

Consumer Behavior in Digital Contexts

Currently available topics for your Master's Thesis

1. **Nudge me if you can! The role of mHealth in promoting consumer wellbeing**
2. **Artificial emotional intelligence? Exploring consumers' relationships with virtual conversational agents**
3. **Deceivingly Real Conversations With Artificial Intelligence: The Dilemma Of Being Deceived And Deceiving Others**
4. **Verbal Abuse of Artificial Intelligence – Why Consumers Abuse AI-Based Assistants and Its Repercussions on Consumer Behavior**
5. **The Company Is Great, But They Use Artificial Intelligence! Consumer Perceptions Of Companies' AI Use In Customer Interactions**

Note: These topics can be prepared in German or English.

Nudge me if you can! The role of mHealth in promoting consumer wellbeing

mHealth describes the use of mobile and wearable devices, such as mobile phones and smart watches, for health services. By using and/or wearing these devices, consumers are much more aware of certain indicators of their health status, like their heart rate, and level of activity, like the number of steps they take throughout the day. However, despite being more aware than ever about their personal level of activity, are consumers also more motivated than ever? One tool that potentially sparks motivation might be gamification. Gamification is the use of game-design elements and game principles in non-game contexts. For example, the Apple Watch allows for week-long fitness competitions with friends with the goal to motivate consumers to stay active. The aim of this thesis is to review literature on mHealth content and gamification to understand their effects on consumer motivation and health-related behavior. A consumer experiment shall investigate how gamified information presentation may influence consumers' perception of mHealth and, consequently, health-related consumer behavior. Based on the findings, implications for the sustainable adoption of health-promoting behavior shall be derived.

Format: Literature Review & Experiment

Advisor: [Dr. Elisa Konya-Baumbach](#)

Literature:

Etkin, Jordan (2016), "The Hidden Cost of Personal Quantification," *Journal of Consumer Research*, 42, 967–84.

Jayanti, Rama K. and Alvin C. Burns (1998), "The Antecedents of Preventive Health Care Behavior: An Empirical Study," *Journal of the Academy of Marketing Science*, 26 (1), 6–15.

Mekler, Elisa D., Florian Brühlmann, Alexandre N. Tuch, and Klaus Opwis (2017), "Towards understanding the effects of individual gamification elements on intrinsic motivation and performance," *Computers in Human Behavior*, 71, 525–534.

Müller-Stewens, Jessica, Tobias Schlager, Gerald Häubl, and Andreas Herrmann (2017), "Gamified Information Presentation and Consumer Adoption of Product Innovations," *Journal of Marketing*, 81 (2), 8–24.

Artificial emotional intelligence? Exploring consumers' relationships with virtual conversational agents

Advances in machine learning and natural language processing drive the growing adoption of virtual conversational agents (VCAs). VCAs are natural language user interfaces to data and services through text or voice. VCAs allow users to ask questions or give orders in their everyday language and to obtain responses or services in a conversational style. Companies increasingly adopt VCAs for customer service interactions. Siri and Alexa are VCAs that support many consumers in their everyday life. Some consumers even developed social relationships with their VCAs while they were confined at home during pandemic restrictions. While the impact of the rapidly improving self-learning capabilities of VCAs on the society can be profound, affecting personal relationships and interpersonal interactions, research on this topic is scarce. It is unclear whether prior findings in the realm of computer-mediated communication apply in the new reality of human-VCA relationships. Despite their growing popularity and adoption, our knowledge about psychological processes underlying consumer-VCA relationships is virtually nonexistent. The aim of this thesis is to review literature on VCAs, human-computer interactions, and relationships to provide an overview of the current state-of-knowledge regarding the formation of relationships between humans and VCAs. A consumer experiment shall investigate how the design of VCAs may influence consumers' emotional attachment to and social bonds with VCAs and, consequently, downstream consumer behavior. Based on the findings, implications for marketing research and practice shall be derived regarding the design of VCAs.

Format: Literature Review & Experiment

Advisor: [Dr. Elisa Konya-Baumbach](#)

Literature:

- Croes, E. A., & Antheunis, M. L. (2021). Can we be friends with Mitsuku? A longitudinal study on the process of relationship formation between humans and a social chatbot. *Journal of Social and Personal Relationships*, 38(1), 279-300.
- Metz, C. (2020). "Riding Out Quarantine with a Chatbot Friend: 'I Feel Very Connected'". Available at <https://www.nytimes.com/2020/06/16/technology/chatbots-quarantine-coronavirus.html>.
- Mou, Y., & Xu, K. (2017). The media inequality: Comparing the initial human-human and human-AI social interactions. *Computers in Human Behavior*, 72, 432-440.
- Nass, C., & Moon, Y. (2000). Machines and mindlessness: Social responses to computers. *Journal of social issues*, 56(1), 81-103.
- Skjuve, M., Følstad, A., Fostervold, K.I. and Brandtzaeg, P.B. (2021). My Chatbot Companion – a Study of Human-Chatbot Relationships. *International Journal of Human-Computer Studies*, 149, 102601.

Deceivingly Real Conversations With AI: The Dilemma Of Being Deceived And Deceiving Others

Artificial Intelligence (AI), in the form of chatbots, voice-based assistants, or algorithms, is playing an increasingly important role in people's everyday lives, whether in private, organizational, or industrial environments. Today, the technology is so advanced that AI's imitation of the human voice appears deceptively real and can have entire conversations without the counterpart knowing to talk to AI (e.g., see Google Duplex). This offers new opportunities for companies as well as consumers. Companies could replace human hotline agents with AI-based agents, while consumers could 'outsource' simple tasks to AI assistants on their phones, such as making a doctor's appointment or requesting information from service providers. This Master's thesis examines consumers' ethical perception of such AI use in practice and investigates whether consumers differentiate between using deceptively real AI for their own purpose or being confronted with it when interacting with companies. Based on the findings, theoretical contributions shall be discussed and future research outlined. Further, practical implications for marketers applying AI shall be derived from the findings.

Format: Literature Review & Experiment

Advisor: [Alexander Mueller](#)

Literature:

Royakkers, L., Timmer, J., Kool, L., & van Est, R. (2018). Societal and ethical issues of digitization. *Ethics and Information Technology*, 20(2), 127-142.

Puntoni, S., Reczek, R. W., Giesler, M., & Botti, S. (2021). Consumers and artificial intelligence: An experiential perspective. *Journal of Marketing*, 85(1), 131-151.

Verbal Abuse of Artificial Intelligence – Why Consumers Abuse AI-Based Assistants and Its Repercussions on Consumer Behavior

AI-based assistants, such as Amazon's Alexa or Apple's Siri, have become ubiquitous technology in consumers' daily lives. Additionally, companies successively adopt AI-based assistants for customer interactions. Analyses of user interactions with such assistants show that up to 30% of interactions contain social norm transgressions towards AI such as abusive language, profanities, and even sexual harassment. This Master's thesis aims to investigate why and when consumers abuse AI-based assistants. Additionally, this thesis shall shed light on the consequences of such behavior and on how consumers feel after the abuse. Qualitative in-depth interviews shall be conducted with users of AI-based assistants to reveal their motives for abusive behavior. Based on the qualitative findings, implications for marketing research and practice shall be derived regarding a company's coping strategies after AI abuse by users.

Format: Literature review and qualitative interviews

Advisor: [Alexander Mueller](#)

Literature:

Dietvorst, B. J., & Bartels, D. M. (2022). Consumers object to algorithms making morally relevant tradeoffs because of algorithms' consequentialist decision strategies. *Journal of Consumer Psychology*, 32(3), 406-424.

Zhou, Y., Fei, Z., He, Y., & Yang, Z. (2022). How Human-Chatbot Interaction Impairs Charitable Giving: The Role of Moral Judgment. *Journal of Business Ethics*, 1-17.

Bartneck, C., & Keijsers, M. (2020). The morality of abusing a robot. *Paladyn, Journal of Behavioral Robotics*, 11(1), 271-283.

The Company Is Great, But They Use Artificial Intelligence! Consumer Perceptions Of Companies' AI Use In Customer Interactions

Scientists and software developers have proven that artificial intelligence (AI) can outperform humans in many tasks ranging from driving a car, predicting someone's personality, or identifying the best treatment for patients. Yet, scholars debate whether people are algorithm averse or appreciate the technology with all its benefits. This Master's thesis shall contribute to the literature in investigating, whether consumers perceive a company's use of AI in customer interactions differently, depending on whether consumers take an outside perspective of customer interactions (not being a customer interacting with AI) or an inside view (being a customer affected). An empirical study shall shed light on potential differences in consumers' AI perception to contribute to the current academic debate. Apart from theoretically contributing, this Master's thesis shall provide practical implications for marketers wanting to implement AI in customer-interaction processes and outline future research.

Format: Literature Review & Experiment

Advisor: [Alexander Mueller](#)

Literature:

Yalcin, G., Lim, S., Puntoni, S., & van Osselaer, S. M. (2021). Thumbs Up or Down: Consumer Reactions to Decisions by Algorithms versus Humans. *Journal of Marketing Research*, 00222437211070016.

Puntoni, S., Reczek, R. W., Giesler, M., & Botti, S. (2021). Consumers and artificial intelligence: An experiential perspective. *Journal of Marketing*, 85(1), 131-151.