THESIS/INTERNSHIP PROPOSAL

Subject:	**Exploring social expectations and acceptance towards novel interactive technologies in the context commensality**
Supervisors and Co-supervisors:	**Radoslaw Niewiadomski** **Hunter Fong** **Magda Igras-Cybulska**
Field of research:	Social Media, Sentiment Analysis
Motivations and general objectives:	Technologies designed to support solo eaters by providing them with company represent an emerging design space. However, not much is known about the expectations of potential users, nor about the social acceptance of this interactive technology. Existing methods used to assess how such technologies are perceived are usually based on questionnaires [1], a method that comes with many limitations. Recently, alternative approaches have emerged, consisting of analyzing social media content presenting the specific use-cases [2]. This method has several advantages, as it allows collecting feedback from a wide audience and can be used even for speculative prototypes (that is, systems that are not yet available). The aim of the thesis is to explore public reactions to artificial commensal companions by analyzing social media comments on a post depicting such agents used in concrete daily life. Such analyses can be performed in at least two different ways [2]: one is manual coding of the social media comments, and the other is the use of sentiment-analysis tools. Such tools are software that automatically detect the affective meaning of text (e.g., the text is positive, neutral or negative). The thesis is composed of the following stages. First, the student will prepare a set of materials about the immersive speculative VR system for commensality. This stage may be supported by the use of generative AI to create engaging video content illustrating the use of the virtual agent in a commensal context. Next task consists of posting and promoting the previously prepared materials online on well-known social media in order to collect user comments. In the final stage, the student will analyze the collected comments using existing sentiment-analysis tools such as VADER. The output of this analysis should clarify the social acceptance of this technology and its users.

	The student will have the opportunity to develop innovative solutions and contribute to scientific publications.
Required skills:	• strong interest in social media • basic knowledge of programming and visual generative AI
Work Plan:	The student is expected to carry out the following tasks: • conduct a literature survey on novel techniques of data collection in affective computing • prepare materials (videos) about the immersive VR system for commensality, as well as post and promote them online • perform the analyses collected comments using existing sentiment-analysis tools
References:	[1] Hunter Fong, Radoslaw Niewiadomski, and Magdalena Igras-Cybulska. 2025. Instagram Reactions to a Virtual Dining Companion: Qualitative Coding vs. Automated Sentiment Analysis. In Proceedings of the 16th Biannual Conference of the Italian SIGCHI Chapter (CHItaly '25). Association for Computing Machinery, New York, NY, USA, Article 34, 1–9. https://doi.org/10.1145/3750069.3750352 [2] Albana Hoxha, Hunter Fong, and Radoslaw Niewiadomski. 2024. Do We Need Artificial Dining Companions? Exploring Human Attitudes Toward Robots in Commensality Settings. In Companion Proceedings of the 26th International Conference on Multimodal Interaction (ICMI '24 Companion). Association for Computing Machinery, New York, NY, USA, 122–128. https://doi.org/10.1145/3686215.3686220 [3] Hutto, C., & Gilbert, E. (2014). VADER: A Parsimonious Rule-Based Model for Sentiment Analysis of Social Media Text. *Proceedings of the International AAAI Conference on Web and Social Media*, *8*(1), 216-225. https://doi.org/10.1609/icwsm.v8i1.14550
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