

Now we're talking

Citation for published version (APA):

Maurer, T. L. (2023). Now we're talking: The impact of artificial intelligence drivers on consumer evaluations and behavior with voice assistants. [Doctoral Thesis, Maastricht University]. Maastricht University. https://doi.org/10.26481/dis.20230510tm

Document status and date:

Published: 01/01/2023

DOI:

10.26481/dis.20230510tm

Document Version:

Publisher's PDF, also known as Version of record

Please check the document version of this publication:

- A submitted manuscript is the version of the article upon submission and before peer-review. There can be important differences between the submitted version and the official published version of record. People interested in the research are advised to contact the author for the final version of the publication, or visit the DOI to the publisher's website.
- The final author version and the galley proof are versions of the publication after peer review.
- The final published version features the final layout of the paper including the volume, issue and page numbers.

Link to publication

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
 You may freely distribute the URL identifying the publication in the public portal.

If the publication is distributed under the terms of Article 25fa of the Dutch Copyright Act, indicated by the "Taverne" license above, please follow below link for the End User Agreement:

www.umlib.nl/taverne-license

Take down policy

If you believe that this document breaches copyright please contact us at:

repository@maastrichtuniversity.nl

providing details and we will investigate your claim.

Download date: 02 May. 2024

SUMMARY

Artificial intelligence (AI) enabled voice assistants (VA) increasingly emerge as a promising marketing channel, through which consumers can interact with firms, facilitated through the VA. VAs come with a unique way of interacting: Consumers simply voice their command, and ideally, the VA fulfills the required task – such as playing music, telling a joke or order the consumer's favorite pizza from Dominos. However, VA usage appears to remain below expectations, not in terms of usage growth, but in terms of the activities and tasks that consumers use with VAs. The growing body of marketing literature on AI enabled VAs lacks comprehensive insights on what can explain this phenomenon and needs guidance for firms. To facilitate a needed understanding of what drives marketing relevant outcomes with VAs, this dissertation set out to investigate the AI and VA specific factors as well as boundary conditions and drivers on relevant outcomes throughout the consumer's voice-assisted journey with VAs (i.e., pre-purchase, purchase, post-purchase). The findings and implications of my dissertation set a starting point to foster important discussions among academics, practitioners, policymakers, and consumers regarding AI in the consumer realm.

Despite the growth in VA usage, there is no comprehensive model of how consumers evaluate VAs. Chapter 2 draws on work on artificial intelligence (AI), new technology adoption and voice technology, to develop an overarching framework for how consumers evaluate VAs grounded in signaling theory. Because VAs are a form of AI, the chapter proposes that factors that reduce perceptions of VAs' 'artificiality' or that increase perceptions of 'intelligence' will improve VA evaluations. Specifically, the comprehensive framework that draws from signaling theory and extends it to the AI enabled technology context, advances the conceptual understanding of VAs and how consumers evaluate VAs, by linking it to specific AI and VA factors. Next, this chapter draws on work on technology adoption, and proposes that a cost-benefit calculus explains (or, mediates) the impact of the above factors on VA evaluations. Further, this chapter highlights a set of moderators that are relevant to both theory and practice. An initial examination empirically tests some of the propositions using a dataset of VA reviews. Finally, this chapter offers a rich agenda for future research.

Chapter 3 conceptualizes a model of consumers' voice purchase intentions through building from prior work on AI enabled VA drawing from signaling theory. The chapter postulates that when VAs seem less like a machine (less artificial), and more intelligent, this positively influences consumers' intentions to conduct voice purchases through VAs. At the same time, AI applications like

VAs have been investigated mostly from a cross-sectional stance, in that they take snapshots of consumers' usage and VA perceptions but perceptions of Al technologies such as VAs are likely not static. Through a longitudinal usage study design with four repeated measurements, I find empirical evidence that less machinelike VAs (diminished artificiality) and seemingly more intelligent VAs (enhanced intelligence) positively influence consumers' intentions to conduct purchases through VAs. In addition, more consistent VAs (less fluctuations in perceptions of artificiality) and steadily increasing VA intelligence perceptions over time, strengthen the link of artificiality and intelligence with voice purchase intentions, respectively. This study finds initial empirical evidence that AI applications like VAs are not static, and that consumers' perceptions and AI can change with time, paving the way for future research on signal patterns with AI technologies. This chapter depicts an extension to signaling theory, in that AI signals likely vary in their strength over time and consumers' receptivity to signals can change due to their motivation or ability to interpret the signals.

Service encounters with AI and VA technology in retail settings are likely going to be more commonplace in the future. Chapter 4 investigates consumer's advocacy after VA-assisted service encounters. Popular press articles and current research alike highlight the role of VA's trustworthiness during first points of contact with the technology. This chapter investigates two potential factors that may elevate or weakening technology trustworthiness, namely delight and inferences of manipulative intent. Comparing two interaction modes, textbased chatbot- and VA-interactions, in a scenario-based experiment, this chapter finds initial evidence that delight plays a role in enhancing VAs trustworthiness, which, in turn, fosters consumers' advocacy for VA-assisted service encounters. Furthermore, this chapter extends the signaling lens as consumers' Al signal receptivity may depend on situational characteristics such as the state consumers are in (i.e., delight). This extension of the signaling lens fosters research on strong emotional responses of consumers in the Al technology context, which will become increasingly important the more the domain of affective computing advances.

Through employing and extending a signaling lens, this dissertation advances the understanding of how consumers evaluate and intend to behave with Al technology like VAs. This understanding likely increases in importance, the quicker Al advances in the future. Next to discussing the findings of the chapters, the General Discussion highlights relevant data privacy as well as ethical challenges and implications for Al technology in the consumers' daily life. Finally, the impact paragraph elaborates on the impact of my dissertation and discusses it in light of recent Al developments (i.e., introduction of OpenAl's ChatGPT).