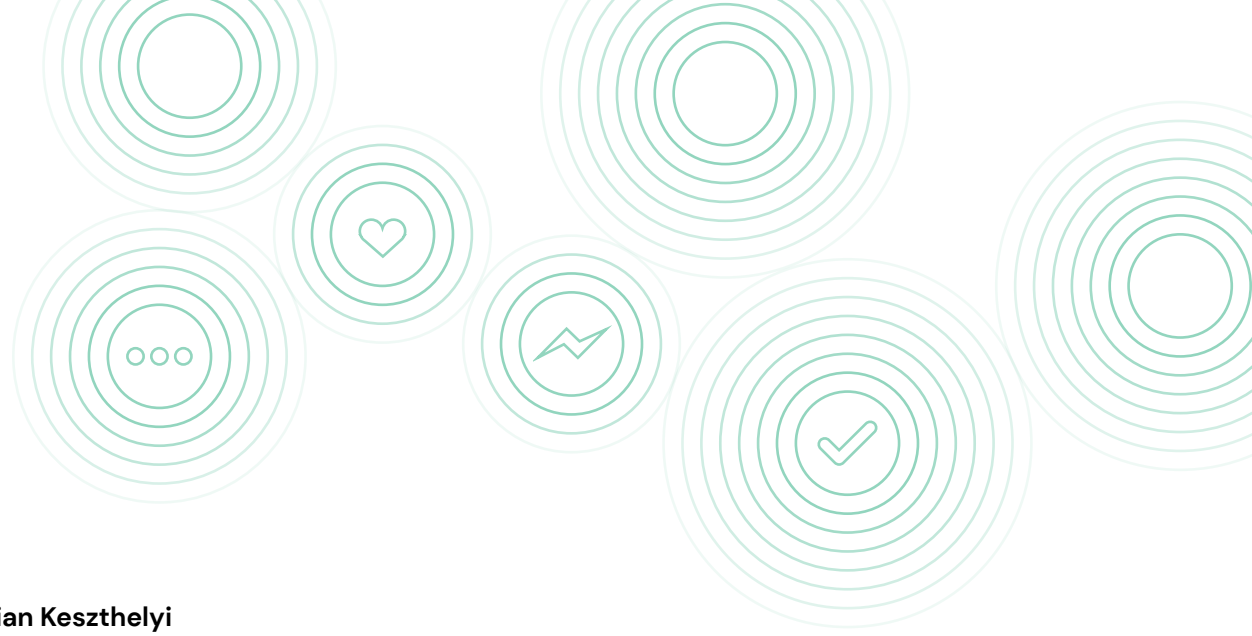
## Emotional vs. Efficient

# What Customers Really Want from AI Chatbots



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*You may already be wound up when you click the speech bubble on a customer service page. Usually, if you need customer support, you are in trouble. But do people want humans to help them, or are they happy with a capable chatbot? Let us CATCH up on the most important findings of an exciting project at the University of Malta.*

Dr Daniela Castillo and Dr Ing. Lawrence Farrugia began the CATCH (Customer Attitudes and Tolerance Towards AI Chatbots) project over a year ago, based on Castillo's Ph.D. research. The project focuses on understanding customer expectations of chatbots before interaction – an area largely left undiscussed in existing literature, which mainly examines post-interaction evaluations. Castillo and Farrugia's research explores whether customers expect chatbots to be empathetic and personalised. They also investigate how anticipations vary based on the complexity of the issue that chatbots are consulted for and how tolerant users are when chatbots fail to live up to expectations. 'Our line of inquiry led us to develop a framework or methodology to help companies rank the characteristics customers expect and tolerate in chatbots,' Castillo tells **THINK**.

Farrugia's background in human-centred engineering design, specifically design for emotion, and Castillo's expertise with chatbots and marketing placed the project on a unique human-centred foundation. Their collaboration led to exciting discussions and compromises – a truly multidisciplinary approach that has been crucial to their research. The two experts realised that, in some cases, customers value the emotional aspects of a service, not just the practical ones. This focus on emotional connotations was integral to their research on chatbot evaluation.

After the systematic literature review, the researchers surveyed 300 customers in Malta to gauge their chatbot expectations. The survey, completed by mid-May, guided the design of an experiment with seven chatbots. 'We're collecting data and anticipate results by the end of September. The final months will focus on data evaluation and disseminating our findings,' Castillo says.

Although the research focuses on the relationship between humans and chatbots, Farrugia's expertise does not concentrate on developing a chatbot but rather on a decision-making approach. 'We're creating methods to help companies systematically choose the best chatbots based on customer expectations. My technical role involves the use of multiple-criteria decision-making techniques. The literature review and survey helped us identify key criteria, forming the foundation for our methodology,' Farrugia says.

## UTILITY TRUMPS MANNERS

Most participants were aged 18–35, suggesting the sample mainly consisted of younger individuals, likely due to the online survey format and the relevance of chatbots to this demographic. Although the project is still underway, the researchers have discovered intriguing findings.

The majority involved in the survey used customer service chatbots powered by artificial intelligence (AI) less than once a month to a few times a month, with slightly higher usage frequency among males. Most participants (74.68%) said they were confident using AI chatbots. However, this trust dropped with age: 88% of the 18–25 age group felt confident, compared to only 55.6% of those aged 46–55.

**Left: Dr Daniela Castillo**
**Right: Dr Ing. Lawrence Farrugia**
***Photos by James Moffett***

But how do people like their chatbots? Participants rated 11 chatbot attributes on a seven-point Likert scale. The top-ranking characteristics of a chatbot that users expect are reliability of information, ease of use, intelligence, helpfulness, and usefulness. The lowest-ranking characteristics were anthropomorphism (likeness to humans) and empathy. Humans do not need C-3PO to look like them so long as he does his job.

'It's quite surprising. If you look at the literature, there is a lot of emphasis on human likeness, on the anthropomorphic nature in general. But our findings suggest that this does not apply to chatbots,' Farrugia says.

Castillo confirmed this tendency. 'Ultimately, customers prioritise chatbots being intelligent, reliable, and responsive over being personalised or empathetic. They are more tolerant of a chatbot lacking empathy than one that is unresponsive or less useful,' she says.

The researchers' findings are intriguing as they go against their literature review's sentiment – granted, chatbots have rarely been at the centre of such scrutiny. 'Reviewing the literature, we found that many studies on chatbots inherit characteristics from the research of service robots – physical machines roaming supermarket aisles, for instance. In those cases, people valued human likeness. As chatbots have no physical presence, it seems these traits are not important,' Castillo says.

Chatbots are fundamentally different from physical service robots, being primarily virtual. Concepts applied to physical robots often do not apply to chatbots, a misalignment that is demography-independent.

Additionally, human expectations of chatbots have evolved. The first chatbots were rule-based, following predefined paths to respond to queries. Today, more advanced AI-based chatbots, like ChatGPT, have raised customer expectations. However, in customer service contexts, many chatbots still function at a basic level compared to sophisticated AI tools.

'The current results show that customers prioritise efficiency and problem-solving over traits like empathy and personalisation. This preference is likely due to the practical nature of customer service interactions, where effectiveness in addressing basic needs takes precedence. It would be interesting to explore how expectations shift between interacting with generic AI tools versus specialised customer service chatbots,' says Castillo.

## GHOST IN THE MACHINE

Another conflicting finding by Castillo and Farrugia, when compared to the literature, concerns transparency. Despite expectations based on the literature review that customers would value knowing if they were interacting with a chatbot or not, participants marked this issue as a low priority. 'This aspect will be further evaluated in our experiment, where participants may face uncertainty about whether they are interacting with a human or a chatbot. The results of this experiment will be interesting to see,' Castillo says.

Customer tendencies towards chatbots are clear. Humans view

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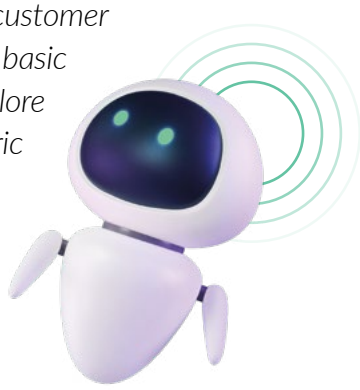

chatbots as machines and do not expect them to exhibit human traits. People interact with such software by prioritising practicality, problem-solving, responsiveness, and reliability. This reflects a clear expectation distinction between interacting with a chatbot and a human customer service agent. In the case of the latter, people expect more manners as compared to source code-based peers.

Your columnist is no stranger to losing footing and falling into philosophical questions that are hard to answer with the exactness of scientific research. But these findings beg a burning question, so let us embark on a wee thought experiment. Is it possible that people are becoming more accustomed to technology and are shifting away from expecting machines to have human-like features or personalities? In the olden times, Microsoft Word had a helper widget that looked like a paperclip with eyes and a mouth, speaking to users through speech bubbles. But today, humans are used to technology and want it to simply and effectively perform its functions. Is there a trend towards valuing functionality over anthropomorphism in technology?

'Yes. One hundred per cent. I completely agree with that premise,' Castillo says. 'In customer service, people often prefer that chatbots focus on solving their issues rather than being empathetic or friendly,' she says. Castillo's findings in both this research and her Ph.D. point towards these tendencies.

'Additionally, younger generations, like my ten-year-old daughter who interacts with Alexa [Amazon's speech-operated virtual assistant technology, similar to Apple's Siri], tend to expect technology to perform tasks without pleasantries. This may suggest a generational shift towards valuing functionality over human-like interactions,' Castillo adds.

Still, as the research comes with valuable insights, the importance of context cannot be ignored either. If someone visits a doctor in hospital, they expect the doctor to be empathetic towards them. Humans usually consult a chatbot when they have a particular burning issue. They want a quick and lasting fix, not empathy.

'In our current experiment, we have a scenario where a user needs to change a flight booking due to a medical emergency. In such cases, empathy from the chatbot might be expected, highlighting the importance of context in determining whether empathetic responses are appropriate,' Castillo concludes.

In some cases, humans prefer robots to remain software and machine-like. This undoubtedly saves developers and manufacturers time and allows them to focus on creating problem-solving technology. Time will reveal whether maintaining a clear distinction between machines and humans will ultimately benefit society as our interactions with non-human entities continue to increase. T