

Bachelor Thesis: Chat vs. Avatar — How Visual Embodiment of an AI Shopping Assistant Affects Consumer Perceptions

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Start date: as soon as possible

Motivation and Goals

LLM-based shopping assistants are becoming a standard feature of online stores, yet they are typically presented as plain chat interfaces. Research on anthropomorphic design suggests that giving such agents a visual embodiment — for example, a human-like avatar — can increase social presence and trust, but findings are mixed, and most of this research predates modern LLM-based assistants. It therefore remains unclear whether visually embodying today's AI shopping assistants actually improves the shopping experience or leaves consumer perceptions unchanged.

The goal of this bachelor thesis is to empirically compare a chat-only AI shopping assistant with an identical assistant represented additionally by a visual avatar. Participants complete shopping tasks in a simulated web shop with an integrated LLM-based assistant (a basic web shop with AI-integration is available and will be provided to the student) and interact with both versions in a within-subjects design. The study should examine how visual embodiment affects constructs such as trust.

Required Skills

- Strong interest in (generative) AI and human-AI interaction
- Good English language skills
- (AI-assisted) programming skills (e.g., Python, JavaScript) for adapting the existing prototype

Starting Literature (Topic)

- Qiu, L., & Benbasat, I. (2009). Evaluating anthropomorphic product recommendation agents: A social relationship perspective to designing information systems. *Journal of Management Information Systems*, 25(4), 145–181.
- Seymour, M., Yuan, L., Riemer, K., & Dennis, A. R. (2024). Less artificial, more intelligent: Understanding affinity, trustworthiness, and preference for digital humans. *Information Systems Research*.
- Glikson, E., & Woolley, A. W. (2020). Human trust in artificial intelligence: Review of empirical research. *Academy of Management Annals*, 14(2), 627–660.

Starting Literature (Method)

- Charness, G., Gneezy, U., & Kuhn, M. A. (2012). Experimental methods: Between-subject and within-subject design. *Journal of Economic Behavior & Organization*, 81(1), 1–8.