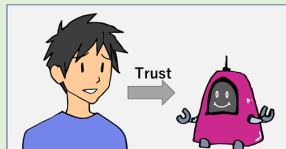


Abstract

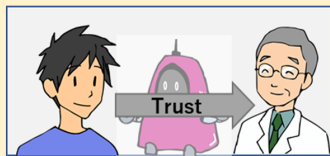
For mental health professionals (MHP) to understand patients' mental health, it is critical that patients engage in deep self-disclosure. However, people tend to avoid revealing their vulnerabilities for fear of being judged by others. Chatbots show great potential in this domain because prior research has shown that people tend to disclose symptoms of depression more truthfully when talking to a chatbot than when talking to a human interviewer. Our work extends this prior work by proposing a **novel approach to facilitate people's self-disclosure to MHPs through chatbots**. We designed, implemented and evaluated a chatbot that elicits deep self-disclosure and promotes trust-building between users and the MHPs. Results show that people were more willing to share their self-disclosure content with MHPs through the chatbot, which suggests the promise of our approach.

Issues of isolation and loneliness

Prevalence of communication technology → increase of **weak relationships**, Isolation, and loneliness

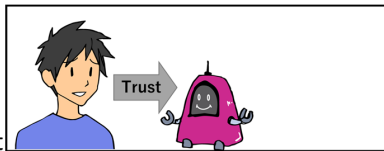


By connecting users with real experts, we aim to create an environment where it is easy to ask for help.

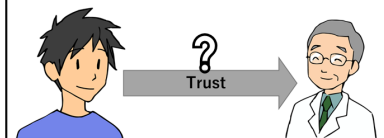
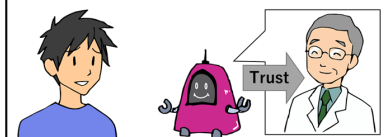


Trust transfer function

Feature 1
Develop trust with Chatbot
Reciprocal disclosure
between users and chatbot

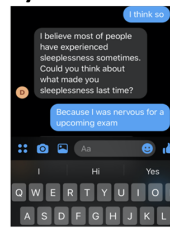


Feature 2
Transfer trust to Doctor
Chatbot talks about **good experiences with the doctor**



User Study and Evaluation

User Study



47 participants, 4 weeks
15 minute daily chat

One-hour Online interview

Condition ① : Only **Feature 1**

Condition ② : Both **Feature 1** and **Feature 2**

Trust in chatbot :
Condition ① ≙ Condition ②

Trust in MHP :
Condition ① < Condition ②

Participants in Condition ② were **motivated to share contents of their disclosure with the doctor.**

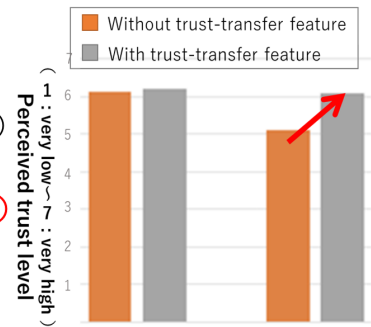


Fig: Questionnaire results

Showed potential for chatbot to transfer trust among humans



References

[1] Y. Lee, N. Yamashita, Y. Huang, "Designing a Chatbot as a Mediator for Promoting Deep Self-Disclosure to a Real Mental Health Professional," in *Proc. ACM Hum.-Comput. Interact.* 4, CSCW1, Article 031, (CSCW'20), ACM, pp.1-27, 2020.

[2] Y. Lee, N. Yamashita, W. Fu, Y. Huang, "'I Hear You, I Feel You': Encouraging Deep Self-disclosure through a Chatbot," in *Proc. the 2020 CHI Conference on Human Factors in Computing Systems (CHI '20)*, ACM, pp.1-12, 2020.

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