

# Potentials of AR technology for the digitalization of consultancy intensive sales processes on the example of furniture sales

Results from an ethnographic study

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# This Talk – an Overview

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Project goal: Digitalize configuration and consulting intensive sales processes to enable digital sales.

- Context of the project
- Aim of the study
- Data gathering approach
- Results
- Requirements derived from the study
- Current state of the prototype



# Context

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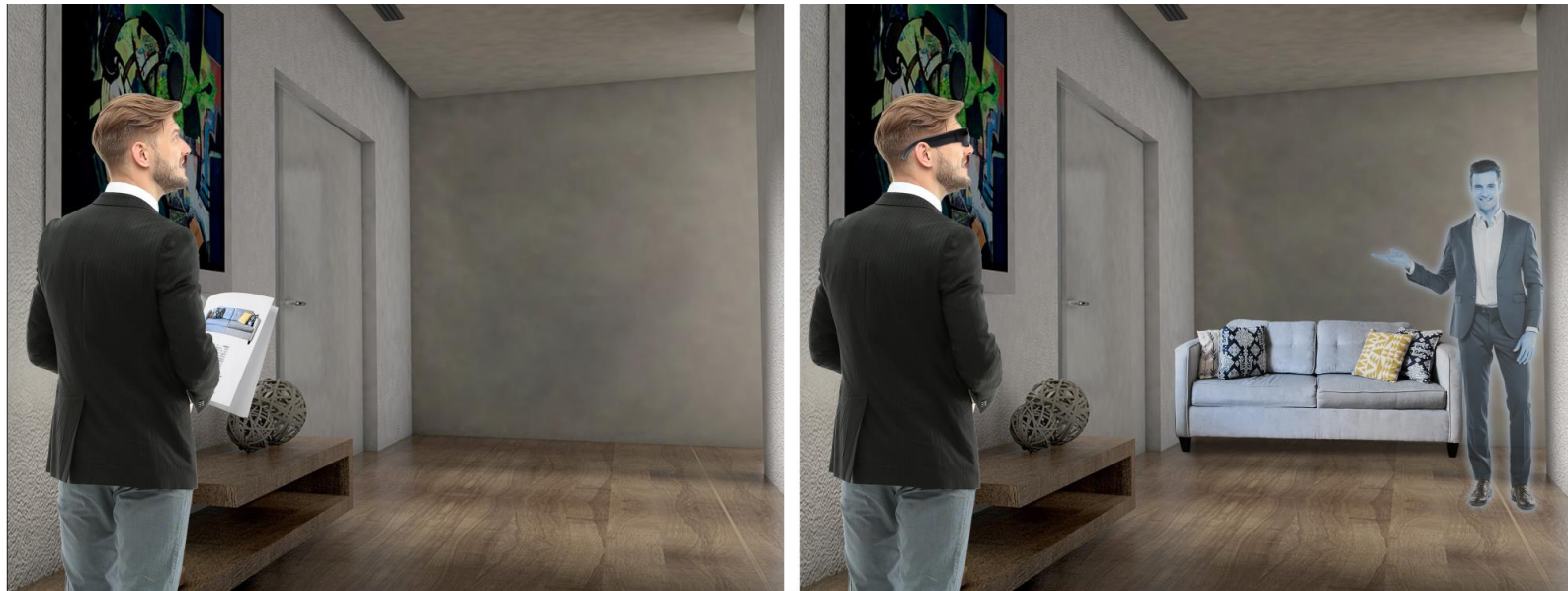
- Most things can be bought online
- However: It is difficult to buy configuration- and consultation-intensive products online (e.g. cars, furniture, houses, sunrooms, etc.)
- Too many options overwhelm customers and consultation required
- Many items can only be seen physically after they are bought and delivered
- Many items are manufactured to order
- Additionally: (Furniture) retailers need tons of space and are located outside of cities rather than in pedestrian zones





# Aim of the Study

- Learn more about furniture sales
- Derive requirements for design and development process
- Idea: create an augmented reality service
- Advantages of augmented reality:
  - Customers can view live-sized items in their natural surroundings
  - Consultants can view local environment of the customer





# Data Gathering

- Three researchers posing as trainees
- Observation of three furniture consultants for a day each
- Guiding sheet to focus note taking during observations
- Semi-structured interviews at the end of the day
- Analysis via Affinity diagrams



## Markierungshilfen für schnelleres notieren

ⓘ Interessant / Ungewöhnlich	ⓘ Eigene Interpretation
Ⓩ Wörtliches Zitat / Paraphrase	Ⓢ Rückfrage
ⓑ Beobachtung	Beobachtungsschlüssel (bspw. 2b für Redeanteil)

1. Ablauf des Beratungsgesprächs
  - a. Wie wird wann ein Beratungsgespräch initiiert?
  - b. Welche Phasen beinhaltet eine Beratung?
  - c. Welche Elemente treten in welcher Reihenfolge während der Beratung auf?
  - d. Wie beenden Kunde und Berater die Beratung? Welche Absprachen treffen sie?
2. Wechselseitige kommunikative Schlagabtausch
  - a. Wer geht wie während der Beratung vor? Wer lenkt wie den Gesprächsverlauf?
  - b. Wie viel Redeanteil haben Berater und Kunde im Verlauf der Beratung?
  - c. Wie äußert der Kunde seine Wünsche und Vorstellungen? (konkret, abstrakt, ...)
  - d. Wie schildert der Kunde seine häusliche Umgebung?
  - e. Wie gehen Kunde und Berater aufeinander ein?
  - f. Warum treten Momente der Stille auf? Wie wird damit umgegangen?
3. Ort der Beratung
  - a. Wo findet die Beratung statt? (Am Schreibtisch, am Möbelstück, unterwegs, etc.)
  - b. Welche Umgebungselemente werden wie in die Beratung integriert?
  - c. Was macht den Ort besonders? Was stört an ihm?



# Results I: Knowledge Asymmetry

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- **Asymmetry:**
  - Consultant knows furniture details best
  - Customers are experts on their home environment [Jungermann et al. 2015]
- At first both only have generalized information
- Both try constantly to reduce the knowledge gap
- Customers have difficulty to communicate
- Discrepancy: Consultants think customers are not prepared, however, customers think they are prepared.



## Results II: Preparation vs. Experience

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- Consultants did not prepare for customers visits
  - Appointments are unusual
  - Observation of customers is only preparation
- Customers are overwhelmed with pieces on display
  - They require multiple visits
  - Customers unaware of customization options
  - Customers do not often bring pictures / measurements
- Unclear whether time for preparation is worth it



## Results III: Building Relationships

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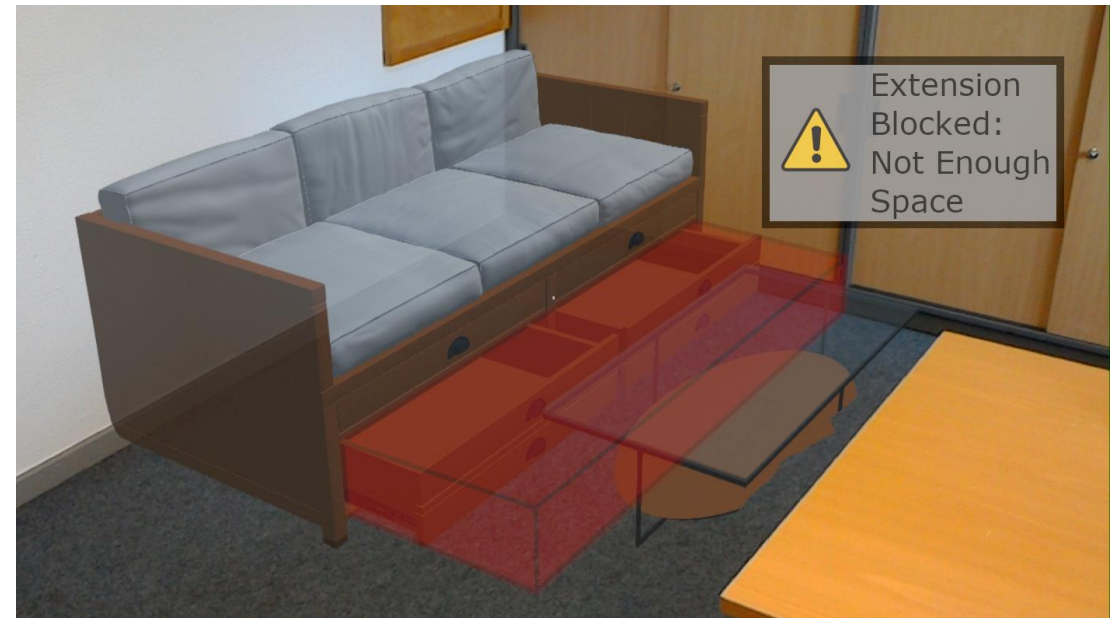
- Consultants prefer to keep customers (rather than switching to another consultant)
- Customers seek approval of trustworthy people
  - E.g. Consultants or friends
  - Friends are involved via social media
- Customers need and prefer hands-on experiences





# Deriving Requirements of a Solution

- Integrated camera in AR headsets allows consultants to view customers local environment
- AR environment allows customers to visually see a specific configuration in their local environment
- Allow exploration for customers to reduce knowledge gap
- Allowing customers to share their configurations to receive feedback (e.g. via social media)
- Collision detection for virtual objects (e.g. extendible drawers)
- Pointing & Drawing
- Automatic Measurements





# Open Questions

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- **Consultants rely on seeing the customers**
  - Body: Choosing couches for customers' weight
  - Face: See them reacting e.g. to price tags
- **Customers want to try out furniture**
  - Test the cushioning [e.g. Degraen, Zenner, Krüger 2019, or Piekarski and Thomas 2003]
  - Feel the fabrics
- **Scalability**



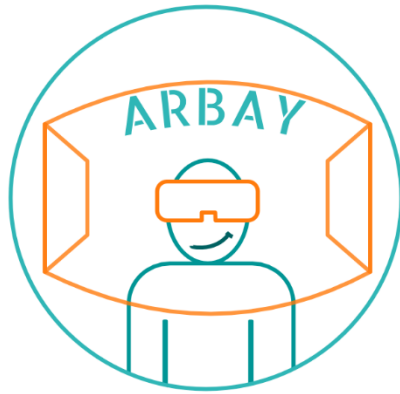
# Current State of the Prototype





# Thanks for listening

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