

Design and Development of a Sharing Economy application

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Abstract

The research conducted in this study focused on the design and development of an item and skill sharing application. This research investigates the problem of increasing consumer expenditure in Ireland despite the increase in usage of sharing economy applications. It is proposed that a novel item and skill sharing application be introduced to reduce consumer expenditure and increase sustainability in Ireland.

An extensive review of related literature and existing sharing economy applications found that the requirements of trust, privacy and pricing would have to be satisfied for the proposed application to be successful. Various methods were considered to satisfy these requirements. These methods were chosen based on a further review of related literature and existing sharing economy applications. They include; implementing the application as community-based and implementing a rating system to satisfy trust, implementing a user defined friendship model with custom granularity to satisfy privacy, and allowing users to decide upon their own fees and encouraging an atmosphere of bartering on the platform to satisfy pricing. Android Studio and Firebase were chosen to facilitate the implementation of the proposed application.

A major insight of this research is the importance of implementing a sharing economy application as community-based if it is to be successful. It is found that users are more likely to engage with a sharing economy application if they view the other users of the platform as their neighbours.

A major contribution of this research is the user defined friendship model. This model allows users to customize the information seen by users of the platform who are their friends and users who are not. A major challenge faced during the development of the proposed application was ensuring maintenance of user privacy while still showing enough user information to encourage trust. The fact that the implemented user defined friendship model solves this problem is a significant accomplishment of this research.