

UX Flow: How to improve the user experience of the payment system in the "Transport for London (TfL) Pay to Drive" application.

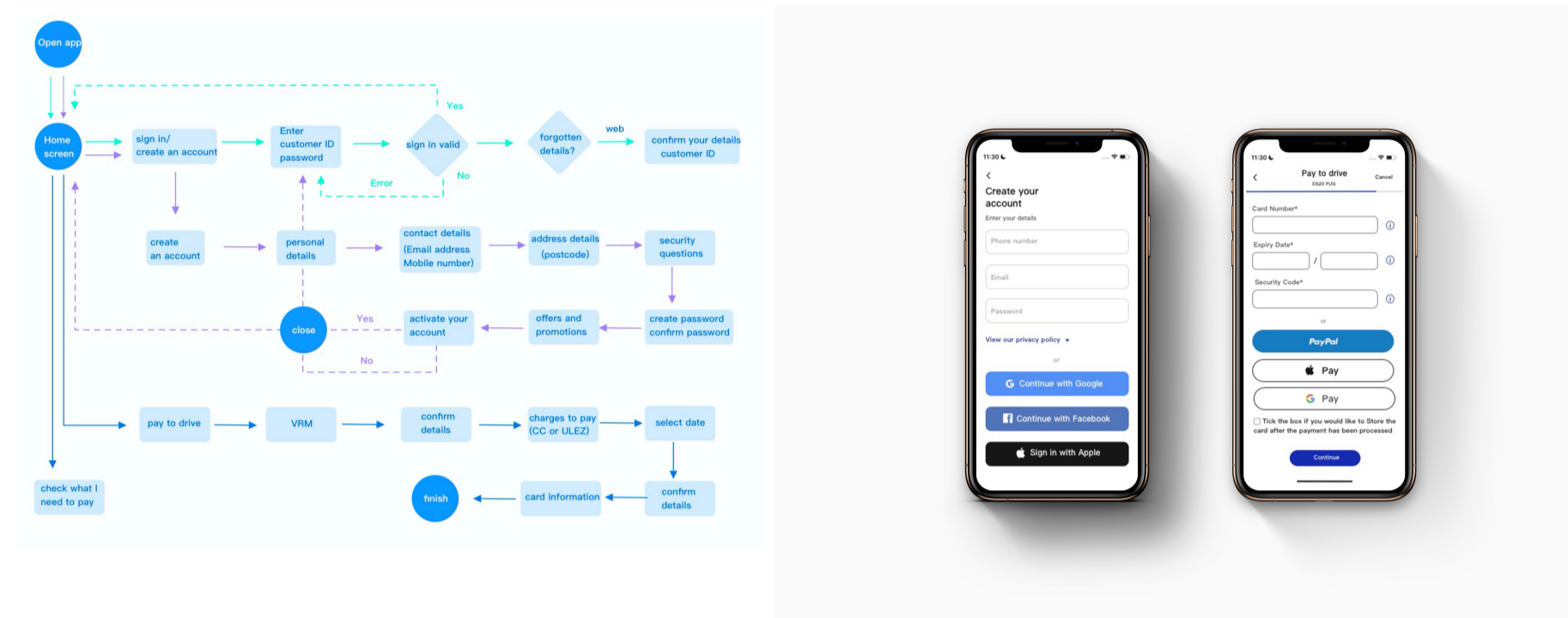
Qiu Zuo



Abstract

In the context of a study of the London pay to drive principles, a series of research methods were used to examine user behavior and behavioral habits, find out the user pain points, **improve customer satisfaction and driving retention rates** of the "TfL Pay to Drive" application.

Design



"Pay to drive" UX Flow

Prototype

Study Methodology

The design process carried out in this research is using the **Design Thinking methodology** and Structured thinking to analyse the problem. using the GOK.UK, TfL website to do research on the principle of paying for driving, in-depth interviews with users, competitor analysis, check user reviews, Analyzing product allows to find areas where customers may struggle and consider the product how helps address the needs of customers. Try to create the simplest path to reduce customer churn.

Introduction & Background

The "TfL Pay to Drive" application is the official Transport for London application that allows users to pay congestion charges, ULEZ and LEZ charges, as well as **pay for penalty notices fines, check if their geographical area is in a charging zone**, and other functions that are designed to make it user friendly for users to pay the charges. But unsatisfactory, the "TfL Pay to Drive" application has a user rating of only **1.8** in the APP Store, and in addition to technical issues, there are also some poor and cumbersome operation issues. In the reviews, we can find some problems, that are still not solved, obviously, TfL doesn't care about this app. This project aimed to improve the functionality of "**login, payment, payment deadline and charging area**" and introduce new features to make access faster and easier for users, address their needs, and review their goals, based on a study of the principles for paying for driving and paying PCN fines in London and analysis of user pain points, needs, and behavioral motivations.

Testing & Evaluation

Design prototypes that the user can interact with, install eye tracker software on the device and users are asked to run the prototype according to the task. Observe how the user interacts with the application, evaluation **how long it takes the user to complete each task, what tasks cannot be completed**, and try to get further feedback. Analyze heatmaps and reflect on user needs and experiences. Trying to understand context, environmental factors. Find out what users expect from a newly designed prototype and whether it addresses user pain points.

Research Results

Evaluate the **effectiveness, efficiency, or satisfaction** of the prototype design and obtain more positive results and feedback through usability testing. All users can perform each task, the average of each task gets better results and is completed faster in terms of time, especially the **login and payment are faster, the charging area and payment deadlines are clearer and more explicit**, reducing the learning costs for the user.

Conclusions & Future Work

Although we have conducted in-depth interviews, analysis of user reviews, user testing of current application, and usability testing of redesigned prototypes, and have received some positive feedback, there are still flaws in the research process. For example, there is **a lack of real users who need to pay ULEZ, LEZ and PCN charges**. It's a challenge, but in user reviews, we can get some useful feedback to promote the development of this project, future work will be able to make up for this, looking for a wider range of participants can better improve the user experience of the application.