

Cover page.

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Title of Research Paper.

Longitudinal study on Social and
Emotional use of AI conversational Agent.

Authors: Motil Chandra, Javier Hernandez, Gonzalo
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Ann, Shaked, Jina Suh.

mostly Microsoft Research & University

Georgia

link: arxiv.org/abs/2504.14112

The summary is review by the team members

1. Shailesh

2. Subhranshu

3. Srinivas

4. Dulal.

If the review comments are incorporated.

1. The problem and the key discoveries.

Before this study, we knew that people like trying out new chatbots. But we don't analyse after the novelty wore off. Do people keep talking to them. Could a ~~per~~ person actually become friends with Chatbot?

This study focuses on finding out how the relationship between a person & chatbot changes over a longer period of time (four weeks), especially when talking about feelings & personal life.

What They Discovered: Week by week summary

The study shows a clear pattern of how the relationship changed over the 4 weekly

week 1

* Curiosity & testing

Everyone sent lots of messages.

People tested the limits, asking questions like are you a bot? or tell me a joke

The conversation is shallow & playful.

Week 2 : The Novelty Fades.

- * The number of messages dropped sharply
 - * Many stopped using chatbot regularly
- However, the user who stayed, started shifting gears from testing to talking about their day or even simple problems.

Week 3 : Getting Personal.

- * This was a turning point. Users began sharing deeply personal information & secrets.
 - * Treated chatbot like a person, saying thank you for its advice
 - * apologising if they were rude
- A one sided friendship was forming.

Week 4 : A trusted confidant.

- * By the final week, the remaining users saw the chatbot as a trusted, non-judgmental friend
- * They relied on for emotional support.
- * felt safe to discuss confidential matters.

How the study was done

Q)

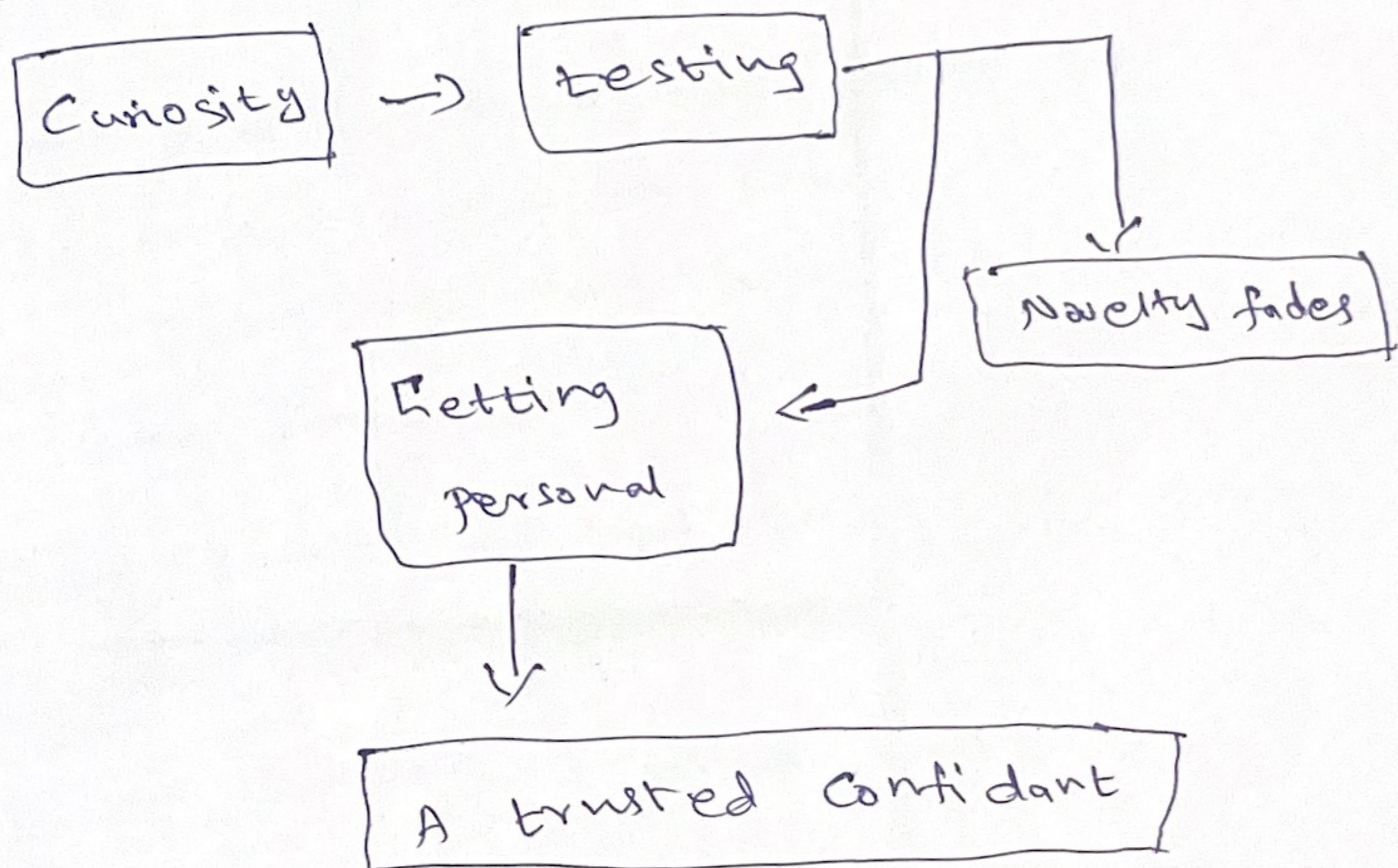
Participants: 57 university students

chatbot: CareBot. The chatbot was not a real AI. The researchers used a "wizard of oz" trick. This means when a student sends message, a hidden human was replying. This trick ensured chatbot gave perfect, caring answers.

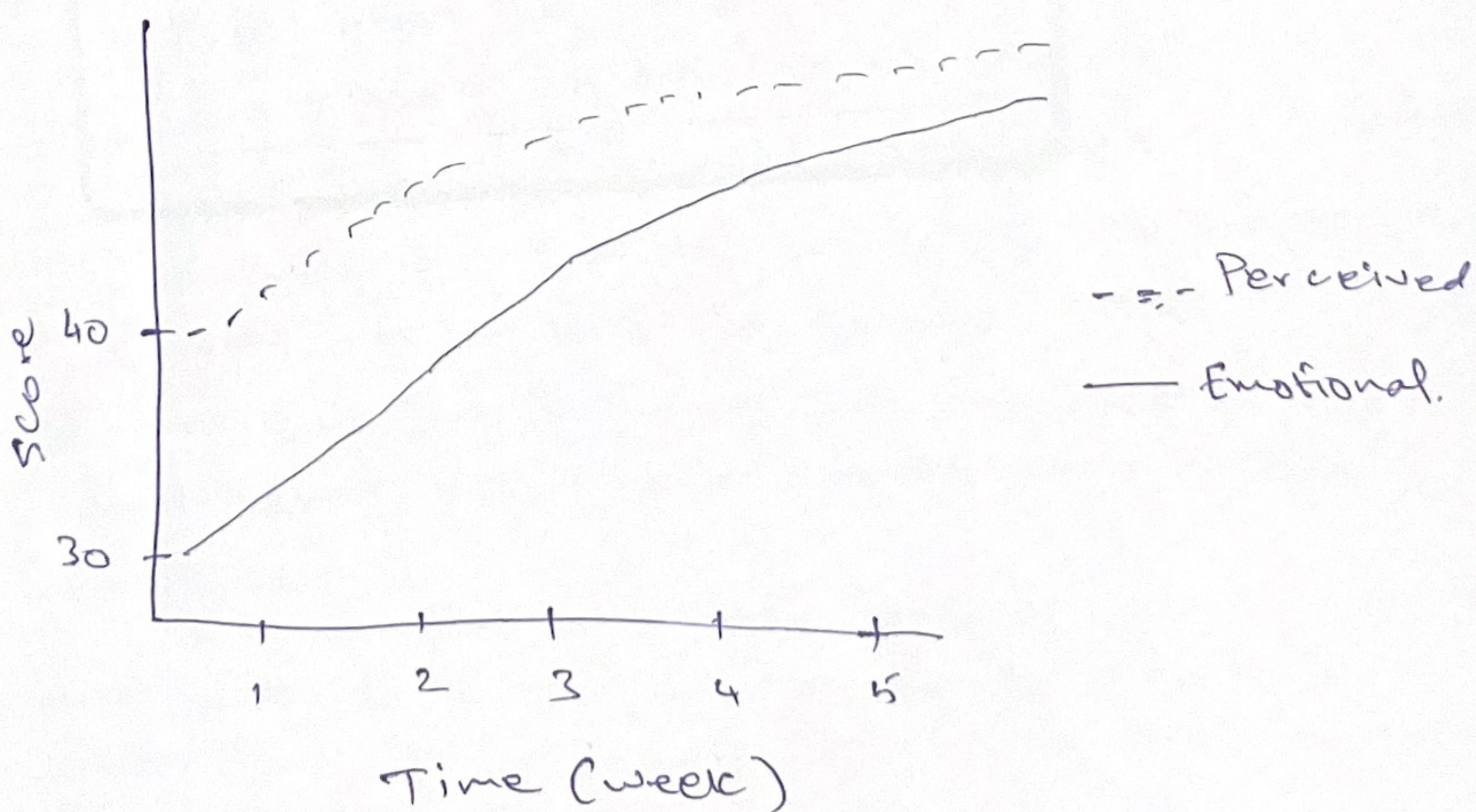
How they collected Information:

- They gave everyone surveys at the start & end of the study.
- Users filled a short diaries about their chats.
- The researchers saved & read all chat messages to see what people talked about.

3. Picture of the study
Emotional attachment will be growing over time & wage.



Change in Emotional Attachment & Perceived
Empathy over time.



The picture shows how Personal conversations grew over time & confidence built.

Evaluation.

4.

Good

- * It is a long study, most studies ~~one~~ look at just single conversation thread. By lasting 5 weeks, this showed how human & AI relationship grow over time.
- * It focused on real conversation content and not on numbers.

Weakness or Limitation (critical view)

- * The chatbot was not real AI. It was wizard of oz trick. This is more of how people dealt with human thinking it's AI
- * Five weeks are lesser too.
- * The people in the study are not like every possible categories. They were all students
- * Students are open to technology. So the results might not be true for general public
- * The quit people were not included in the final results. This makes results more positive.

Conclusion:

This longitudinal study presents compelling evidence that people can & do form emotionally meaningful relationships with AI chatbot. People like non-judgemental conversation the AI brings.