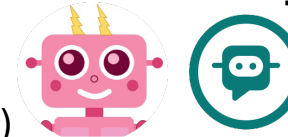




Improving local council chatbot accessibility for autistic users



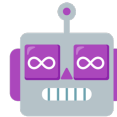
Emily Wells (ew00880@surrey.ac.uk)



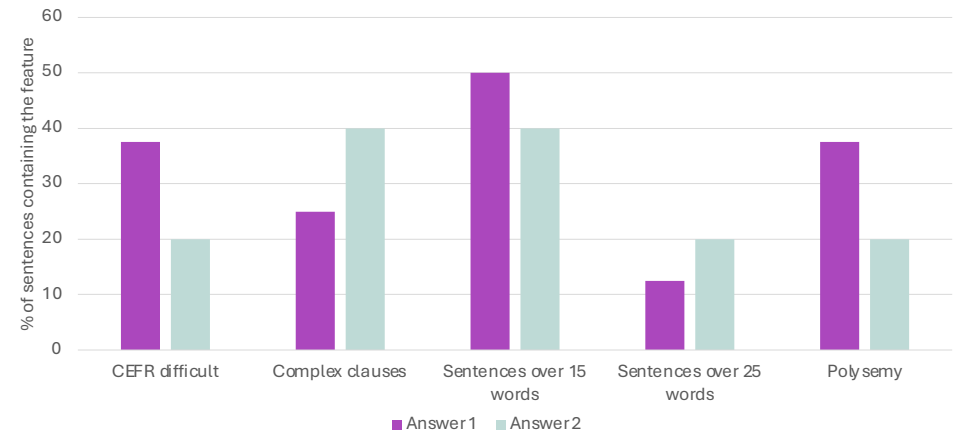
What is the **background** of your study?

Local council chatbots have several **benefits for autistic users**:

- Ease and speed of use
- Always available
- Allow the user to complete tasks independently

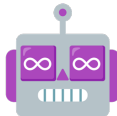


In most cases, across 2 sets of answers, **bots did not perform consistently for each readability feature**. The chart below shows a comparison of the Stratford-on-Avon chatbot's performance in various readability metrics across 2 answers.



But they also have **disadvantages**:

- **Rule-based bots** may be **less flexible** with **limited context-awareness**.
- **LLM-based bots** may have **hallucinations** and **limited transparency**.

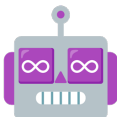


What are your **research questions**?

What are autistic users' perceptions of the accessibility of local council chatbots?

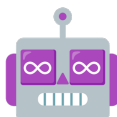
Which factors have the greatest impact on autistic users' perceptions of local council chatbot accessibility?

How can the accessibility of local council chatbots be improved specifically for autistic users?



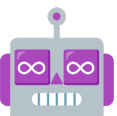
What **studies** have you conducted so far?

A pilot study of 10 local council chatbots showed **inconsistency** in readability features (top right) and answer topics (bottom right).



What are your **next steps**?

- Talk to **stakeholders** (local councils, University of Surrey Disability and Neurodiversity team).
- **Interview autistic users** about their perceptions of local council chatbot accessibility and possible improvements.
 - **Build a more accessible chatbot!**



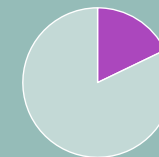
Do you have any further questions? Ask the real Emily!

Topic consistency

An analysis of the points mentioned in each bot's 2 answers showed that the points mentioned in each answer were not always consistent.

Croydon chatbot – 82.1%

Rother chatbot – 25.8%



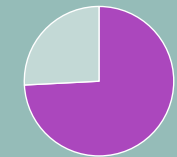
Inconsistent Consistent

Inconsistent areas

1st answer - "If you do not pay your bill, you could face legal action, fines, or have your debt passed to enforcement agents or bailiffs."

1st answer - "You can appeal [...] your eligibility for a discount."

1st answer - "If [...] someone moves in or out [...] you must let us know."



Inconsistent Consistent

Inconsistent areas

2nd answer - "The liability to pay Council Tax is set out by law under the Local Government Finance Act 1992. It is not based on a contract or your consent but is a statutory obligation for residents liable to pay in their local area."

1st answer - "Each band has a different rate of tax, which contributes to the total amount you pay."