



Can AI teach people social skills?



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LOWER WORK SATISFACTION

REGULAR SESSIONS WITH THERAPIST

LOWER LIFE SATISFACTION

EFFICIENT

INEXPENSIVE

6 HOUR A DAY OF TAKING CARE

LOW SOCIAL SKILLS

WORSE JOB OPPORTUNITIES

INTERACTIVE

AVAILABLE 24/7

EXPENSIVE THERAPY

AUTISTIC CHILD

LOWER WORK EFFICIENCY

PRIVATE

PARENTS' MENTAL HEALTH PROBLEMS

Solution

The Cognito is a platform for social skills learning. Its exercises are fully automated and powered by AI, enabling users to work on their own. They can train without pressure from others, getting constant feedback regarding the exercise execution and possible improvements. The platform has been developed with psychologists and neuroscientists.

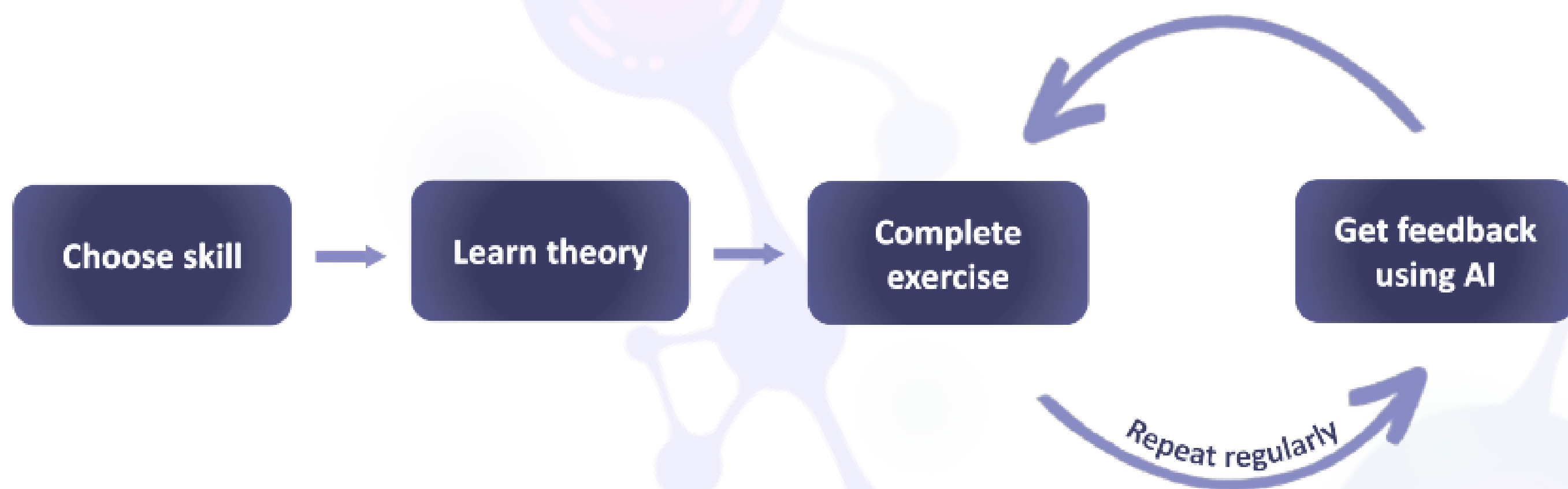


Figure 1: The schema of the AI-based solution for learning social skills. The user can choose a skill to learn, then read the theory and finally enter the feedback loop. The feedback loop consists of completing the exercise and receiving personalized feedback from the AI models – what has been done right or wrong and why, as well as appropriate tips on how to improve.

Approach

Social skills can be decomposed into several factors. The 3 main channels of communication are **facial expressions**, **voice intonation** and **said words**. We are focusing on all of them, but we want to also increase empathy and develop proper reactions to social situations.

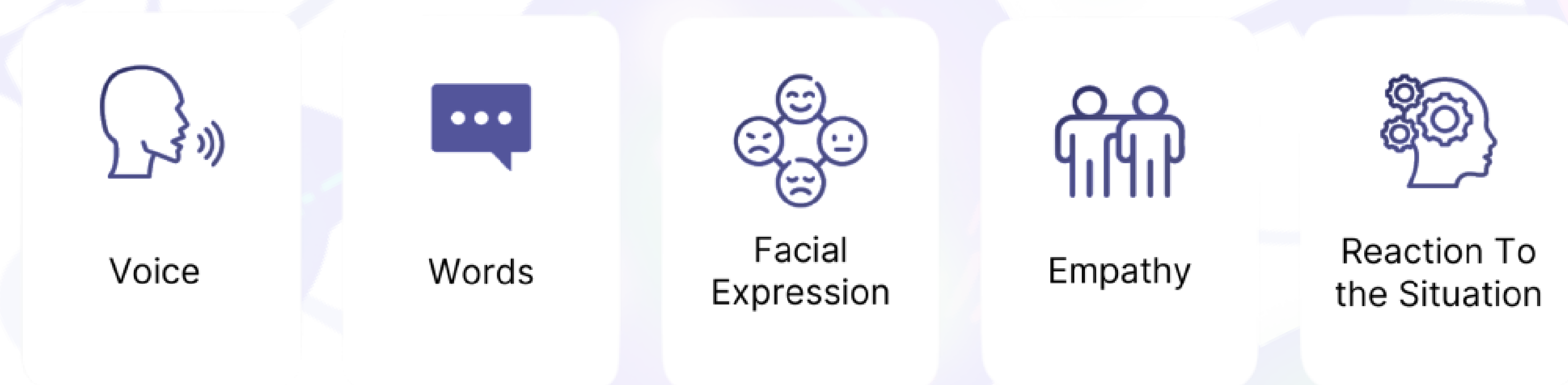


Figure 2: The main focus areas of The Cognito.

Facial expressions

One of the 3 main communication channels is facial expressions. Our AI models evaluate them and explain to the user which parts of the face reflect the given expression correctly, what should be improved and how. It is crucial to present an appropriate facial expression given the situation, yet very often people are not properly showing it and are not even aware of their problem.



Figure 3: An example of facial expression evaluation. The face on the left presents an incorrect expression, thus orange and red arrows appear to guide the user. The face on the right is appropriate – all of the markers are green and it does not require any change.

Voice decomposition

Many people tend to speak with a flat voice intonation and thus lose information. We help our users develop a proper and conscious voice by decomposing it into 8 emotions. Users can visually analyse their speech and adjust accordingly. This is helpful for everyday conversations, training public speaking and presenting.

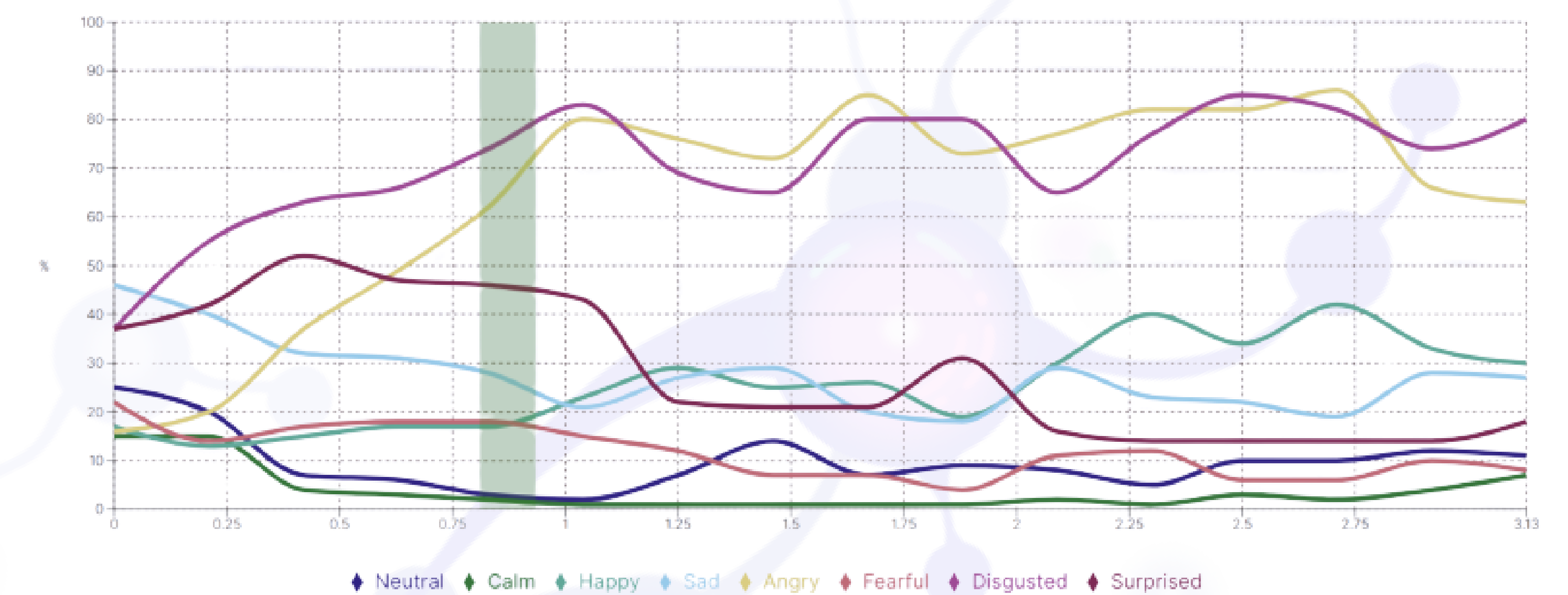


Figure 4: An example of the decomposition of voice and part of the feedback loop. The user said the phrase putting anger and disgust into the voice, not necessarily consciously. They can now listen to it again and see how various parts of it could be understood by others.

Scenario walkthrough

The chatbot exercise gives users a trial walkthrough through uncomfortable situations and finding the most appropriate behaviour. The bot judges whether the response is appropriate given the context, explains why it is or is not appropriate, and suggests other approaches. The exercise helps in preparation for uncomfortable, unpleasant or non-standard situations and skilfully handling them.

Michael: I heard that the task you were assigned took twice as long as expected. That caused some significant delays and cost us a lot of money. What do you have to say about that?

You: Michael, the job took twice as much as expected, because you gave me several additional tasks and requirements.

APPROPRIATENESS: This is answer is appropriate. ✓
 EXPLANATION: User's response was appropriate because he provided a clear explanation for why the task took longer than expected. By stating that Michael gave him additional tasks and requirements, User is asserting that he was not solely responsible for the delays and increased cost. This response helps to clarify the situation and opens up the possibility for a discussion about the distribution of responsibilities and potential solutions.

Michael: That might be the case, but you should have discussed it with me before proceeding. From now on, make sure to come to me first with any queries or changes that might affect the timeline or the budget. This is not acceptable behavior and I won't stand for it again. Is that clear?

You: Send

Figure 5: An example scenario to go through. Here, the user is late with a task, because the manager (Michael) gave him or her several new responsibilities and requirements. Michael is a demanding, and not an understanding person. The user can go through the conversation in any way they want and our model will evaluate the responses, explain their social meaning and, if necessary, suggest a different approach.

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