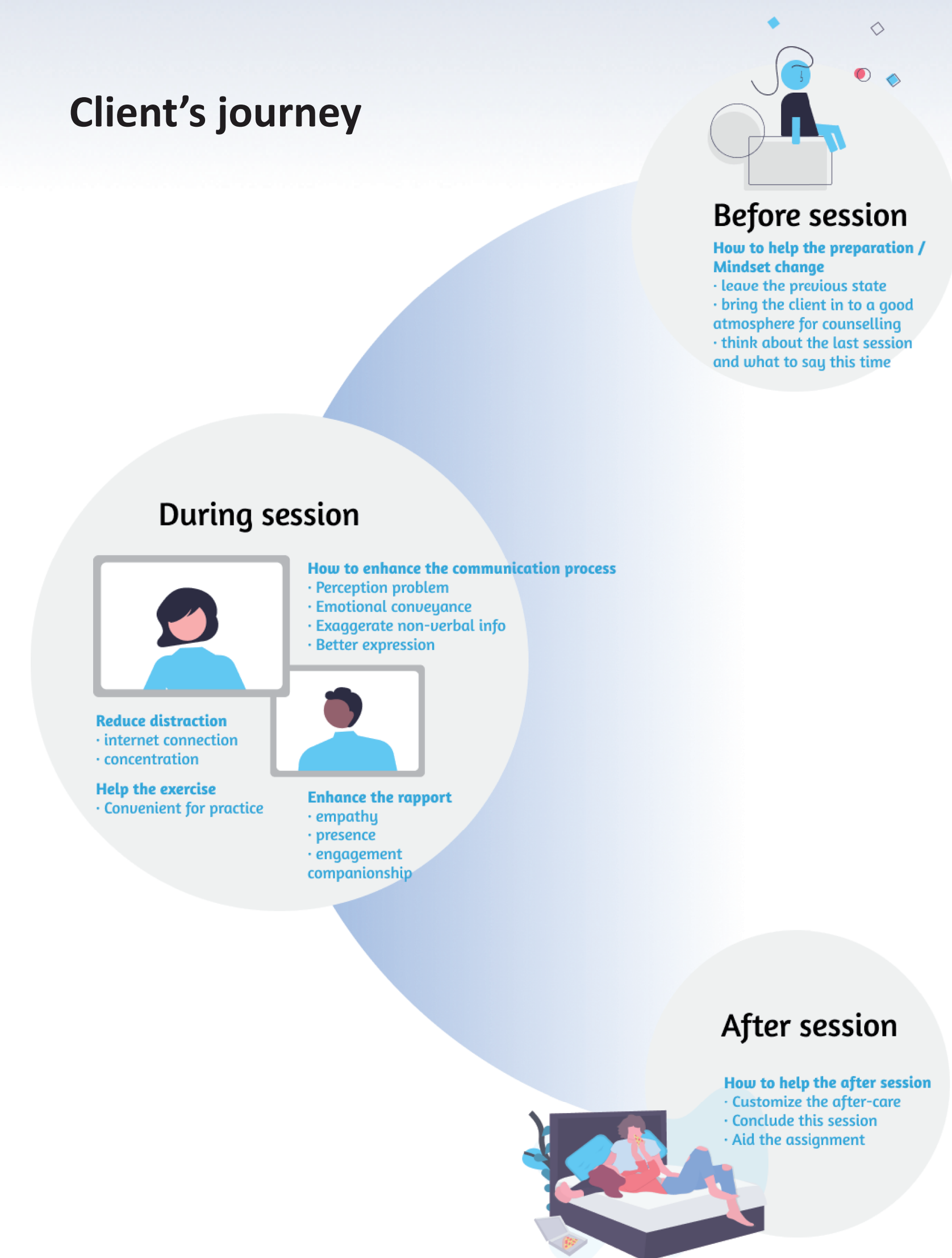


# Visualization to Enhance Communication in Online Psychological Counselling

An AI-assisted system to enhance the user experience

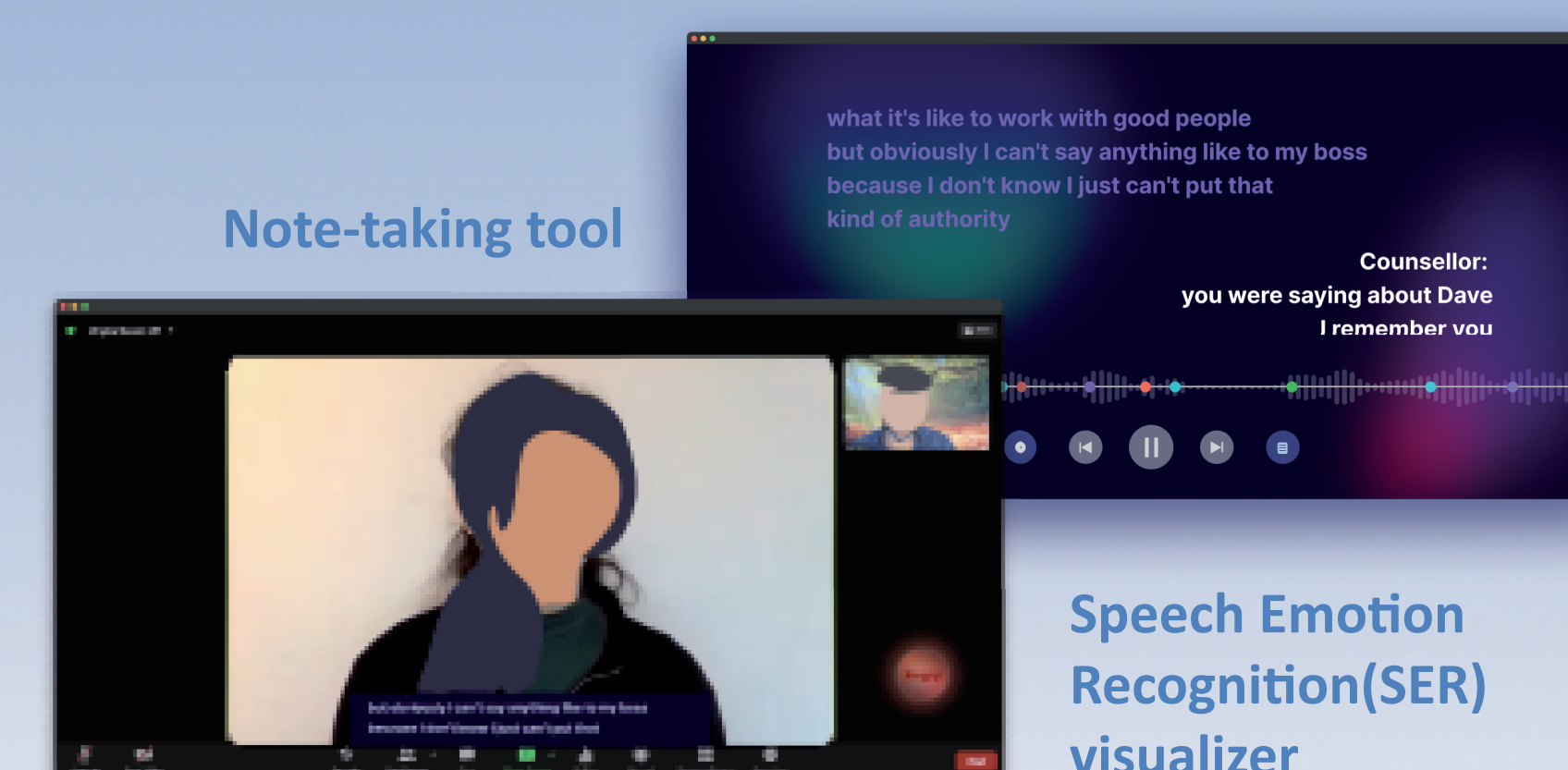
## Client's journey



## Service for client



## Service for counsellor



## Background

How to enhance communication between people is always an interesting topic in the design area. After going through the research, the author set the specific context for online counselling due to the increasing demand for online counselling during the COVID-19 pandemic. The online format limits a lot of non-verbal information like body language, vocal tones, facial expressions, and posture (Keynan et al.) that is only available in face-to-face communication.

This limitation is critical as counselling clients have broad expectations for assistance in various life aspects (emotional, social, vocational, educational, and physical) (American Psychological Association, 2008) and the effectiveness of counselling hinges on the relationship and trust between the counsellor and the client, making effective communication especially vital in the online counselling environment.

## Research

The current online counselling service providers were studied to understand how people access relevant services. After conducting interviews with clients and counsellors experienced in both online and in-person counselling, it became evident that there were notable differences in the counselling process phases: before, during, and after the session. The during-session and after-session phases were selected for focused attention since the during-session is vital for communication between the parties, and the client requires a mental shift to effectively transition from this phase after the counselling.

## Design

Following the creative sessions and initial testing, the design vision was established: enhancing interactivity and connection in online counselling by augmenting sensory perception between the client and the counsellor.

A system for monitoring and generating content assisted by artificial intelligence was conceptualized. The system could monitor the client's emotion and convey it to the counsellor, use the generated content to improve review and reflect activity, and help them better foster interaction and connection between the involved parties. The envisioned system aims to:

1. Enhance the client's perception of self-emotions and counsellor's engagement
2. Deepen the counsellor's understanding of the client's emotions, reduce their workload and improve engagement
3. Provide effective session reflection for the client, a unique advantage of the online system.

The feasibility and limitations were analyzed in terms of the emotion recognition technology and ethical issues. This concept could be integrated with current online video platforms or online counselling service websites, and the design of this work could provide valuable insights and opportunities to enhance the entire online counselling process and potentially extend its benefits to other online communication environments.

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Visualization to Enhance Communication in Online  
Psychological Counselling  
31/10/2023  
Integrated Product Design

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