

Simulating Stakeholders

"I prefer talking to real people to get a better view of the person and their behavior"

Design Students' Acceptance of and Empathy Towards LLM-Based Roleplay for Design Interview Education

Background

There is great potential for **GenAI** in a **simulation-based setting** in education. But there's only little research on **pedagogical implications** of chatbots, but this is very important if it could take over real people.

This study is at the **IDE faculty** because it is more closely related to broader society than other engineering programs.

Acceptance of the chatbot and **perceived empathic connection** to the chatbot are tested because they're important when designing for people and could be lost when using.

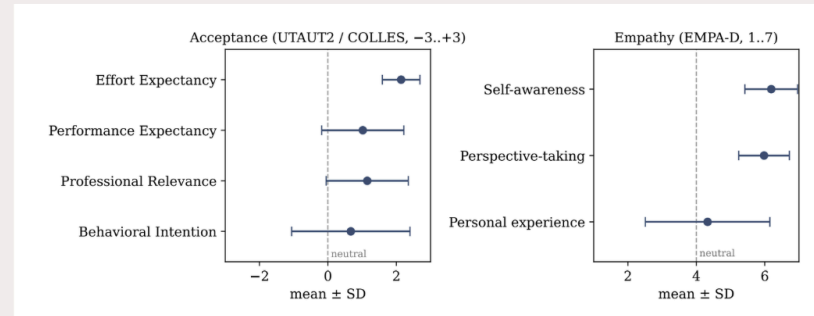
Methodology

A **user study** was conducted because both acceptance and perceived empathic connection are subjective and require self-report. Instruments: adapted UTAUT2 + COLLES for acceptance and EMPA-D for perceived empathy in interaction to create one questionnaire.

Participants interviewed **Lina** – a chatbot simulating a stakeholder in a high-stakes design scenario – for 15–30 minutes, then completed the questionnaire with open-ended follow-up questions.

Quantitative data: mean, SD, median, and Cronbach's α .

Open responses: reflexive thematic analysis (4 themes).



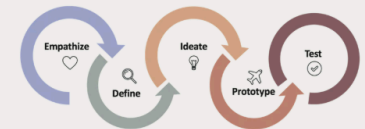
Construct-level results plotted and as a table

source	construct	n items	n	mean	sd	median	cronbach alpha
UTAUT2	Performance Expectancy	5	9	1.020	1.200	1.400	0.870
UTAUT2	Effort Expectancy	4	9	2.140	0.550	2.000	0.780
UTAUT2	Behavioral Intention	1	9	0.670	1.730	1.000	–
COLLES	Professional Relevance	3	9	1.150	1.200	1.330	0.790
EMPA-D	Perspective-taking	6	9	5.980	0.740	6.000	0.910
EMPA-D	Personal experience	2	9	4.330	1.820	3.500	0.960
EMPA-D	Self-awareness	3	9	6.190	0.770	6.000	0.810

"Design a product or service for a primary school to support their children in their education. The design should help some children to learn more effectively and remove barriers to learning."

The design statement in the exercise

Steps in the IDE design process



Findings and Conclusion

- Participants found the chatbot **useful** and **easy to use**, but showed low intention to adopt it voluntarily
- Some **misunderstood** the chatbot's purpose
- Perceived empathy scored high, yet participants noted **the chatbot felt unlike them** – possibly because empathy is explicitly taught at IDE, or because of limitations in the chatbot itself

