A simulation-based training tool for child helpline counsellors

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Demos

A simulation-based training tool for child helpline counsellors

Mohammed Al Owayyed, Myrthe Tielman & Willem-Paul Brinkman

Background: Child helplines provide a safe and confidential platform for children to reach out and receive support from trained counsellors. Helplines typically operate through two channels: voice calls or online text chats. New counsellors are usually trained through role-playing, where a counsellor takes on the role of the child in the interaction. However, this approach is resource-intensive and time-consuming. To address these challenges, we developed a simulation-based tool designed to train counsellors in a controlled, interactive environment. The tool focuses on teaching the application of the five-phase model, a communication protocol that guides counsellors in keeping conversations child-centered. The phases include: building rapport, clarifying the child's story, setting the session's goal, working towards the goal, and rounding off the conversation.

Demo: The main component of the tool is a chatbot-based training system that mimics a child contacting a helpline through a chat interface, which we call Lilobot. Lilobot integrates the Belief-Desire-Intention (BDI) model to enable realistic interactions with children facing challenges. The premise of the BDI model is that the simulated child has sets of beliefs (e.g., "The helpline can solve my issue"), which change based on the counsellor's responses. These beliefs, in turn, influence the child's desires (i.e., goals), which guide Lilobot in selecting an intention (an action). We developed 12 scenarios, all centered around bullying, with variations in two aspects: the setting (e.g., being bullied at football practice or during a piano class) and a misconception about the goal (e.g., asking the helpline to contact the school or seeking revenge).

In this demo, the counsellor's task is to counsel Lilobot by applying the five-phase model with the interactive scenario. If they deviate too much, it likely that Lilobot gets frustrated and ends the conversation. The demo also includes guided tutoring elements since simulation alone is insufficient for fully understanding the consequences. This tutoring is achieved through feedback elements during and after interactions, enabling counsellors to construct knowledge while reinforcing understanding of the five-phase model. Feedback during interactions is provided at two levels: a lower level (e.g., guidance on what the counsellor should say next or how the child is currently feeling) and a higher level (e.g., the counsellor's progress in the current phase or the child's overall goal). Feedback after interactions explains why the child left the conversation and offers suggestions for improvement.

Activity: Conference participants can role-play as counsellors-in-training by interacting with Lilobot and receiving tutoring feedback. The demo will run on a laptop, requiring participants to engage in text-based conversations and apply the five-phase model.

Unlocking Research Anytime: A Demonstration of The Twente Intervention and Interaction Machine and its Latest Developments

Iris ten Klooster, Elvis Vrolijk, Teodora Spirova & Jan-Willem van ’t Klooster

Background: Traditional research methods such as self-report questionnaires are often limited by recall bias, limited ecological validity, and difficulty in capturing dynamic changes over time, making them insufficient for capturing the complexity of human behavior and health-related outcomes in real time. Therefore, new approaches such as Ecological Momentary Assessment (EMA), experience sampling and wearable tracking have been introduced. However, effectively measuring and engaging test subjects at a distance using multiple modalities remains a significant challenge. Therefore, the need for scalable solutions that support interventions, longitudinal studies, EMA studies and mobile questionnaire has