USER-CUSTOMIZED ONLINE WARDROBE DESIGN SYSTEM

Explorative learning from digital transformation at IKEA

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Background

Traditional companies are facing the challenge of digital transformation since the global pandemic has struck and people's behaviour has changed in significant ways. Even before the pandemic, consumers were moving away from in-person shopping with over 80% of IKEA's customer journeys starting online. With the flexible replication mode in IKEA's internalization experience, IKEA has set the first ever digital hub in China due to the digital boom happening there, with the digital strategy to establish itself as more than just a suburban retail outlet—to be a virtual one-stop shop for consumers' design needs.

Introduction

In the above context, IKEA's work in AI, along with IKEA's 75 years of home designing knowledge, could potentially be used to suggest items to customers in line with their preferences. PAX online is such a project to transform the offline procedure of PAX AI wardrobe design planner to the online mobile app. It features the study of practice of digital transformation for conditional industry, variations of IKEA ethic in China, users' expectation for intelligent design in the field of furniture and sociological study of furniture.

Design Diagram

The final design of PAX online user flow after numerous iterations following the results of the user studies features the mode of inputting user preferences with simple selections step by step:
1. Select basic information; 2. Select storage needs; 3. Adjust interior plans; 4. Adjust exterior plans; 5. Add accessories.

Cover until the release of PAX online

Research Methodology

The design process includes several different research methods and user study methods. User surveys are conducted to get general user data; in-app questionnaires are to filter and find participants; user interviews are to find user requirements and pain-points, thus to form a user journey maps; usability testings are to test, examine and compare different prototypes and validate pre-assumptions.

In implementation, 10 user interviews via phone are conducted with a user journey map produced; 3 sets of prototypes are designed based on previous findings from the user journey; 9 participants are selected through in-app questionnaires and phone calls, and are invited to 9 sessions of usability testings to compare and validate assumptions in each plan.

Research Results

Through telephone interviews, an entire user journey of customer purchasing a wardrobe is produced with requirements and pain-points found through participants' descriptions. The requirements are then analysed through a workshop with other designers to find the essential needs by customers, and several assumptions are proposed for the theoretical basis of prototypes. 3 sets of prototypes each have its different focus of functional feature and the final chosen prototype have the combined advantages of 3 sets of testing prototypes, with many changes in detail according to user's feedback.

Conclusions & Future Work

The main conclusion is generally the final design of the high-fidelity prototype for PAX online. The design flow has been changed from an editor like existing PAX planner to a recommendation engine with a clear linear process based on user's preference and inputs in each step. The final design decision for PAX online shows that when introducing a complicated editing tool to the broader user range, usability and user's intuitive requirements should be put in the first place. When transforming a digital product to a different platform, the usage scenario and operability should be carefully considered and designed for portable mobile devices. Common principles are also extracted to apply to other practices with AI design tools at IKEA. Future work can be focused on setting the general rule of designing such tools across different product lines to provide a more consistent and coherent experience for users from different channels.