

## **Title:** Speculative AI-powered visibility practices through collaboration technologies

### **Project Overview:**

In our everyday remote work, we use several types of tools to facilitate the process of collaborating with others from a distance. These technologies affect the way we are seen by our colleagues and managers and how we manage our impression and become visible using digital tools that potentially leads to professional and social judgments.

With the recent AI boom, these tools are becoming more AI-powered everyday. This graduation project focuses on developing speculative design of AI-powered collaboration technologies (Teams, Miro, microsoft 365, etc.), specifically looking at how large language models (LLMs) and GenAI systems could influence visibility and impression management at workplaces. The aim is to create alternative, near-future scenarios that explore the role of AI in shaping the way workers form impressions about each other through such technologies at work and manifest them through tangible interactive prototypes.

### **Project Goal:**

By leveraging speculative design methods, the project employs speculative design methods to examine the impact of AI on workplace visibility, highlighting opportunities and risks such as increased efficiency and transparency against concerns about privacy, data security, and ethical implications. Specifically, it explores how AI shapes, mediates, and facilitates impressions in the workplace. To achieve these aims, the project will create diegetic prototypes, mockups, and speculative interactions that reveal value tensions within this context.

### **Preferred Project Phases (flexible):**

- 1. Literature overview:**  
Scanning the current state of collaboration technologies (groupware), AI's role in workplace environments, and the concepts of visibility and impression management in the workplace. Narrowing down the design methodologies, by looking at case studies and literature of speculative design methodologies particularly those relevant to the design of alternative presents, to highlight socio-ethical value tensions.
- 2. Concept Development:**  
In this phase, the student will craft speculative scenarios that illustrate how AI-driven tools might mediate professional interactions in the near future. Key elements will focus on how AI could either facilitate or disrupt impression management through work output assessment, meeting transcription, emotion detection. More than human approaches with focus on agency of things are also encouraged as an interesting possible direction.
- 3. Prototyping:**  
Based on the developed scenarios, students will create on-screen prototypes, mock-ups that visualize their speculative human-AI interactions. These prototypes don't need to be fully functional but should effectively communicate the core

concepts of the imagined interactions in the intended future scenarios. Emphasis will be placed on user interfaces, interaction moments, and how the AI integrates into existing interactions through use of collaboration software.

4. **Empirical Testing:**

A short empirical phase will involve user testing or interviews to gather feedback on the prototypes. This phase will not aim for statistical validity but will offer qualitative insights into how users perceive the speculative technologies and how effective the prototypes can provoke, raise questions, and trigger meaningful discussion. This will help assess whether the designs provoke meaningful reflection on the potential future of AI-mediated work environments.

5. **Final Presentation:**

Students will prepare a final presentation consisting of their speculative design prototype, supported by a reflective report that explains the development process, underlying theoretical frameworks, and the findings from the empirical investigation.

**The graduation project best fits with students who have:**

- Familiarity with speculative design and human-centered design methodologies.
- Understanding of AI technologies, especially large language models.
- Ability to balance creativity with critical analysis, ensuring that quality speculative designs that remain highly plausible with regards to current AI capabilities.
- A solid understanding of on-screen interaction, and visual design.
- Interest in conducting interview studies to gather user insights.

**Possible expected outcomes:**

- Speculative design prototypes/mock-ups.
- Qualitative insight report (Interview study).
- Final presentation and reflective report.

**Candidate Requirements:** This project is suited for masters students (Preferably DFI students but open to others) who have experience or strong interest in AI, speculative design, human-computer interaction (HCI), AI-powered product design, more than human approaches.

## How to apply:

The graduation project will be co-supervised by Dr. [Nazli Cila](#) and [Mahan Mehrvarz](#). If you are interested in this assignment, please send an email to [m.mehrvarz@tudelft.nl](mailto:m.mehrvarz@tudelft.nl) alongside with a CV, a Portfolio (or demonstration of prior design work), and a letter of interest on why you want to have this graduation brief for your master thesis project. The brief is related to ongoing research within AI Futures Lab.

## About AI Futures Lab

AI is increasingly widespread but poses a challenge for designers: it is complex, entangled, plural and indeterminate, and it changes over time. Harms that can result from poorly

designed AI systems are both subtle and large scale, and socio-legal contexts evolve in response to the actions of computational systems. New understandings of rights and justice and flexible responses to a changing world are needed, which at the same time support human agency, human rights, wellbeing and justice.

The AI Futures Lab will address the current knowledge gap by combining Industrial Design Engineering (IDE) post-industrial design research and methodologies. These will be applied to machine ethnography, to experiential AI and to in-the-wild AI prototyping using Technology, Policy and Management (TPM) methodologies of comprehensive engineering and design for values. We will explore configurations of people and AI around rights and justice, aiming to expand both scientific knowledge and public understanding of AI capabilities. The empirical research focus of our lab extends from remote work to robotics and security. Our goal is a tangible and vibrant set of prototypes, experiences and theories that map out ways in which design can be engaged to deploy AI and machine learning in support of rights and justice. By prototyping new relationships 'WITH AI' that are respectful of agency, rights, and justice, we will open up spaces for new developments 'IN AI'.