Consumer Experiences with AI-Powered Shopping Assistants

Detailed Study Information

Principal Investigator: Ann-Kathrin Pesch

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Study Duration: 20-25 minutes

Ethics Approval: ETH Zurich Ethics Committee (Application 25 ETHICS-190)

Study Purpose and Background

This research investigates how consumers respond to AI-powered voice assistants in online shopping contexts. The study aims to understand how people perceive and interact with voice-based AI systems when receiving product recommendations, and how these interactions influence customer attitudes and behaviors.

This research contributes to the growing field of human-AI interaction and helps optimize AI technology to improve digital customer experiences across different retail contexts.

Study Procedures

What You Will Do

1. Website Visit (5 minutes)

- o Click on a provided link to visit a watch brand's website
- o Browse and explore their product catalog
- o Familiarize yourself with the brand and available products

2. AI Voice Interaction (5-10 minutes)

- o Access an AI shopping assistant through a link on the website
- o Have a natural voice conversation with the AI about your watch preferences
- o Discuss style, material, size, and other features you value
- Receive a personalized product recommendation based on your conversation

3. Survey Completion (10-15 minutes)

- o Automatically return to the Qualtrics survey platform
- Answer questions about your experience with the website and AI assistant
- o Rate various aspects of the interaction and brand perception
- Provide demographic information and shopping preferences
- Complete questions about your technology use patterns

4. Debriefing

- Receive information about the study's purpose and preliminary findings
- Learn about the research methodology and expected outcomes

Total Time Commitment: Approximately 20-25 minutes

Participant Eligibility

Who Can Participate

- Adults 18 years and older
- Ability to communicate fluently in English
- Access to a computer, smartphone, or tablet with internet connection
- Audio capabilities for voice interaction with the AI system
- Basic digital navigation skills

Exclusions

- Individuals with hearing impairments that prevent audio interaction
- Those unable to operate digital devices independently
- Participants under 18 years of age

Data Collection

Types of Data Collected

Voice Recordings:

- Audio recordings of your conversation with the AI assistant
- Conversation duration and number of exchanges
- Response patterns and interaction quality metrics

Website Behavior:

- Pages visited and time spent on each page
- Product views and browsing patterns
- Click-through behavior and navigation paths

Survey Responses:

- Ratings and evaluations of the AI interaction
- Brand perception and product interest measures
- Shopping attitudes and preferences
- Technology adoption and usage patterns

Demographic Information:

- Age, gender, occupation, nationality
- Education level and income range (optional)
- Previous experience with AI assistants
- Online shopping frequency and preferences

Optional Contact Information:

• Email address (only if you choose to provide it for follow-up research or voucher drawing)

Data Handling and Privacy

Data Security

- All voice recordings stored separately from survey responses
- Encrypted data transmission and storage
- Access limited to authorized research team members only
- Secure servers maintained by ETH Zurich IT infrastructure

Data Processing Timeline

- **Voice recordings:** Transcribed within 2 weeks, original audio deleted within 6 months
- Survey data: Processed and analyzed within 12 months
- Anonymization: All identifiable information removed within 12 months of collection
- Publication: Only anonymized, aggregated results published

Research Team Access

Only the following authorized researchers have access to identifiable data:

- Ann-Kathrin Pesch (Principal Investigator)
- Prof. Dr. Florian von Wangenheim (Supervisor)
- Dr. Ertugrul Uysal (Co-Supervisor)
- Min-Yi Chen (Research Assistant)

Data Sharing and Future Use

- **No commercial sharing:** Data will not be shared with industry partners or third parties
- Academic use only: Anonymized data may be used for academic publications and conferences
- ETH Research Collection: Anonymized dataset may be deposited for scientific replication
- No future projects: Data will not be used for unrelated research projects

Rights and Risks

Your Rights

- Voluntary participation: You can withdraw at any time without consequences
- Data access: You can request access to your data before anonymization
- Data correction: You can request corrections to inaccurate data
- Data deletion: You can request deletion of your data before anonymization
- Complaint rights: You can file complaints with the ETH Ethics Committee

Potential Risks

- Minimal risk study: No physical or psychological risks anticipated
- Privacy concerns: Addressed through strict data protection measures
- **Technical issues:** Backup systems in place for data security
- **Time commitment:** Clearly communicated upfront (20-25 minutes)

Benefits

- Scientific contribution: Advance understanding of human-AI interaction
- Technology improvement: Help optimize AI systems for better user experiences
- Academic knowledge: Contribute to research in consumer behavior and technology

Legal Compliance

This study complies with:

- Swiss Federal Act on Data Protection (FADP)
- European General Data Protection Regulation (GDPR)
- ETH Zurich Research Ethics Guidelines
- International ethical standards for human subjects research

Compensation

Participation in this study is unpaid. However, as a token of appreciation:

- Participants who provide email addresses may be entered into a drawing for shopping vouchers
- Providing email address is completely voluntary and not required for participation
- Winners will be notified within 4 weeks of study completi

Contact Information

Study Researcher

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Ethics Committee

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Complaints and Concerns

If you have any complaints about this study or concerns about your rights as a participant, please contact the ETH Zurich Ethics Committee at the contact information above.

Study Funding and Approval

Funding: This study is conducted as part of a Master's thesis at ETH Zurich's Technology Marketing Chair. No external commercial funding is involved.

Ethics Review: This study has been reviewed and approved by the ETH Zurich Ethics Committee under application number 25 ETHICS-190.

Acknowledgment

Thank you for considering participation in this research. Your contribution helps advance our understanding of human-AI interaction and contributes to the development of better digital customer experiences.

If you have any questions about this study, please don't hesitate to contact Ann-Kathrin Pesch at apesch@ethz.ch before providing your consent.

This document contains the complete information about the research study. Please retain this document for your records.

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