

# Upskilling people to interact with bots helps bridge the digital divide

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	Relevant response	False negative	False positive	No response	Success rate
Restate purpose	8	0	0	0	100/0
Accommodation	27	13	1	0	66/34
Late accommodation	4	2	0	0	67/33
Change choice	15	5	5	1	58/42
Rephrase	22	14	6	1	51/49
Change topic	4	3	0	1	50/50
Question	1	3	2	0	17/83
Repeat	1	6	1	1	11/89

Bot responses after self-initiated repair. Credit: *Journal of Pragmatics* (2022). DOI: 10.1016/j.pragma.2022.12.004

Improving the public's ability to interact with bots will ensure that more humans have better experiences with commercial and public services that rely on bots, according to University of Surrey researchers.

To investigate what people can do when their interaction with a bot runs

into problems, Surrey researchers analyzed simulated interactions between people booking medical screening appointments, with the support of a text-based [chatbot](#) developed by Spryt—an artificial intelligence appointment scheduling assistant.

Dr. Doris Dippold, senior lecturer in intercultural communication at the University of Surrey, said, "While chatbots can be incredibly useful, one sticking point is that they sometimes need help understanding what you are saying. People often get very confused and frustrated with bots as a result of this."

The study found that the less people relied on speaking to a bot as if they were [human](#), the more successful they were in working themselves out of a misunderstanding. For example, rephrasing an original question after a misunderstanding only led to a successful resolution in approximately half of all cases. By contrast, when people used [strategies](#) that are less common in human-to-human communication—such as restating the original purpose of the interaction or using the bot's own wording—their [success rate](#) rose to 100% or over 60%, respectively.

Dr. Dippold said, "Users of chatbots and other forms of conversational AI can't necessarily rely on the strategies they use from face-to-face interaction. This means that they have to carefully monitor whether the strategies they are using when interacting with [bots](#) are effective and get used to new ways of interacting."

The findings are published in the *Journal of Pragmatics*.

**More information:** Doris Dippold, "Can I have the scan on Tuesday?" User repair in interaction with a task-oriented chatbot and the question of communication skills for AI, *Journal of Pragmatics* (2022). [DOI: 10.1016/j.pragma.2022.12.004](https://doi.org/10.1016/j.pragma.2022.12.004)

Provided by University of Surrey

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