

# The Art of Gift-Giving with Limited Preference Data: How Fashion Recommender Systems Can Help

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## Introduction and Problem Statement

- Fashion recommender systems (FRS) work with a lot of data, but **limited** data is available in offline, in-store scenarios
- RQ:** How effective are human- and computer-based recommenders in helping people purchase pieces of clothing as gifts for their close friends, family members, or partners, in the in-store and limited-data scenarios?

## Methodology

- Experiment on **192 pairs** of participants
- Comparing the effectiveness of Vision Transformer (**ViT**) model against **human** recommenders in selecting fashion gifts, simulating **in-store** cold-start scenarios
- All recommenders only observed **limited input** data (top 3 most and least preferred clothes)



Figure 1: Overview of our experiment design, including its different phases

## Results

- Both ViT and human recommenders achieved **over 50%** correctness in gift recommendations, also higher than the gift buyer alone
- Gender** played a role: recommenders who identified as females had higher accuracy for receivers identified as females, and similarly for males

## Conclusion

- The mere act of consulting with an **external** agent, no matter if he knows the recipient, can improve the correctness score of buyers, compared to purchasing on their own
- We provides HCI insights into how recommender systems can be used in **cold-start** situations

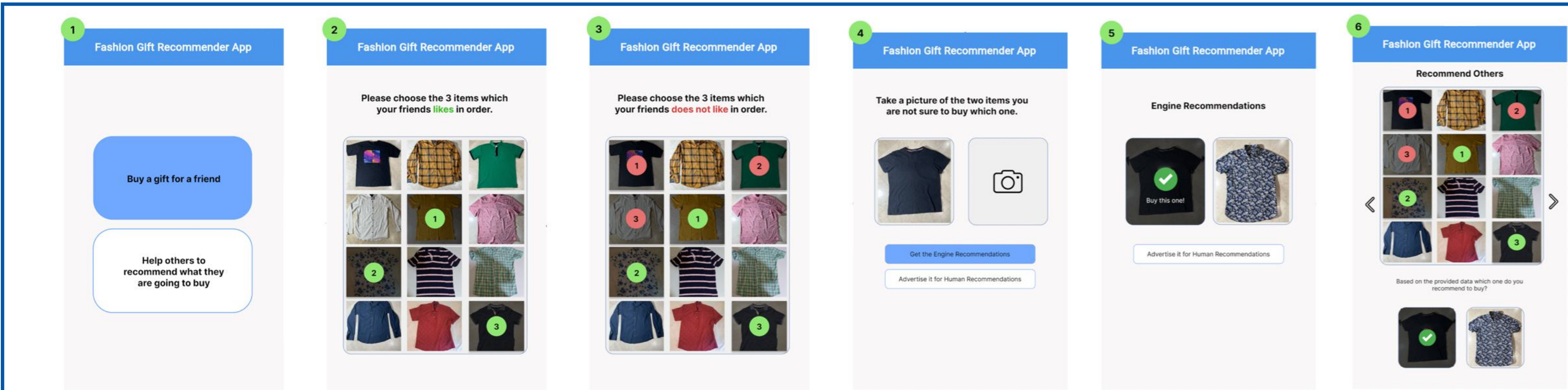


Figure 2: Our prototype smartphone app, implementing our method in practice