

Digital inclusion: designing for everyone

 @littlehelli

Hi! I'm Helen

UX consultant

User researcher

Diversity & Inclusion champion

Women in Tech Nottingham
& Tech Nottingham organiser

Hot yoga lover

“bjss * SPARCK



Keith Stoeckeler 🍔

@keiths

VP/GD Digital at @MKTG (it's stek*ler) // sports + interweb. burger addict. dog advocate. #airportliving ambassador. university advisor. (tweets = last 60-days)

📍 CT / NYC

🌐 keithstoeckeler.com

📅 Joined February 2009



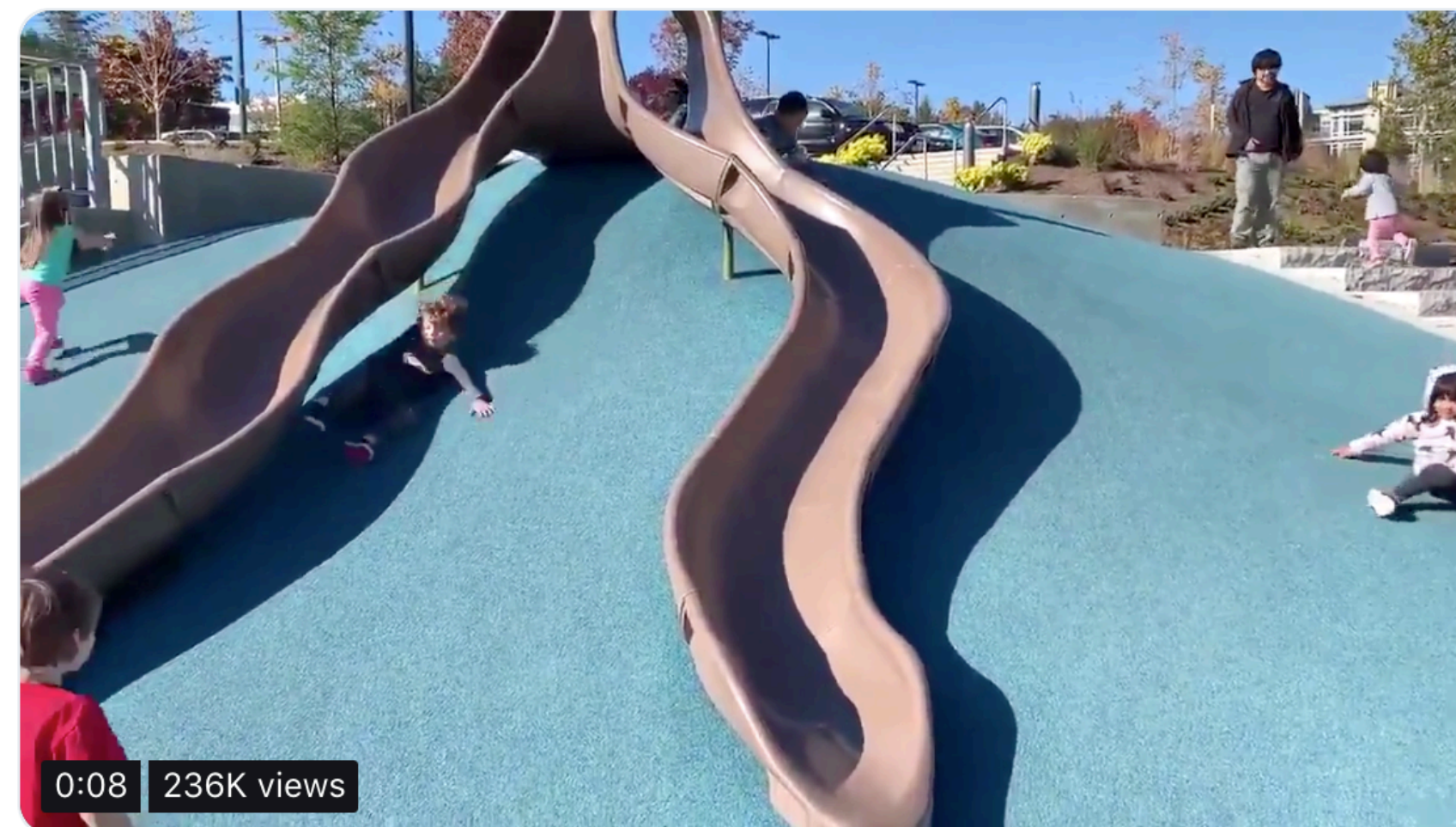
Keith Stoeckeler 🍔

@keiths

Follow



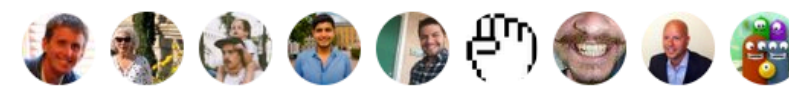
“We know our users/customers”



0:08 236K views

11:57 AM - 30 Oct 2018

4,248 Retweets 8,660 Likes



💬 48

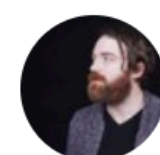
↻ 4.2K



❤️ 8.7K



Tweet your reply



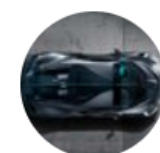
Seth Porges 🔵 @sethporges · Oct 30

Replying to @keiths @nickgray

Back in my day, those kids would have lost all their skin trying that



❤️ 44



Overhead Cars @CarsOverhead · Oct 31

Replying to @keiths @JoeSimpson

Also UX vs UI 😂

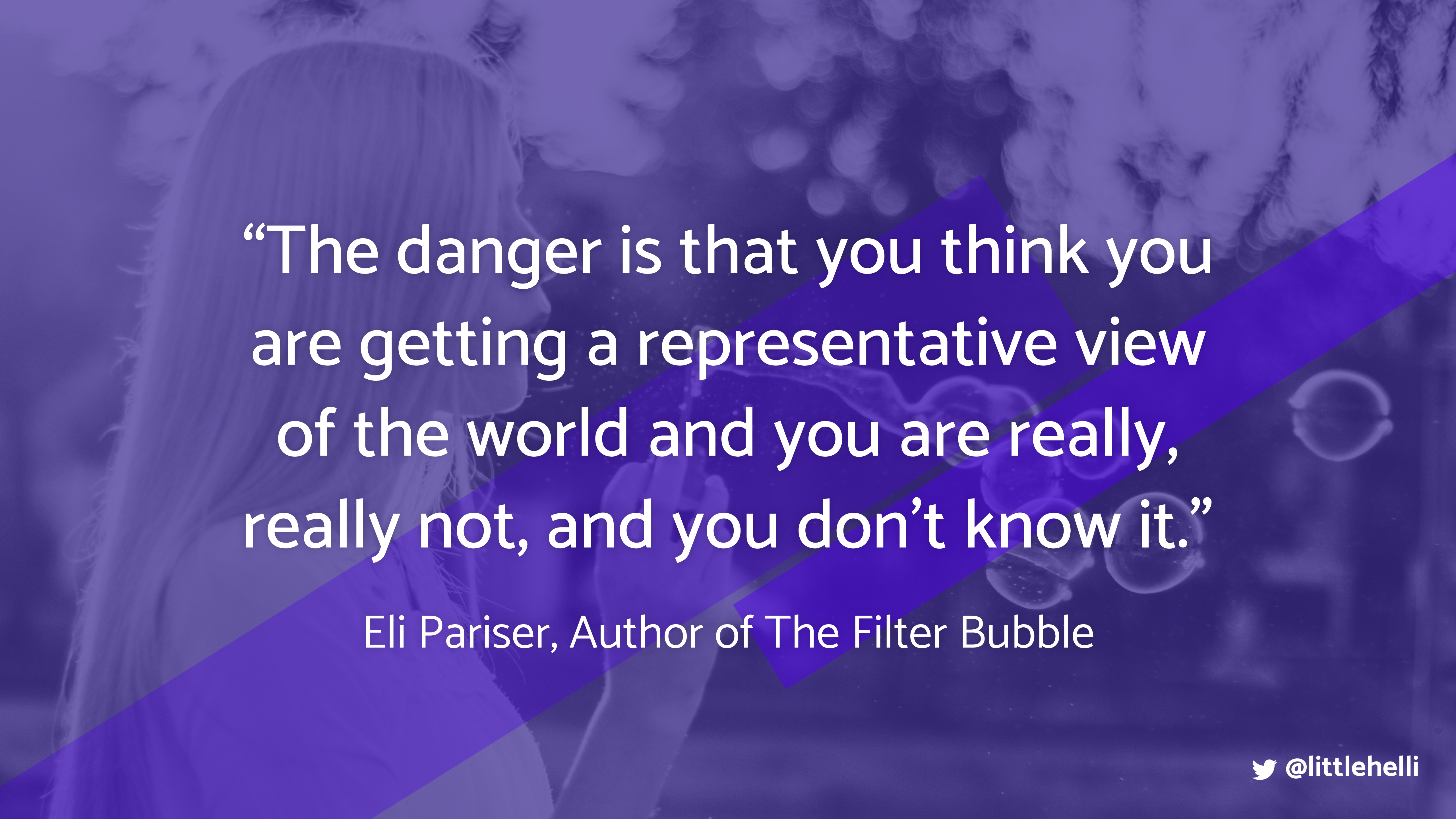


“We spend a very long time mapping the user journey and plotting the customer journey when in reality, every human is on a journey we know nothing about.”

– Pete Trainor, HIPPO: The human focused digital book





A group of children are gathered around a smartphone, looking at the screen with interest. The image is overlaid with a large, semi-transparent blue geometric shape that resembles a stylized 'Z' or a series of overlapping triangles. The text is centered within this blue area.

“The danger is that you think you are getting a representative view of the world and you are really, really not, and you don’t know it.”

Eli Pariser, Author of *The Filter Bubble*

CART

HORSE



“Every decision we make can raise or lower barriers to participation in society.

It’s our **collective responsibility** to lower these barriers through inclusive products, services, environments, and experiences.”

Microsoft Inclusive Design Manual

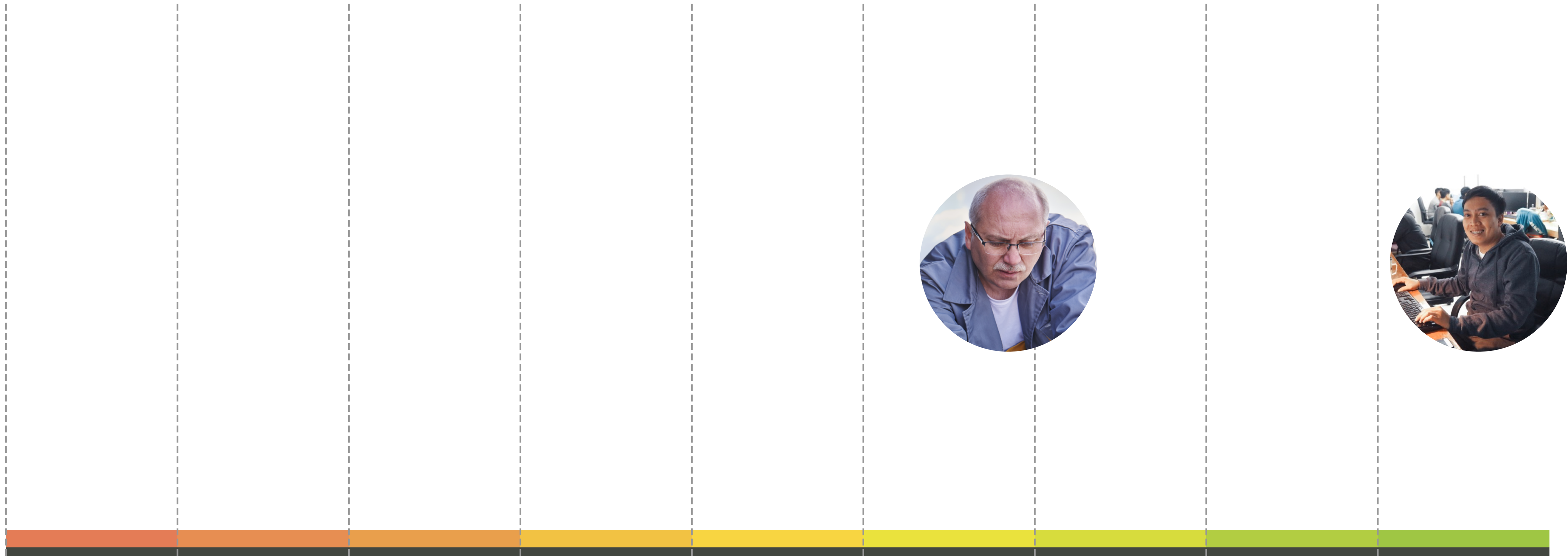
Assumption:

**OUR DIGITAL SKILLS
ARE THE SAME**

“I’m not very good with computers. Whatever system you’ve got has got to be completely idiot-proof because I’m an idiot with this sort of thing. I’m probably the worst person on the whole system.”

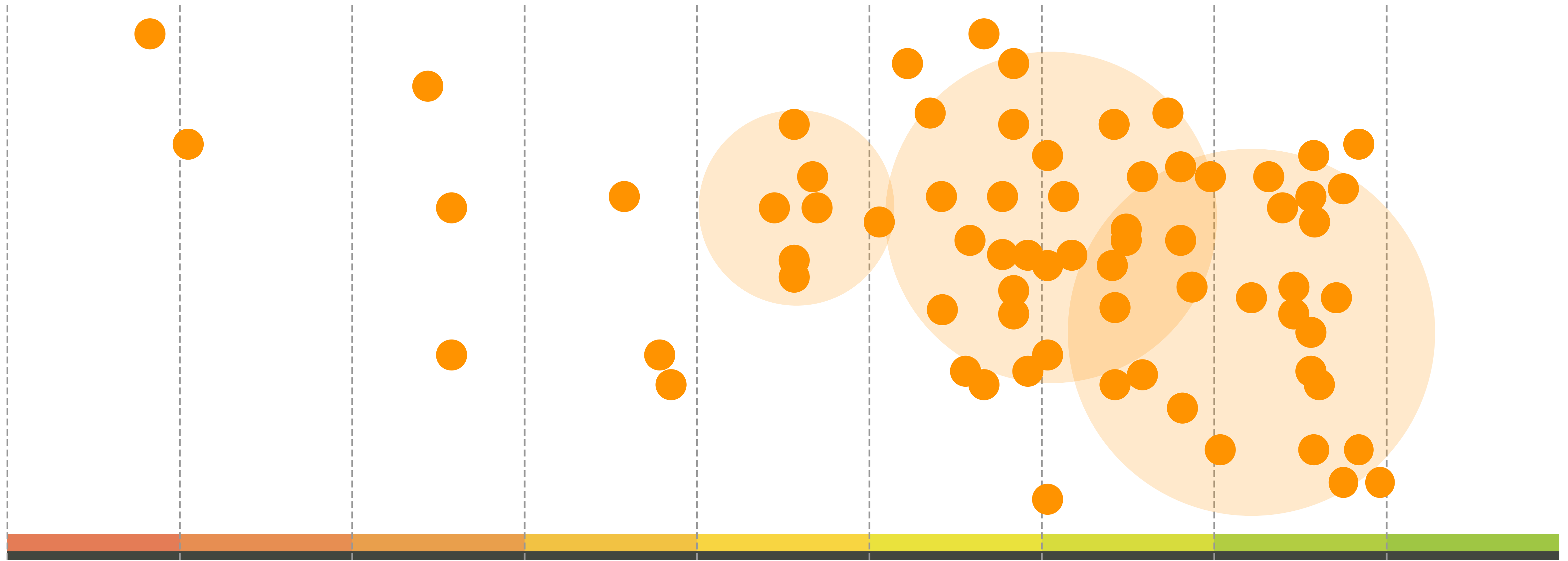
– ‘Keith’, Research participant





- 1 Never have, never will
- 2 Was online, but no longer
- 3 Willing and unable
- 4 Reluctantly online
- 5 Learning the ropes
- 6 Task specific
- 7 Basic digital skills
- 8 Confident
- 9 Expert

Digital inclusion scale



- 1

Never have,
never will
- 2

Was online,
but no longer
- 3

Willing
and unable
- 4

Reluctantly
online
- 5

Learning
the ropes
- 6

Task
specific
- 7

Basic
digital skills
- 8

Confident
- 9

Expert

Digital inclusion scale GOV.UK



4.3 million

aged 15+ in the UK have
zero basic digital skills

A person is shown from the side, wearing a blue sweater, sitting at a desk and using a laptop. The image is overlaid with a semi-transparent blue layer. A large, white, bold text is centered on the image, reading:

One-fifth of the population do not have foundational digital skills

Digital Foundation skills

- Use a device/peripheral (e.g. mouse, keyboard, touchscreen etc.)
- Open an internet browser to find and use websites
- Turn on a device and log in to any accounts/profiles
- Update and change a password when prompted to do so
- Connect a device to a Wi-Fi network
- Find and open different applications/programmes on a device
- Use the different menu settings on a device to make it easier to use

Digital Foundation Skills

4.9m

**People cannot use
a mouse or
touchscreen**

6m

**People cannot
turn on a device**

7.1m

**People cannot
open an app**



“I’ve never scanned anything – I get my daughter to do that.

I would need some idiot notes.”

– ‘Sonia’, Research participant





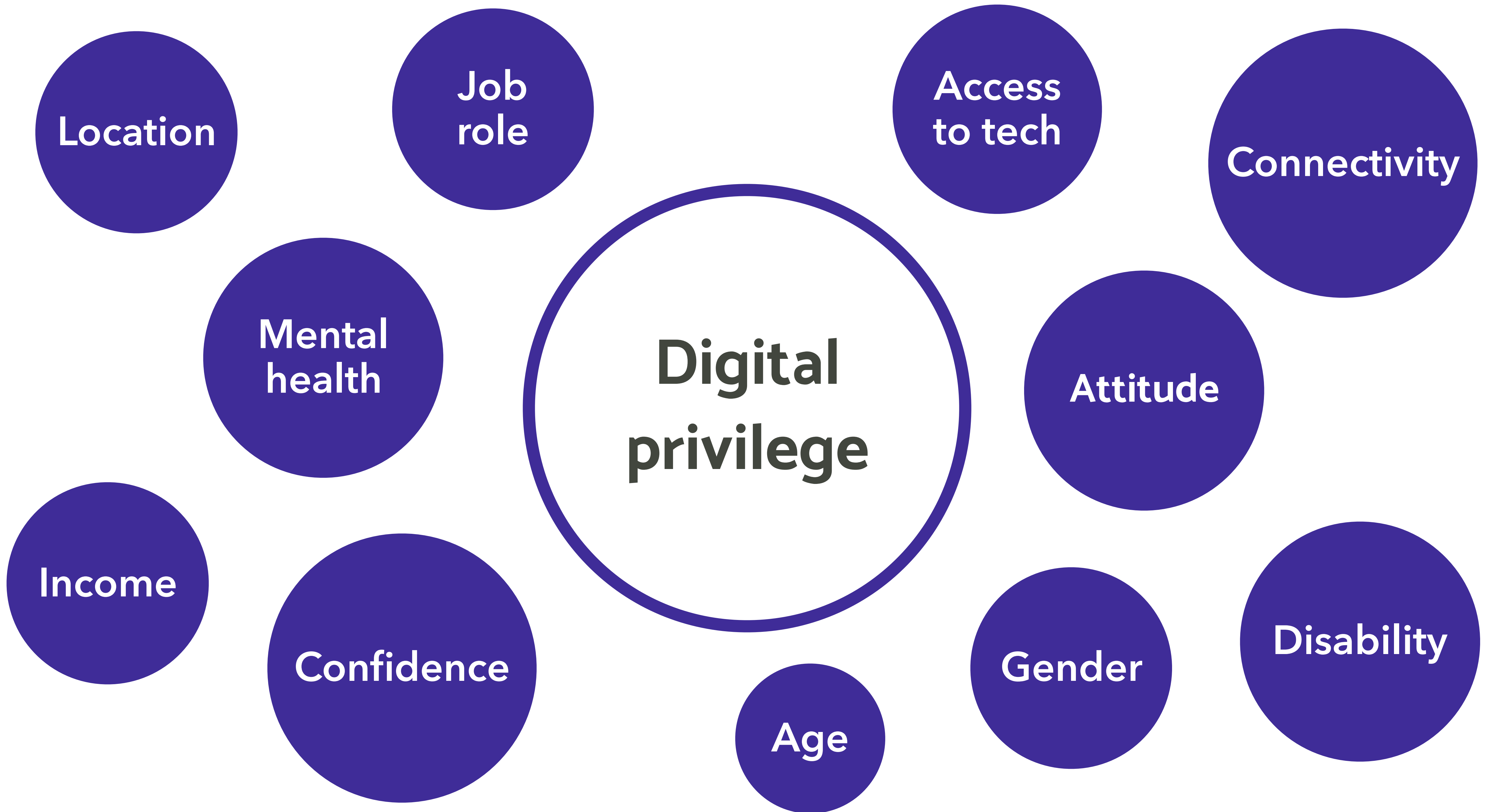
- | | | | | | | | | |
|---------------------------|------------------------------|-----------------------|-----------------------|-----------------------|------------------|-------------------------|-----------|----------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Never have, never will | Was online, but no longer | Willing and unable | Reluctantly online | Learning the ropes | Task specific | Basic digital skills | Confident | Expert |

Digital inclusion scale



**“You’re spacemen
talking to cavemen.”**

Research participant



Location

Job
role

Access
to tech

Connectivity

Mental
health

**Digital
privilege**

Attitude

Income

Confidence

Gender

Disability

Age

Assumption:

**ACCESSIBILITY IS
FOR PEOPLE WITH
DISABILITIES**

**Design + Accessibility =
Inclusive Design**



4.1 million
adults in the UK are offline



Offline profile

48%

are under 60
years old

47%

come from a low
income household

32%

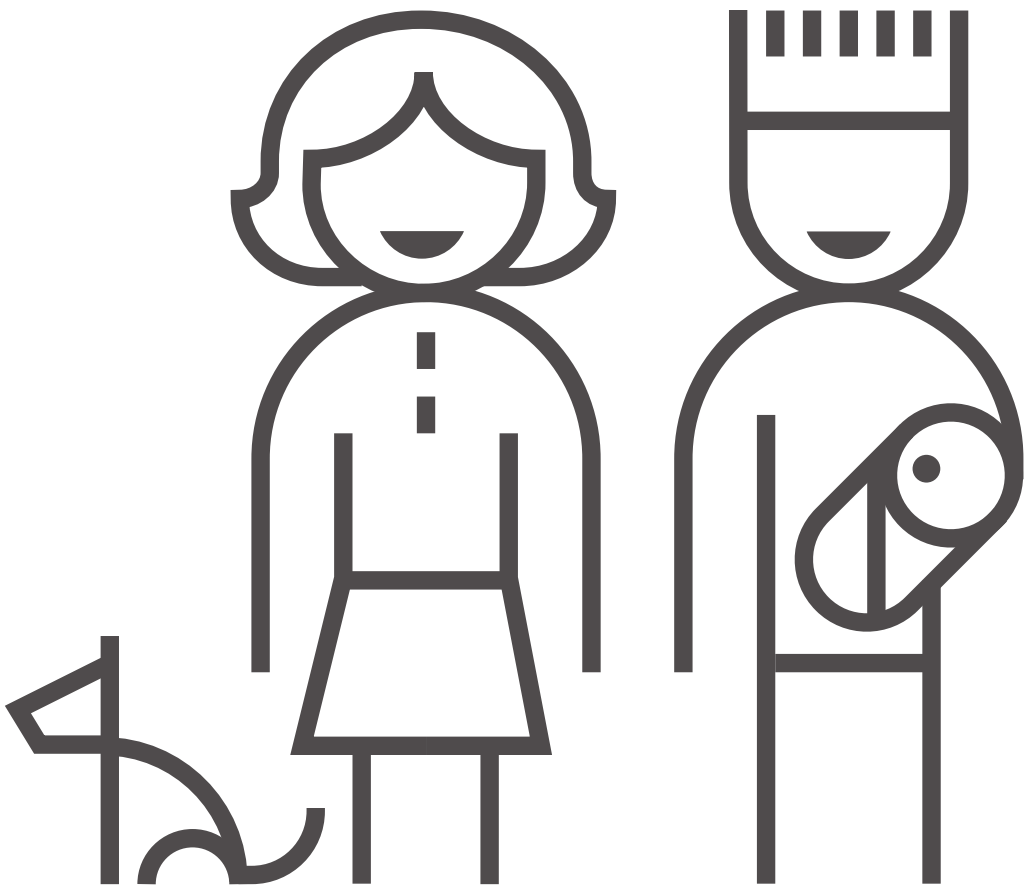
Have a disability

“Sometimes I feel like I am being pushed into doing things online. It doesn’t always suit me or my daughter, who has a disability. I am very old fashioned and do prefer things on paper.”

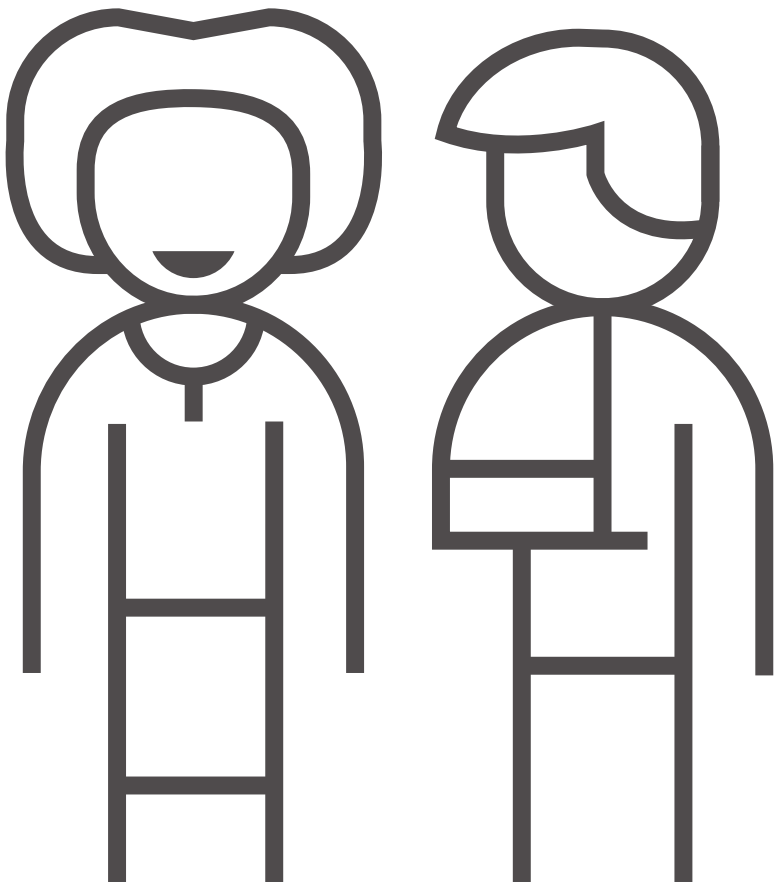
- ‘Alison’ Research participant



The Persona Network



Family



Friends



Strangers

The Persona Spectrum

Permanent

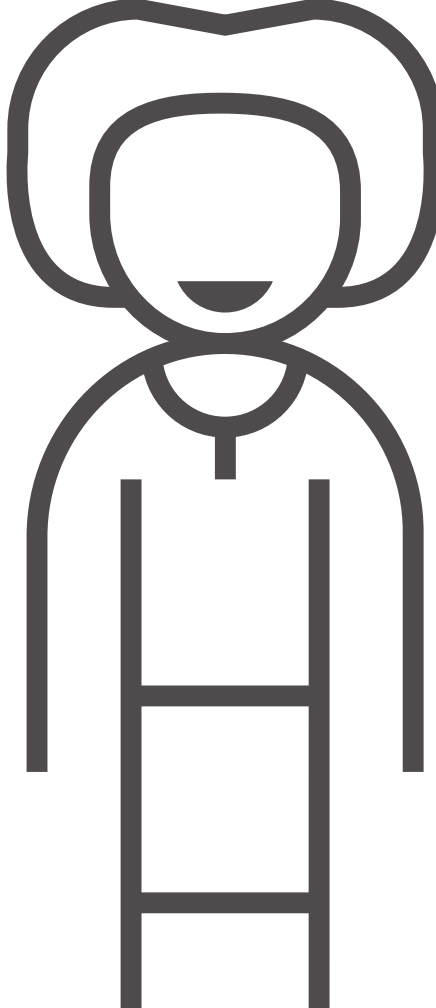
Temporary

Situational

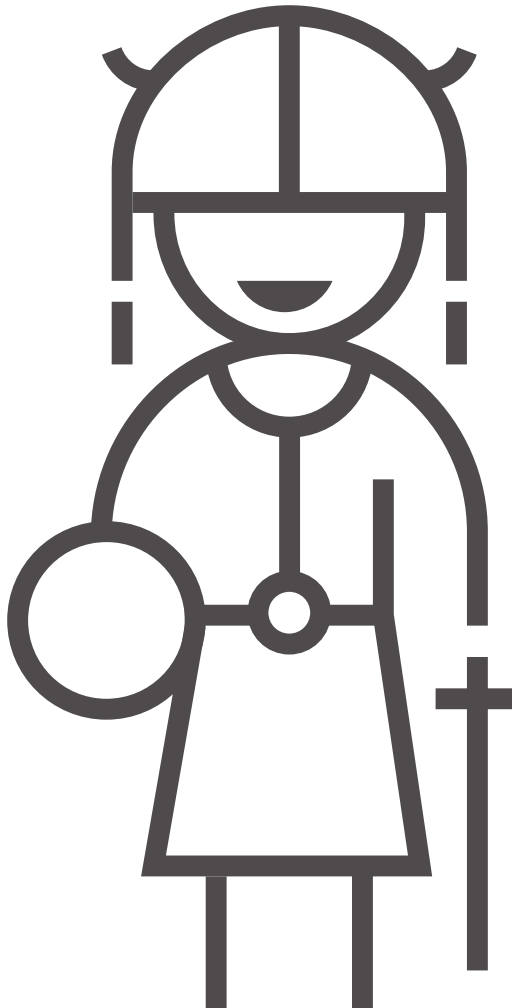
Speak



Non-verbal

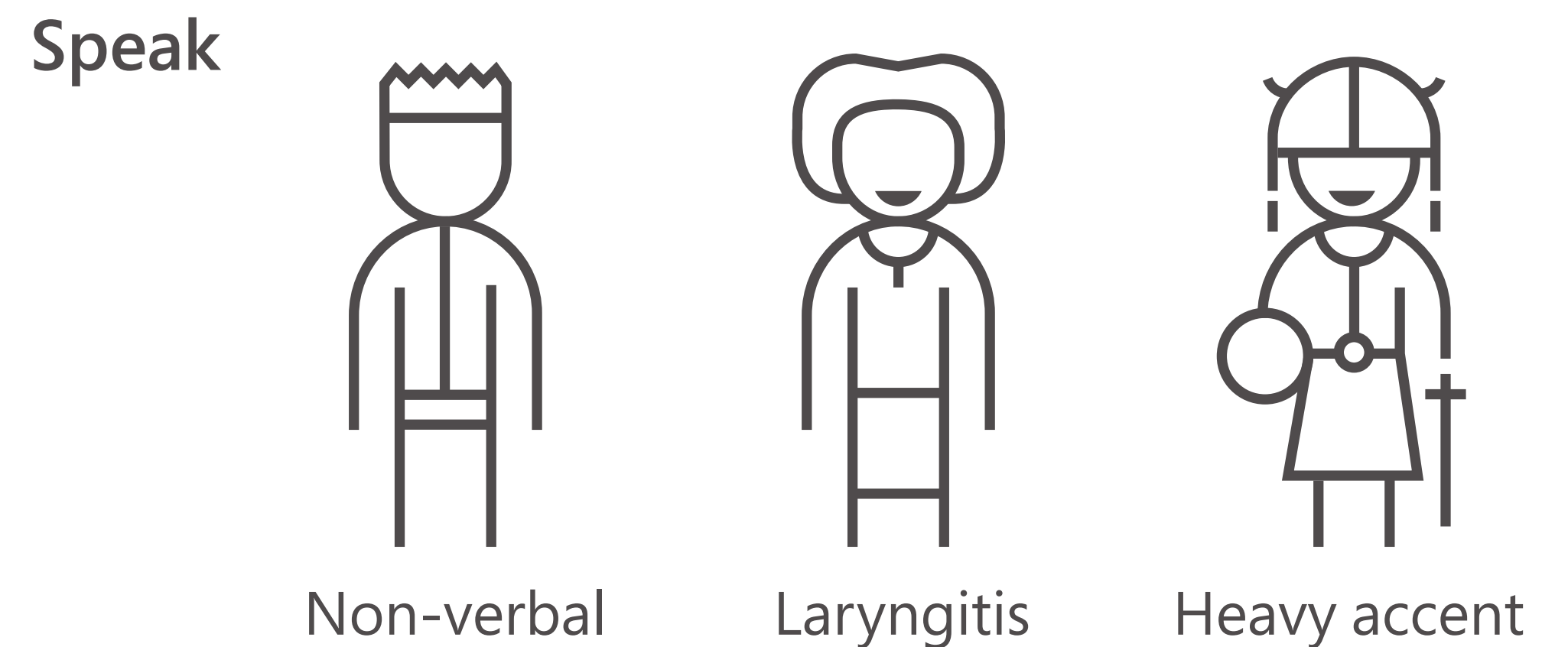
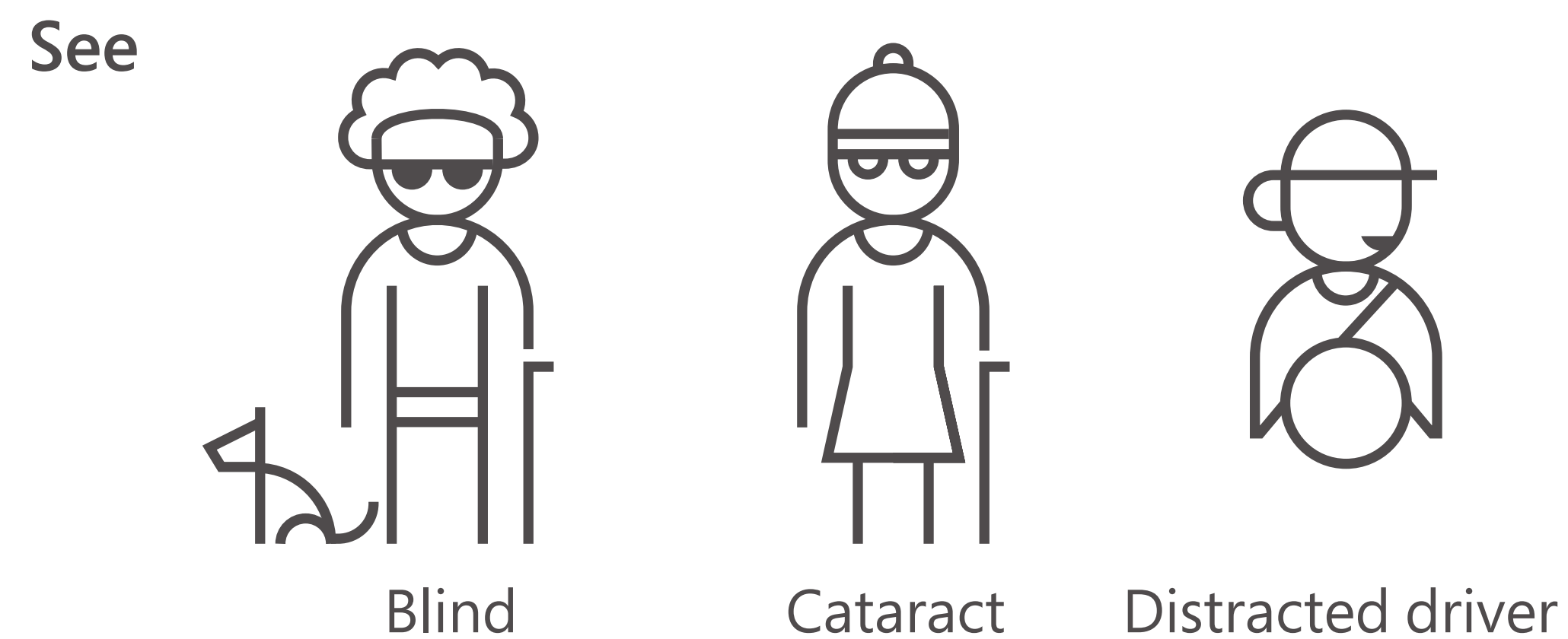
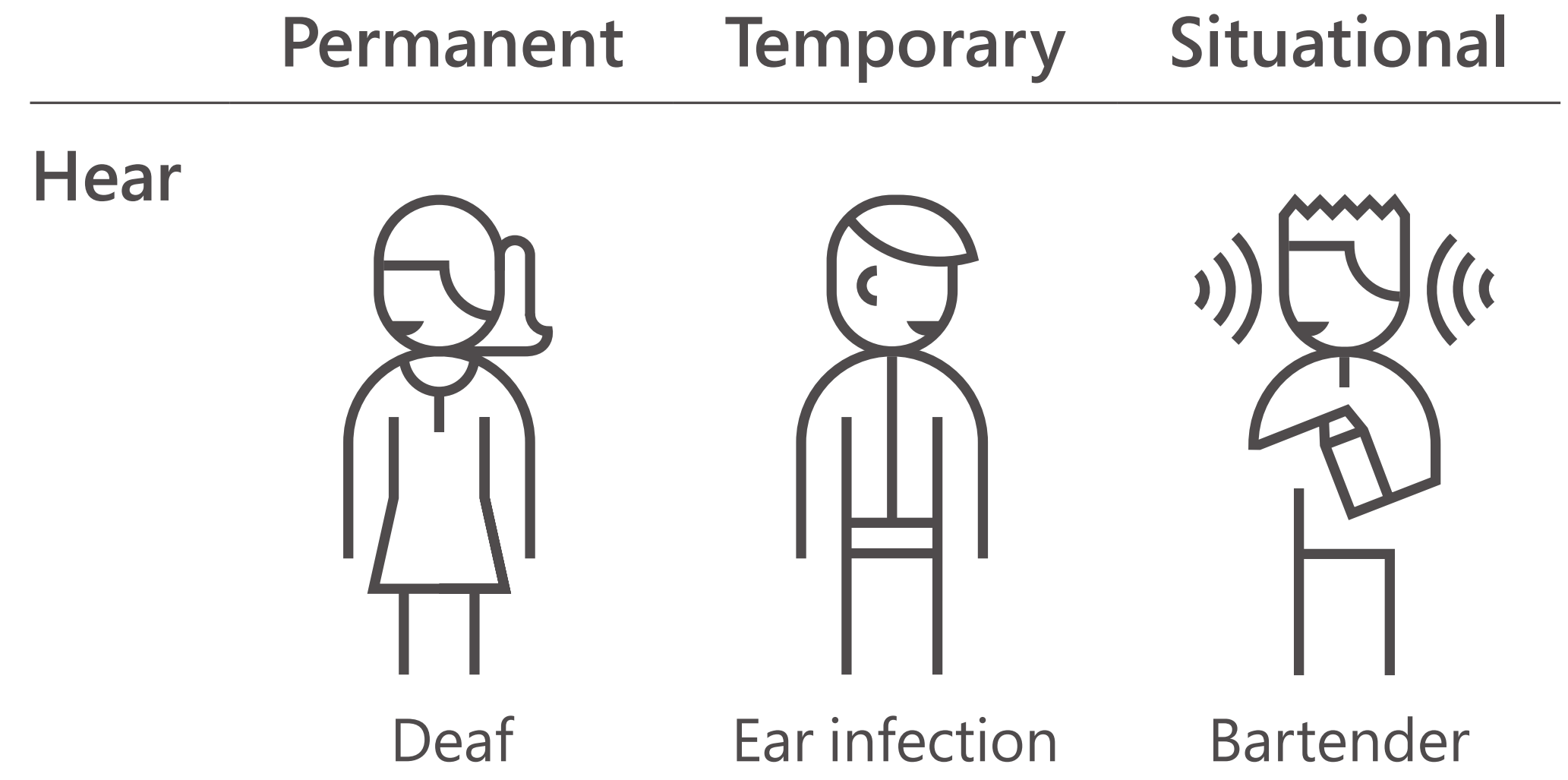
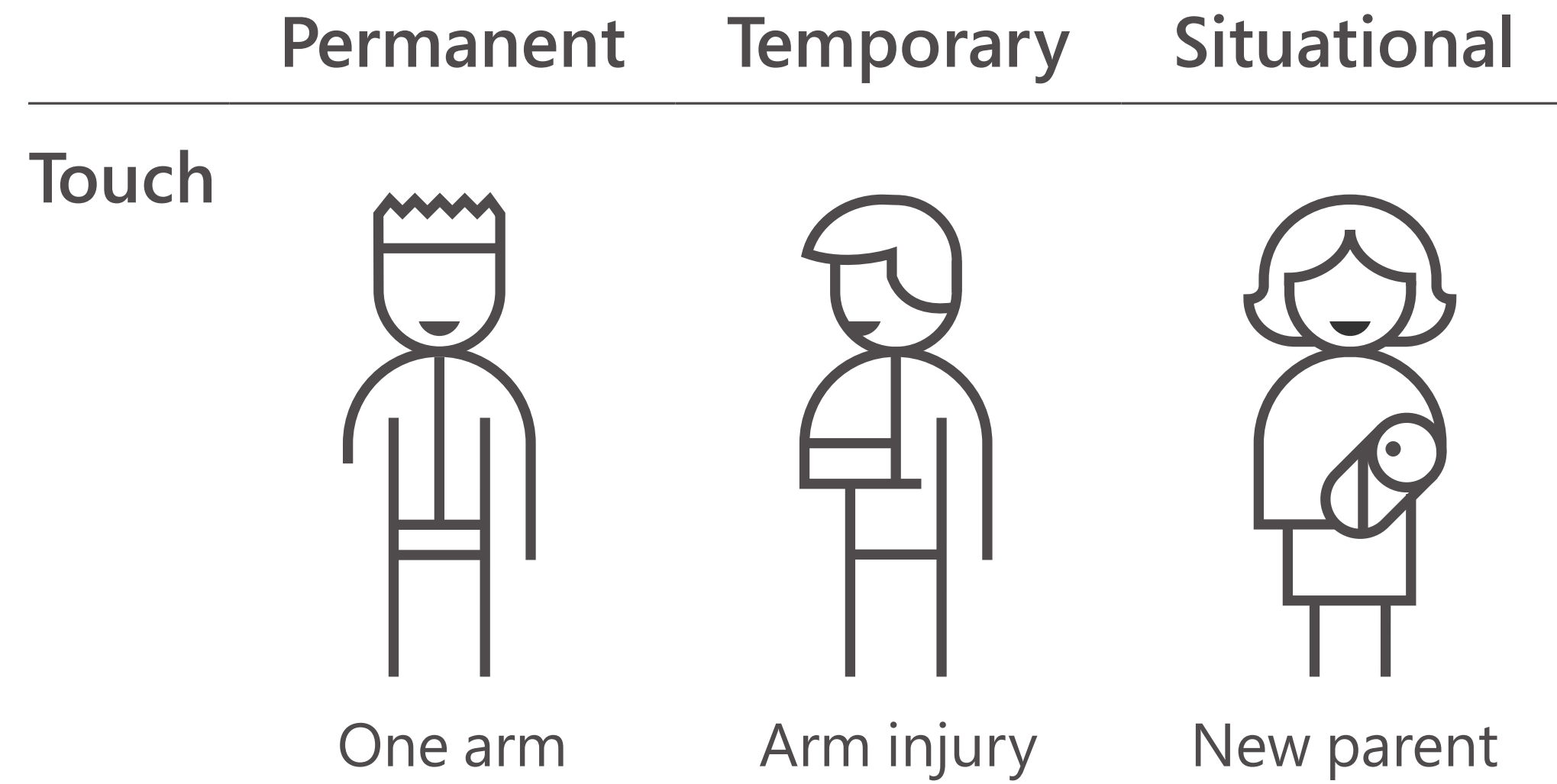


Laryngitis



Heavy accent

The Persona Spectrum



Assumption:

**WE'RE WORKING
WITH THE SAME
TOOLKIT**





TONER

LaserJet Pro M402dne



HYPERX

CLASSES

Table with multiple columns and rows, likely a classification or technical specification table. The text is small and partially obscured.

@littlehelli

massmould
MAGLLEN ROAD, PLUYCK, MK45 5DD. TEL. 01323 718718




MOT VIEWING AREA



EXIT







“We frequently only create idealised personas: attractive people happily interacting with our products and completing tasks.”

Design for Real life, Eric Meyer
& Sara Wachter-Boettcher





Without user research, you won't know what problems you're trying to solve, what to build or if the service you create will work well for users.

GDS Service Manual

**User research
is a team sport**





**“Everyone is responsible
for looking out for the user.”**

Erika Hall, Just enough research

"It sounds better than I thought it was. If it's only once and not the complete set-up then it's not as bad as I thought it was going to be."
DVSA admin

"Now I've done it, in the future it won't take minutes. I'd get the code off my phone."
Vehicle examiner

"I'm a real technophobe. I'm probably one of the better candidates for this."
Vehicle examiner

"From a legislative view, you've got to put something in place... I can't see it being an issue. It looks like a good product."
Vehicle examiner

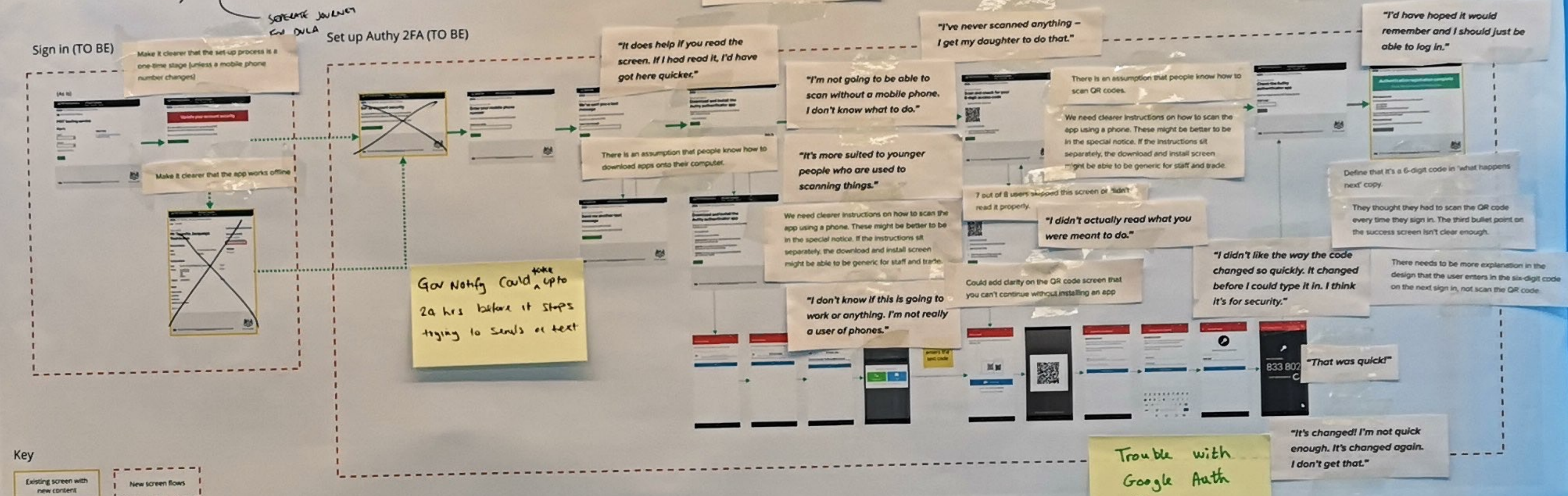
"The setting it up was alright. I need to play with the system a bit more. I freely admit that I'm analogue."
Vehicle examiner

"I understand now. It's quite easy to do. I think it's quite good."
Vehicle examiner

"Once you know what to do and you use it every single day, it's not a problem."
Vehicle examiner

"There's a lot of guys out there who will struggle. If you ask them to download stuff there'd be resistance."
Vehicle examiner

VERSION 1 Existing DVSA/DVLA staff MFA set up



Clearer step-by-step instructions are needed outside of the set-up process including app icons for VEs to see what Microsoft Authenticator looks like.

"I would need some idiot notes."

"I would need more guidance. Once I've done it a few days it would be alright."

"It's pretty straight-forward and easy to use. Just give a bit more information about the app."

"I'd have hoped it would remember and I should just be able to log in."

"It does help if you read the screen. If I had read it, I'd have got here quicker."

"I've never scanned anything - I get my daughter to do that."

"I'm not going to be able to scan without a mobile phone. I don't know what to do."

There is an assumption that people know how to scan QR codes.

We need clearer instructions on how to scan the app using a phone. These might be better to be in the special notice. If the instructions sit separately, the download and install screen might be able to be generic for staff and trade.

"It's more suited to younger people who are used to scanning things."

We need clearer instructions on how to scan the app using a phone. These might be better to be in the special notice. If the instructions sit separately, the download and install screen might be able to be generic for staff and trade.

"I didn't actually read what you were meant to do."

"I didn't like the way the code changed so quickly. It changed before I could type it in. I think it's for security."

Define that it's a 6-digit code in 'what happens next' copy.

They thought they had to scan the QR code every time they sign in. The third bullet point on the success screen isn't clear enough.

There needs to be more explanation in the design that the user enters in the six-digit code on the next sign in, not scan the QR code.

Gov Notify could take up to 20 hrs before it stops trying to send a text

"I don't know if this is going to work or anything. I'm not really a user of phones."

Could add clarity on the QR code screen that you can't continue without installing an app

"That was quick!"

Trouble with Google Auth Backups

"It's changed! I'm not quick enough. It's changed again. I don't get that."

Update your account security

Enter your mobile phone number

We've sent you a text message

Download and install the Authy authenticator app

Scan and check for your 6-digit access code

Security authentication complete

Sticky notes:

- Would start as soft point for existing staff users?
- Gov. NOTIFY? MTS currently doesn't support this - ticket for this?
- Send the whole message + make it bold
- Do we need a pin test?
- How long will it take for the code to arrive? How long is the code valid for?
- Are we over sending a text message, could we include links in this to the Authy app?
- Is there a better way to explain to users exactly what to expect from the app when they sign in? Should we have a link to the app?
- Should we add a check to confirm the code is appearing correctly on the user's phone in a real world?
- Clarify that both screens are set up - SMS verification - AUTHY 1 with guidance



**“We are a community that exerts
great influence. We must protect
and nurture the potential to do
good with it.”**

The Copenhagen Letter

THANK YOU