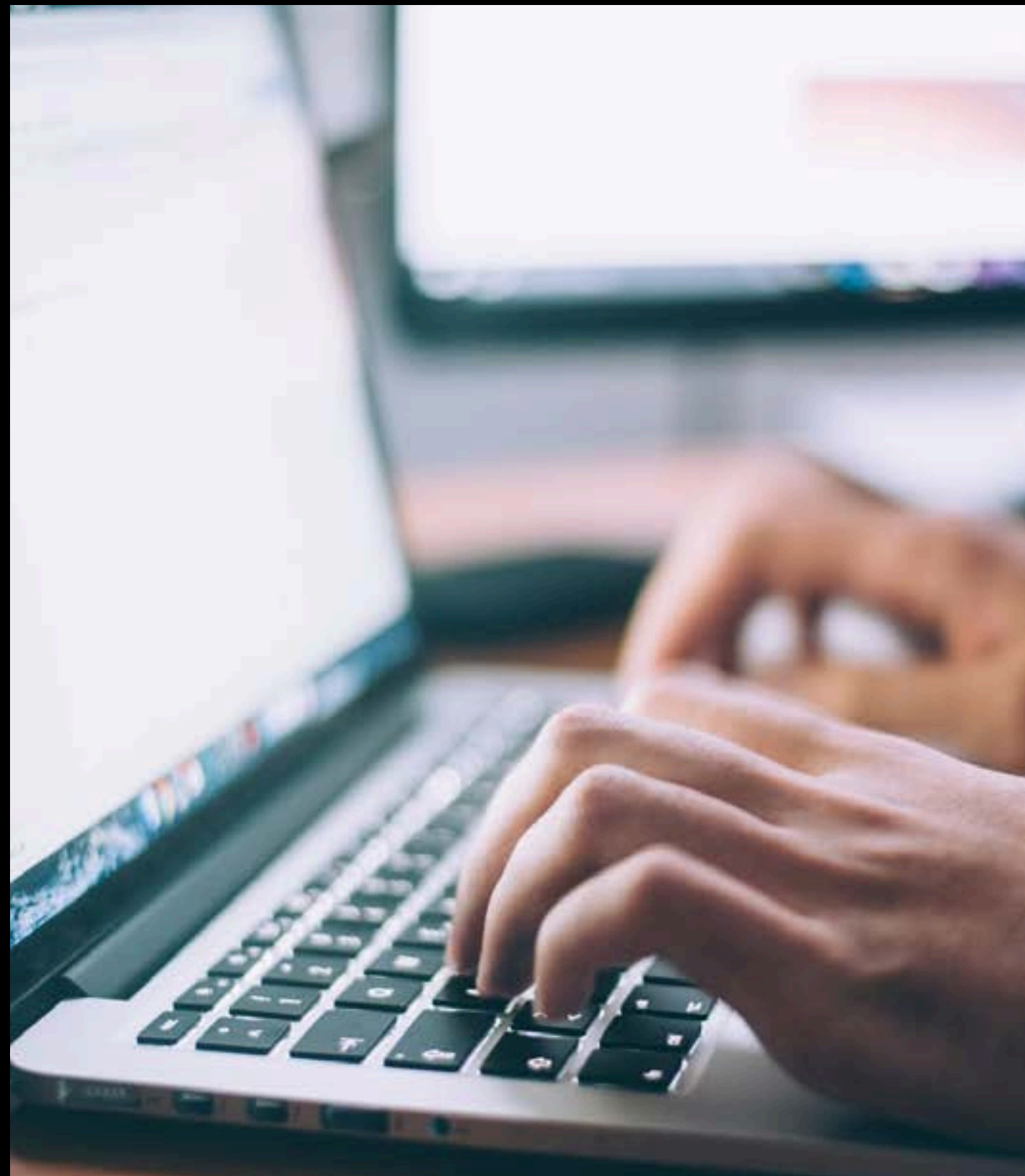
Toya, 32, cognitive impairment

Great places to start today

UX/UI



Content/Writing



Frontend Development



Voices of our customers:

Nanea: deaf

“Mein Anliegen ist ja die Barrierefreiheit mit einer Möglichkeit, Störungen auch online melden zu können. Das ist weder per Kontaktformular noch unter der von Dir genannten whatsapp-Nummer möglich. Bei dem whatsapp-chat schrieb der virtuelle Assi: "Dein Anliegen klären wir am besten telefonisch...."

Voices of our customers:

Nanea: deaf

“Wenn Du nicht hören kannst, hast Du Pech gehabt - macht mich noch immer fassungslos und ich denke, dass ich das als Kundin nicht verdient habe.”

Voices of our customers:

Anonym95419: deaf

**Die Antwort hilft mir sofern nicht weiter da ich weder bei facebook noch bei twitter angemeldet bin.
Außerdem kann es nicht sein, wenn man als hörbehinderter Mensch, der auf schriftliche Kommunikation angewiesen ist, tagelang auf eine Antwort warten muss, das ist diskriminierend.**

Individual cases?



8%

Only 8% of users with access needs will contact company if faced with website barriers in attempting a retail interaction

Source: [Click Away Pound Report](#)

86%

**Customers with accessibility needs
would spend more if websites were
more accessible**

Source: [Click Away Pound Report](#)

Barriers to accessibility

No clear ownership within the organisation

43%

A horizontal bar chart with a yellow segment representing 43% and a grey segment representing the remaining 57%.

Lacking the right people or skills

16%

A horizontal bar chart with a yellow segment representing 16% and a grey segment representing the remaining 84%.

Finding it hard to justify spend

11%

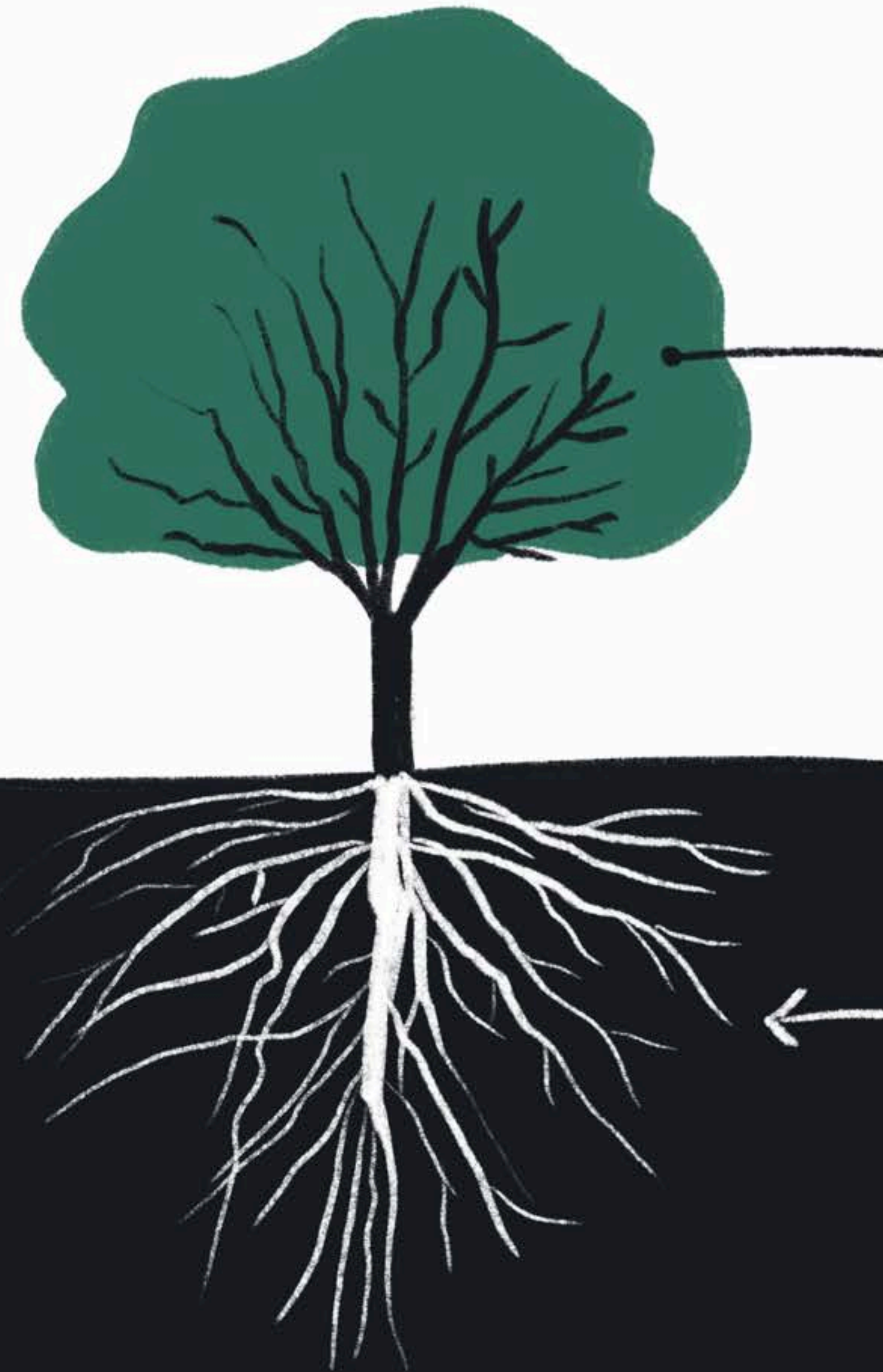
A horizontal bar chart with a yellow segment representing 11% and a grey segment representing the remaining 89%.

Source: [Inviga](#)



It starts with awareness

Why it is worth thinking outside the box



WHAT YOU'RE
FIXING

← THE REAL
PROBLEM

Essential for some, useful for all

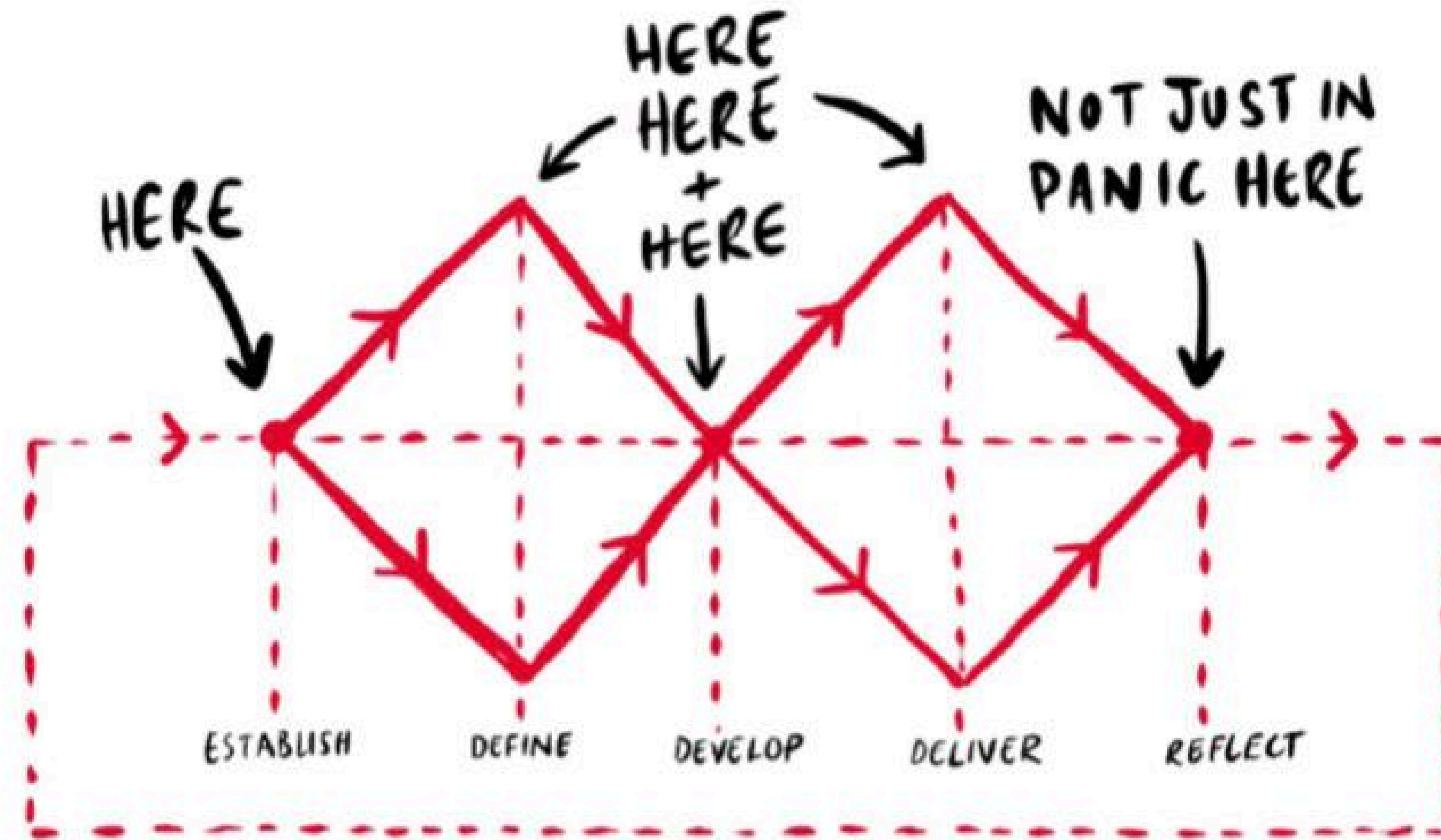
Curb-Cut-Effect: phenomenon of disability-friendly features being used and appreciated by a larger group than the people they were designed for.

Curb cuts: A wedge cut in an elevated curb allow smooth passage between sidewalk and street



- **Change colors, contrast level and fonts**
- **zoom in up to 200 %**
- **navigate website using just a keyboard**
- **navigate using speech recognition**
- **listen to the website with a screen reader**

Quick checks



Tash Willcocks

**WHEN TO CONSIDER
ACCESSIBILITY IN THE
DESIGN PROCESS**

Impacting roles in the Product Development Process

**Product
Owners**

**Business
Analysts**

**Product
Managers**

**Information
Architects**

**Visual
Designers**

**Frontend
Developers**

**Content
Editors**

Researchers

Testers

**Ensure communication
between disciplines**

A woman with long dark hair and glasses, wearing a white t-shirt and jeans, stands in a meeting room pointing at a wall covered with pink and yellow sticky notes. Several people are seated at a table in the foreground, looking towards her. The room has large windows on the left and a white brick wall. The image is dimmed to make the red text boxes stand out.

Enablement

Capabilities

**Competence &
Confidence**

Toolset

Time to seize opportunities



WHAT IF...

**What if our digital assistant
enables people with disabilities
to sign contracts by their own?**

Watch ▶

Leader or follower?

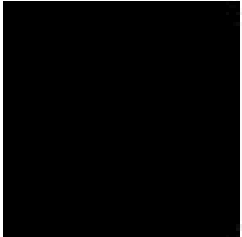
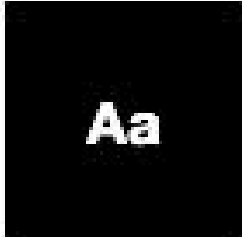
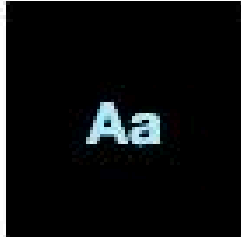
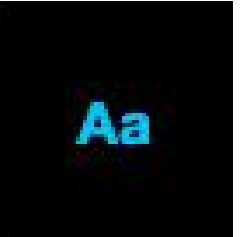
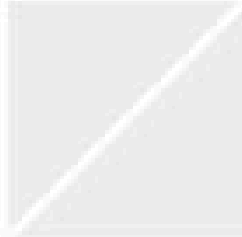
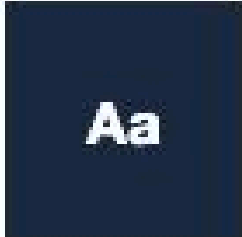
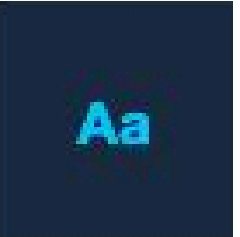
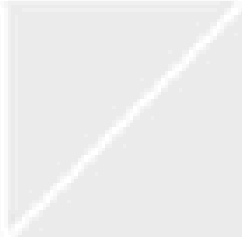
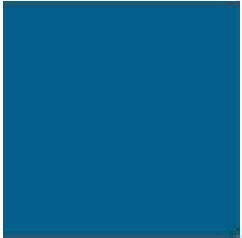
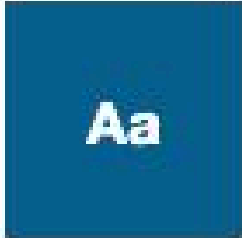
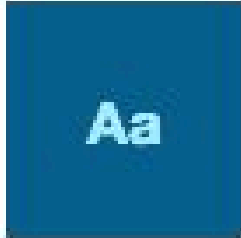
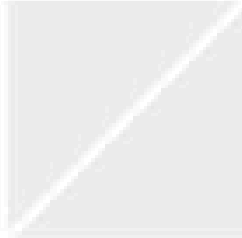
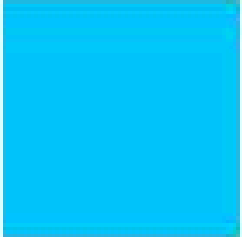
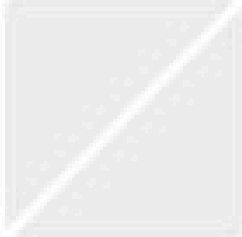
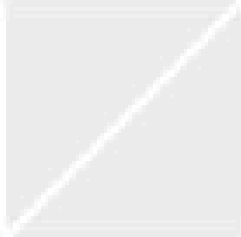
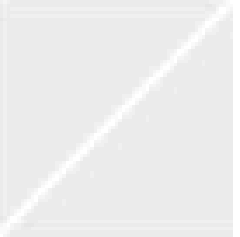
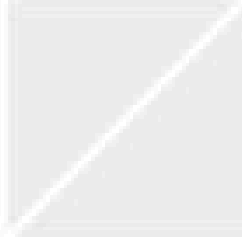
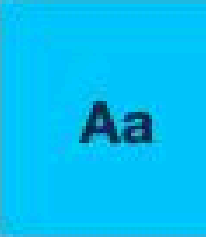
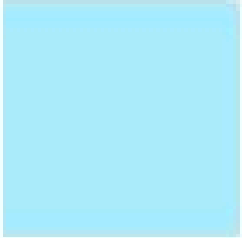
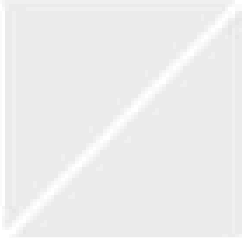
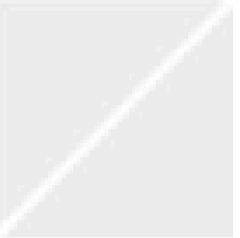
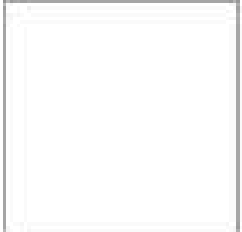
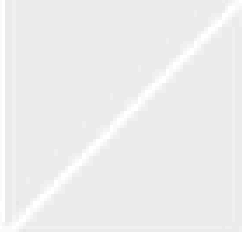
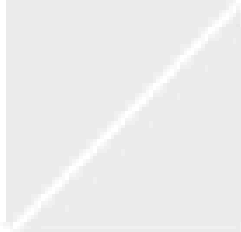
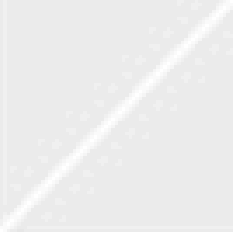
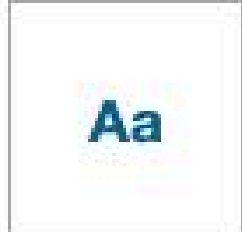
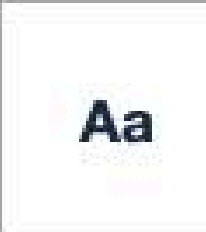
**Are you able
to read this?**

Can you stand
reading this?

Accessible color combinations



Please don't use these color combinations; they do not meet a color contrast ratio of 4.5:1, so they do not conform with the standards of Section 508 for body text. This have difficulty reading the text. Employing accessibility best practices improves the user experience for all users.

	White text #FFFFFF Aa	Light text #B3EFFF Aa	Bright text #00CFFF Aa	Medium text #046B99 Aa	Dark text #1C304A Aa
 Black background #000000					
 Dark background #1C304A					
 Medium background #046B99					
 Bright background #00CFFF					
 Light background #B3EFFF					
 White background #FFFFFF					

Accessible color palette builder

[Link](#)

Contrast?

Label

Contrast!

Label

That's an error!

Label

Normal vision

Is that an error?

Label

Deuteranopia (simulated)

Don't rely on colour as sole information

Label



descriptive error message