AI Life-Coaching Balancing Care of the Self & Discipline: Case Study of Laika, AI Robot Dog Designed for Long Space Missions

This project, conducted as a bachelor thesis at the University of Twente's Industrial Design Engineering program, in collaboration with the University of Saxion's Ethics and Technology Department, delves into Laika, an AI-powered robot dog designed for space missions, with a focus on understanding its ethical implications and impacts on balancing "Care of the Self" and "Discipline". The research is driven by two central questions: How are the ethical implications and impacts of AI life coaching perceived by clients and users concerning their self-care practices and disciplinary influences? And how can Laika, an AI life-coaching robot for space travellers, be ethically and effectively redesigned to enhance Care of the Self while balancing disciplinary functions?

To address these questions, an educational card game was developed. This game was meticulously created based on insights from desk research, as well as qualitative and quantitative data collection. The objective of the game is to simulate the interactions among three key roles: Laika, the astronaut, and mission control. The gameplay revolves around balancing the completion of tasks (Discipline perspective) with the need for self-care (Care of the Self perspective).

In the game, players assume the roles of Laika, the astronaut, and mission control. Laika's role is to support the astronaut in maintaining well-being while completing mission tasks. The astronaut must manage their health and work responsibilities, and mission control, sets the baseline for the mission and provides guidance and support throughout the process. Players use a deck of cards that represent various scenarios, tasks, and events, each affecting the balance between task completion and the astronaut's well-being.
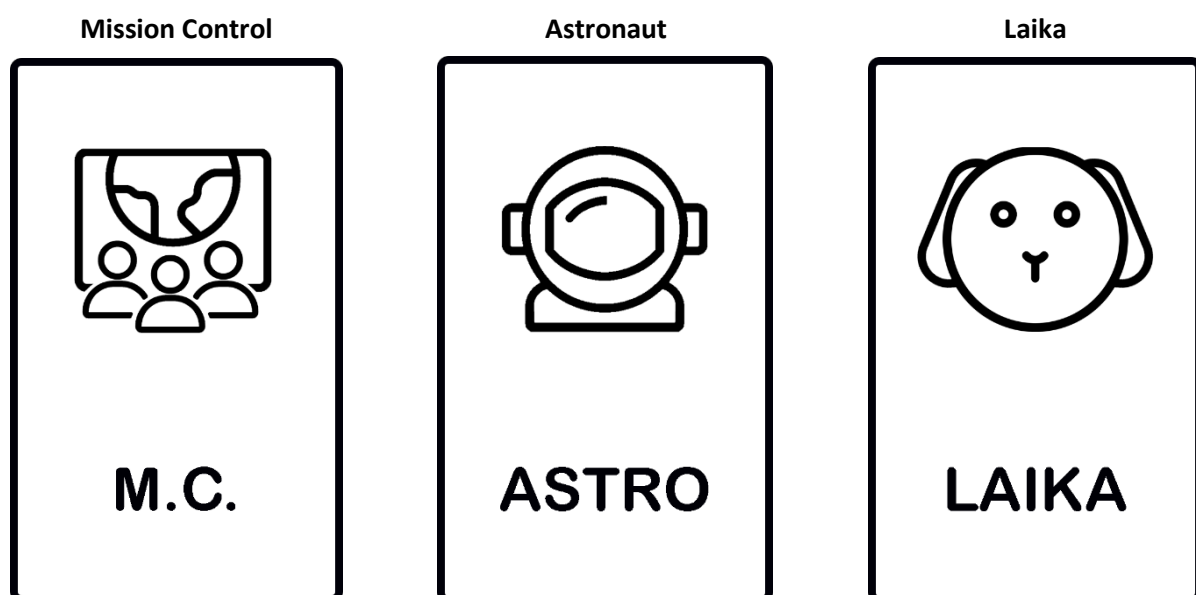

Figure 1 Characters of the Card Game

Following the development of the game, four participants played it through two rounds each. Afterwards, they completed a survey to assess its effectiveness as a tool for understanding the interactions between these roles and the balance between Care of the Self and Discipline. The survey aimed to evaluate whether the game successfully illustrated these dynamics and provided useful insights into the role of AI in life coaching. The feedback revealed that the game effectively highlighted the complexities involved in managing well-being and productivity. Participants found the game engaging and informative, though opinions varied regarding the mechanics and Laika's role within the game. Some participants suggested that refining the game's mechanics could improve how it represents the balance between the different elements.

This educational game serves as a foundational step in exploring and understanding the relationship between users and AI technologies like Laika. It offers valuable insights into Laika's role and provides a basis for future redesign projects. Additionally, the game has potential applications in educational settings, where it can help illustrate the complexities of AI life coaching and its impact on well-being and productivity.

Overall, this project demonstrates that educational games can be a tool for exploring and improving AI systems like Laika. Simulating interactions and relationships within a game format offers meaningful insights for designers that can guide future redesigns and enhance our understanding of AI life coaching technologies.