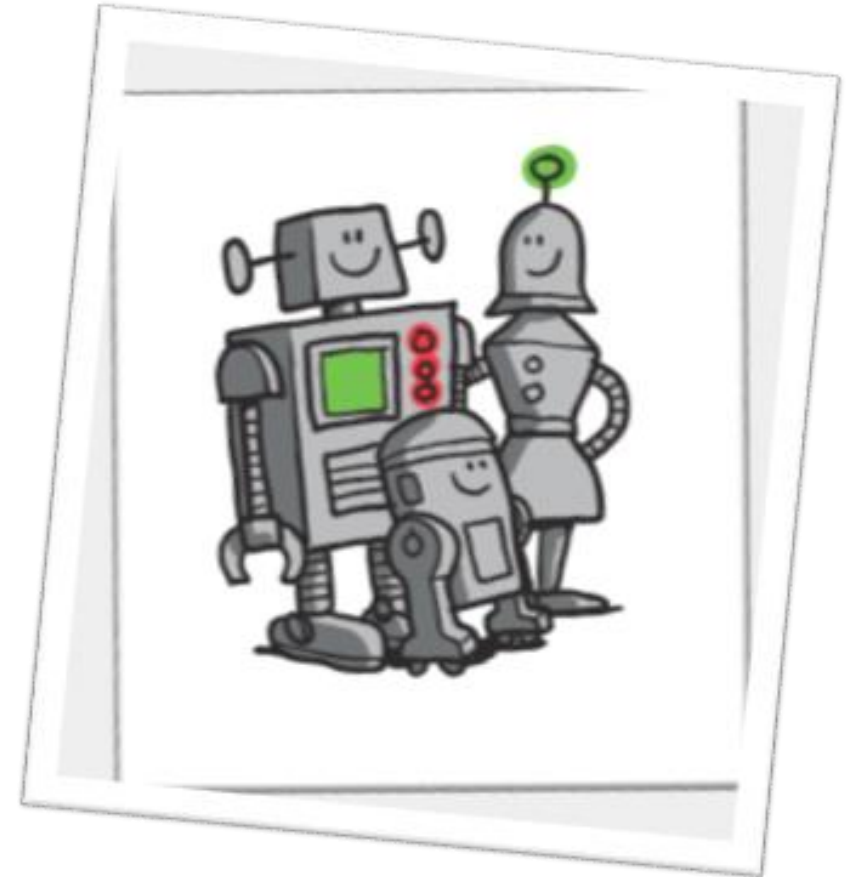


# Busting myths on the use of bots in public services

**Andrew Culpin,**  
Service Improvement Lead



# What is a chatbot?

A 'bot' is a term used for software that automates a task.

So a chatbot does that through conversation.

# Myths about bots?

...negatively  
impact or reduce  
jobs

...are all based  
on AI

...won't reach  
vulnerable  
people

...are only for  
customer service  
/ transactional  
services

...are easy  
to create

A person's hands are holding a smartphone. The screen shows a text message conversation. The message text is: "address: 8 Derwentdale Gardens, Newcastle upon Tyne Tyne and Wear NE7 7QL? (Yes/No)". Below that, a larger message says: "Thanks for all your details. When you arrive at the recycling center, our staff will ask for your phone number to access these details. Please bring your drivers licence too!". A green bubble with the word "Yes" is visible. The phone's status bar at the top shows the time 13:35 and 83% battery. The background is a blurred image of a person's hands holding the phone, with a teal overlay.

# WasteBot

Permit for taking a van to the household waste recycling centre

## The brief

**Help the service make efficiency savings by developing an “online permit process” to replace existing manual and paper based processes.**

We didn't start out with the solution of using a chatbot



## Manual, slow paper-based process

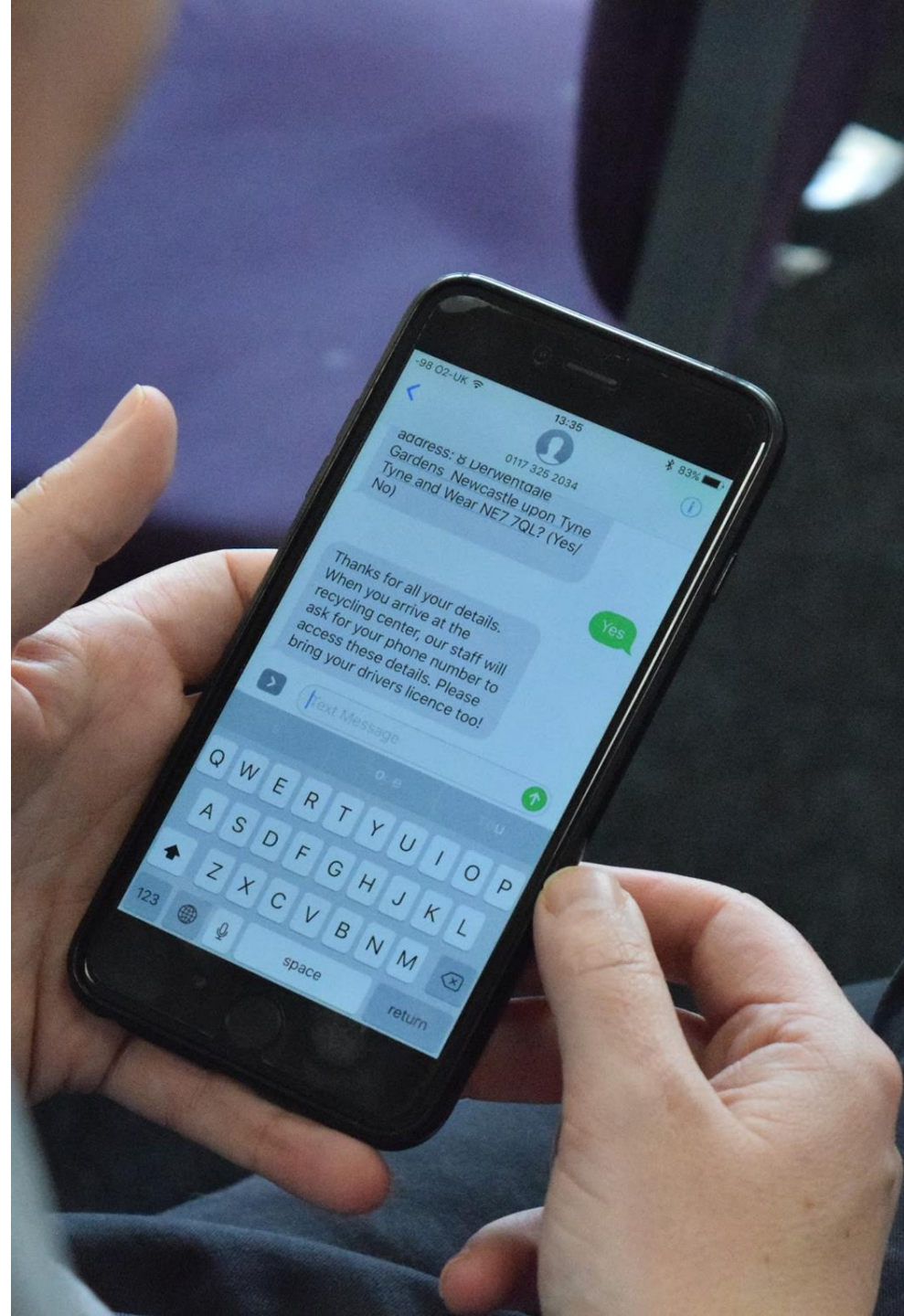
- Up to **14 days** to get a permit
- High volume of manual paperwork and administration for staff in granting and checking permissions
- Missing information on forms
- Difficult to use the data to manage the service (eg. tracking a registration that committed fraud)



# An SMS application process for users that also supported the service staff to verify permits on-site.

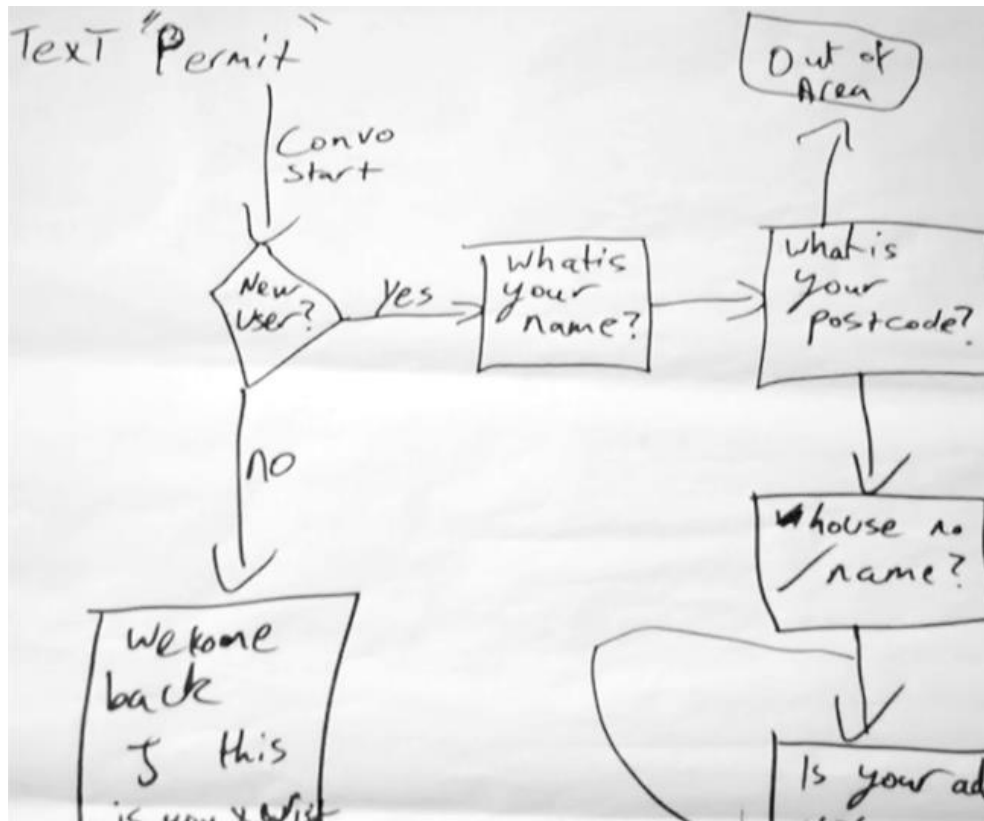
Why a chatbot like service?

- Confidence that users and staff had access to phone with SMS
- Removed manual administration
- Quick and easy for users





# Design, prototype and testing

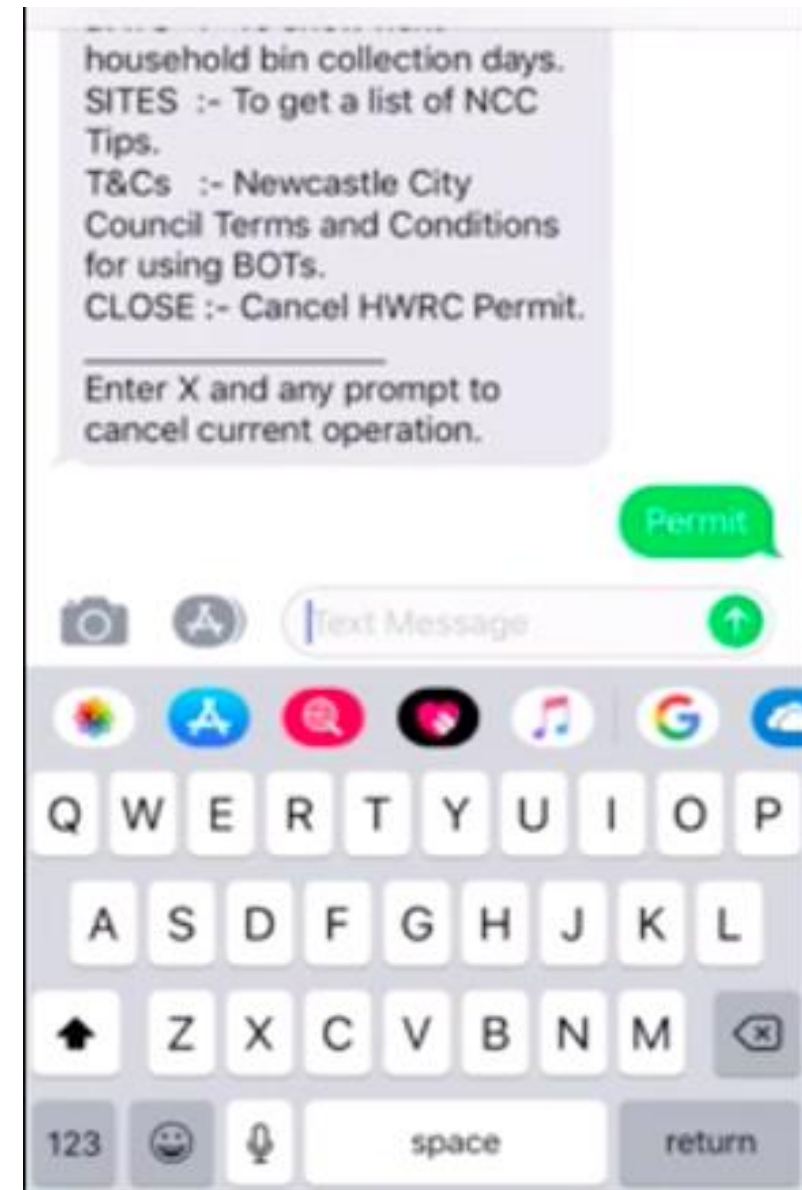




# What we developed

**An SMS service where you can apply and receive permits on your phone.**

- Connected to data systems
- Checks against past applications/permits
- Non-mobile users can still get a permit via the contact centre - given a reference number to use.
- Allows site staff to refuse entry and capture this data in a usable way



# Impact

**6813**

users to  
date

**Almost**

**100%**

channel shift with  
no complaints

**14 days to**

**90 secs**

reduced time to  
get a permit

- Financial savings of c. £27k - resource redeployed to focus on data analysis, adding more value

# Impact

**Engagement** of initially sceptical workforce

**Improved detection of fraud** and inappropriate use of the sites and paper permits leading to **less on-site conflict**

**Easier process more efficient** for users

**Less time needed** to interpret documents and validate permits - **more time to assist residents** with waste onsite.

“...lot’s of good feedback from staff...the old system was too easy to compromise.”

“It’s dead straight forward.”

“...reduced the amount of people who were giving false details on the old system. ...now staff can double check using the bot.”

# What we learned

1. Simple transactions like this work
2. Conversations need to be tested in the real world. Experiment and try things out to learn and keep iterating.
3. Context of the service is important - not just leading with new tech/concept because it's there and available to use.
4. Not just designing the frontend experience and just a 'chatbot'. It connects to the backend experience of teams, service and systems.
5. Team sport - including developers and others makes things better when designing and developing
6. Might need to consider 'terms and conditions' and public perceptions of 'bots'



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# ASC Bot

(Adult Social Care)

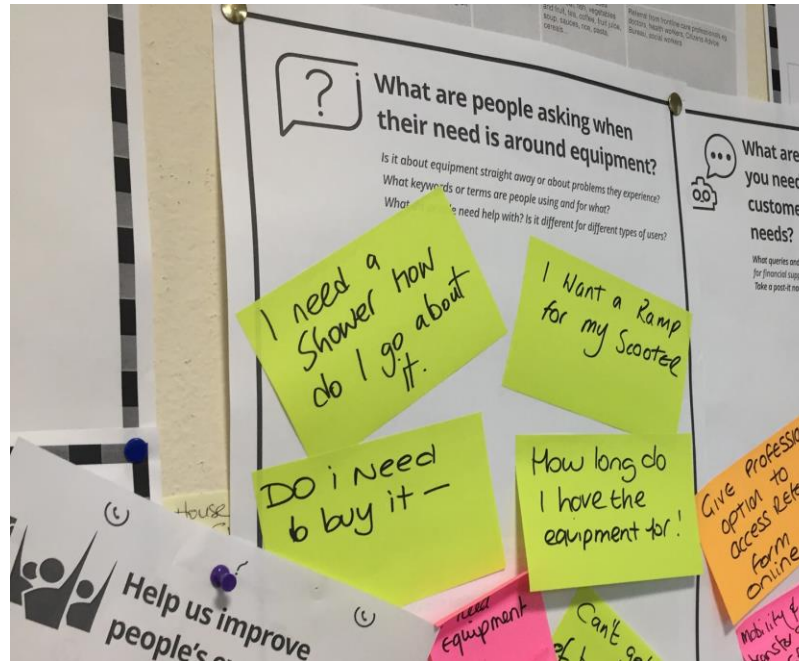
Equipment and service enquiries

## The brief

**Help reduce the high-volume of calls to the adult social care contact centre.**

## Lots of avoidable contact about low level enquiries

- A lot of calls are for general information. About 22% result in no services provided
- People rely on the council for information and guidance that is also available elsewhere.
- Information is available elsewhere but can be hard to navigate
- People are not always aware of the services that can help them.

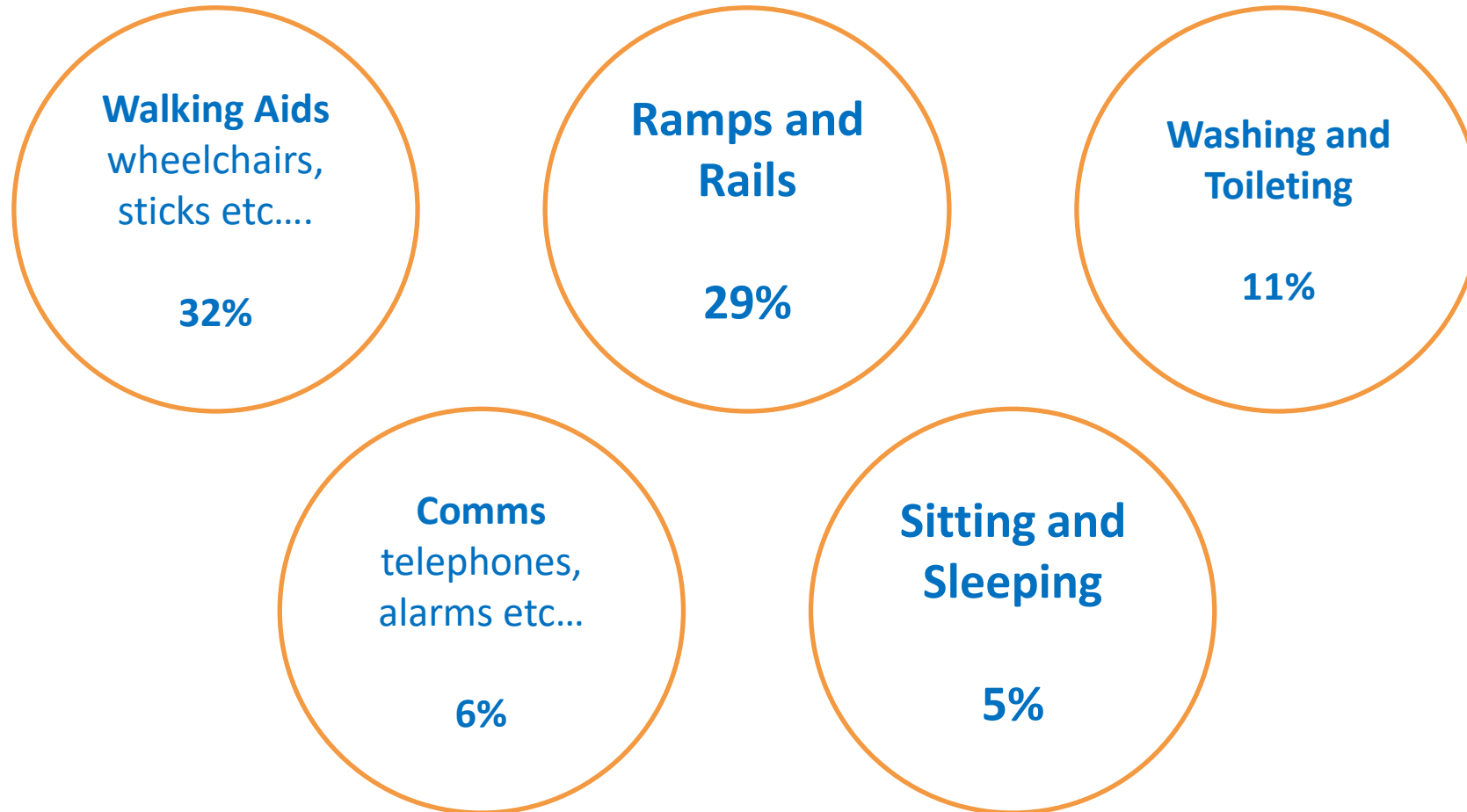


## Most are calling on behalf of someone else

- Often it is not the end service users themselves who contact the service, but their relatives, carers or professional workers
- Many carers aren't seeking support, perhaps because they don't think they are a carer or know what is available for them.

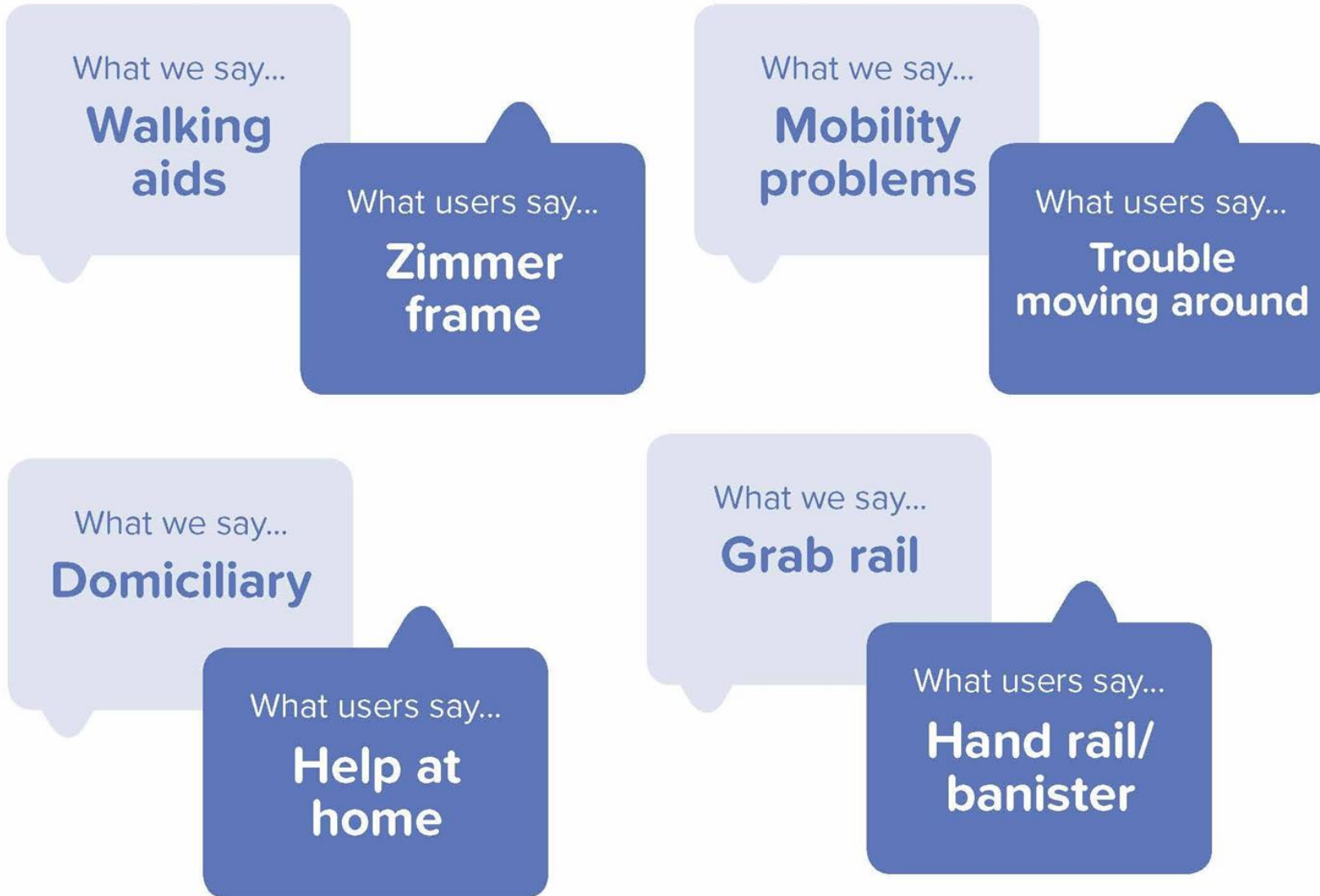


# Understanding user needs



This is our  
Newcastle

# Learn the language that people use

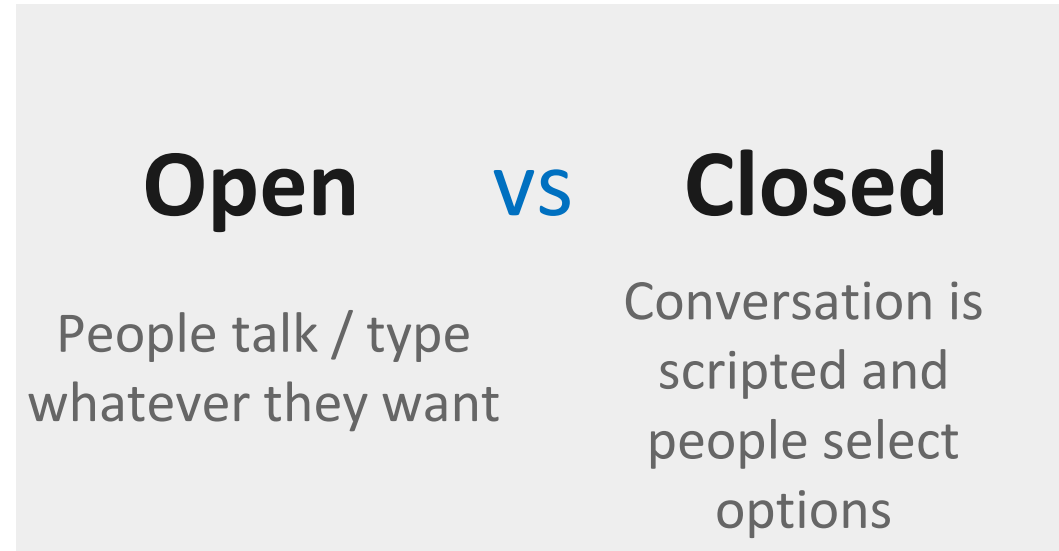


# Deciding on type of interaction and conversation

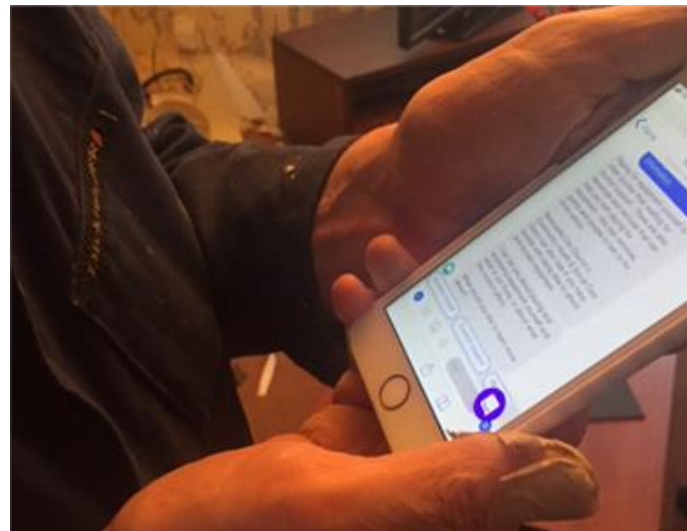
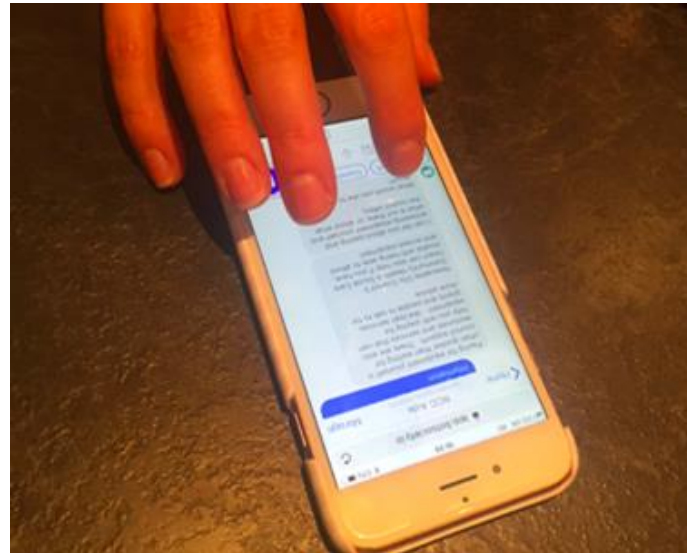
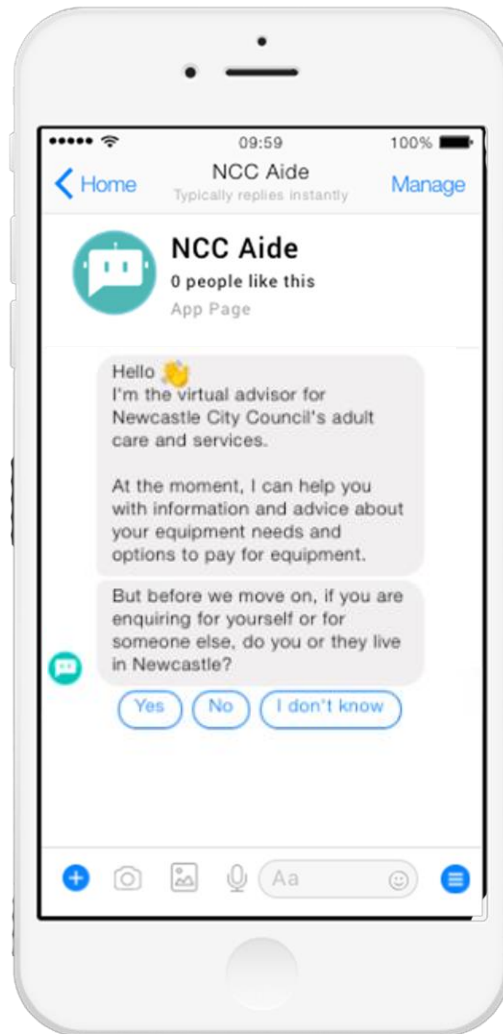
We wanted it to be more open so that we can learn how people would and wanted to talk to it.

We did a bit of a mix of both open and closed.

Open to capture initial concern and enquiry, closed to help guide people through information and advice.



# Prototype and testing:



## Open and ongoing

I could sit in bed and do this.  
- older adult

This is going to replace me...  
- staff at contact centre

I don't want to speak to anyone.  
- young carer

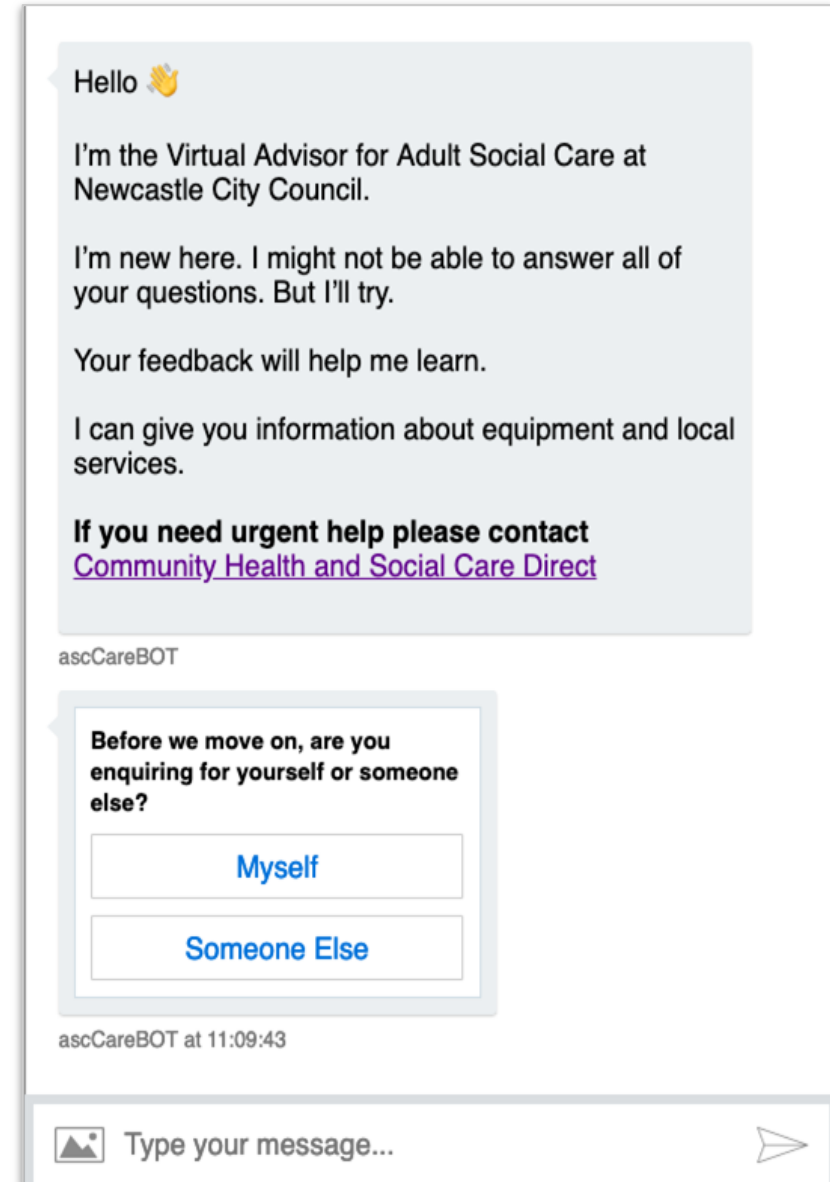
Where do I say what I'm looking for?  
- older adult



# What we developed

**A virtual advisor chatbot that signposts and provides people with non-urgent advice related to equipment and service to help them better understand options available to them.**

- Signpost to types of equipment and services based on issue/input
- Provided information and advice about how to get equipment (support from the council or self-serve)
- Carers journey built in
- Emergency cases to signpost to the right people
- Other areas added as we learned more



# Things we still need to learn and test

The bot will reduce the volume of calls to the social care contact centre

Better engagement and uptake in alternative services.

People are comfortable using and interacting with the chatbot.

People find the information and signposting is useful and meets their enquiry

Able to capture information that is helpful for the council - to better understand users needs and services they are looking for.

# What we learned

- Open conversations are hard
- Scope and role of bot is important to test and iterate with everyone
- Understanding current conversations and language is key to for conversations with the bot
- Need to be open with process, keep talking, testing and iterating
- Tools and platforms make it easier to create bots - but that doesn't mean it's easy to design one.
- There is not a lot out there to help 'prototype' - you need to try and test different ways
- Design principles help a team be clear and aligned on how they are designing the bot.
- People will surprise you in how they might use the bot

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**AI Innovation of the year  
Finalist 2019**

**Refuse and Recycling  
Innovation Award  
Winner 2019**



**Thank you**