DIEP Reflection

URL: https://2025.macd.work/yc7n24/

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Abstract

The DIEP strategy is a systematic reflective approach that helps to analyse learning and practice experiences in depth and provide guidance for future development through the four steps of Describe, Interpret, Evaluate and Plan. Based on the DIEP strategy, this paper provides an in-depth analysis of three projects, discussing their design ideas, implementation process, outcomes and shortcomings, and focusing on future for improvement and application.

Project Description

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In Project 1 of *People Watching*, I chose to conduct it in a busy public area around the Highfield Campus Library at the University of Southampton. I recorded patterns of group behaviour that caught my attention. During the 3-hour-observation, I took nine photographs capturing the behaviours of people using public spaces in non-traditional ways, such as using the edges of flower beds as seating, studying alone in a group chat area, and grooming themselves while waiting for a coffee. These behaviours reflect how individuals use public spaces flexibly according to their actual needs.

Being Human is my second project of the semester, in which I have designed an app named *Time Deal Deal* to address the issue of smartphone overuse amongst 21–35-year-olds, with the core function of facilitating 'deals' between users and their time and promoting balanced digital usage behaviours. The project was inspired by my daily observations of mobile phone dependency and its negative impact on productivity, social interactions and mental health. For instance, one time I was trying to look up a word but was distracted by a WeChat message and was unable to complete my intended task. The app design leverages the principle of loss aversion in behavioural psychology to develop users to form healthier digital habits.

Project 3, called 360 app, I designed an application called *Ukey* which is a smart access management application for international students in the UK, using NFC technology to bind dormitory access to the user's mobile phone, allowing them to open the door even if they have forgotten their physical card. *Ukey* includes services such as virtual card personalisation, emergency contact support and a flat notification centre, designed to reduce the inconvenience of losing a physical card and enhance the user's life.

Interpret

Significance and Implications of Item 1

In Project 1, I reveal the relationship between individual behaviour and environmental design in public space and allude to the concept of rules breakers in the current era of mechanised routines. On the one hand, by documenting patterns of behaviour, I found that the design of existing facilities did not fully meet the diverse needs of users. For example, the way flower beds are used as seating suggests that designers need to give more consideration to the actual behavioural and comfort needs of users. This ability to observe has developed my skills in analysing problems from a human-centred, functional design perspective, while at the same time enhancing my keen insight into social behaviour. On the other hand, some unconventional behaviours in the age of conventionality can also be used as another set of norms, and I have delved deeper into the conceptual analysis, combining the social environment with the associative approach to integrate my thoughts on design.

Picture 1

Theoretical support and application scenarios for Project 2

Time Deal Deal specifically embodies the application of behavioural psychology to digital health. Through the design concept of loss aversion, the tendency to avoid loss, is a concept that can be a powerful motivator for behaviour change (Kahneman and Tversky, 1979). Users are more likely to adjust their behaviour when faced with the loss of potential rewards. This combination of theory and technology not only provided practical tools for users, but also inspired me to incorporate psychological principles more effectively into future designs. The project also made me realise that design is not just about implementing functionality, but also about a deep understanding of users' habits and emotions.
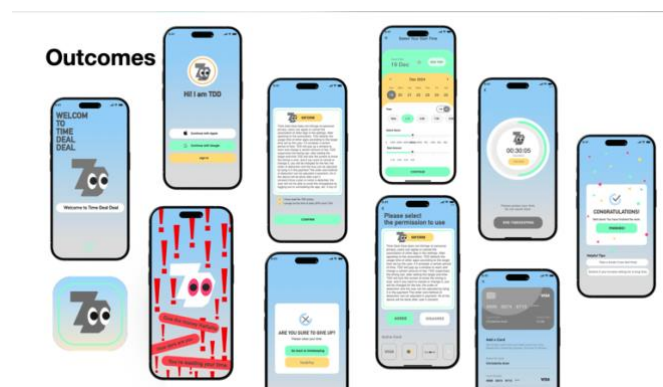
Picture 2

Technology Integration and User Experience for Project 3

The *Ukey* application provides new ideas for the construction of smart communities through the deep integration of technology and user needs. the use of NFC technology enhances the convenience of the access control system, while increasing the user's sense of security and trust. In addition, the virtual card personalisation feature highlights the importance of user experience. This project has helped me understand how to transform complex technologies into user-friendly products, and at the same time made me pay more attention to the optimisation of details in design.

Picture 3

Evaluate

Value and Limitations of Project 1

The project reveals the diversity of individual behaviours in public space through observation, which provides a useful reference for the design of public facilities. However, the limitations of observation time and sample size may lead to insufficient generalisability of the findings. In addition, the research method that relies only on qualitative analysis may have overlooked the deeper motivations and trends behind the behaviours. A combination of quantitative studies is needed to enhance the reliability of the study in the future.

Practical effects and improvement in Project 2

Innovativeness of *Time Deal Deal* is demonstrated by its deep insight into the problem of mobile phone overuse and the psychological underpinning of its solution. However, the project suffers from the challenge of keeping users engaged in the long term. Despite the novelty of the design concept, users may be lost due to the lack of immediate rewards. In addition, research methods that rely only on qualitative analysis may ignore the deeper motivations and trends behind the behaviour, which can make the intent of the application overly transactional in terms of money, and there is still room for refinement of the mechanism for the equivalent exchange of money and time.

I need to keep incorporating quantitative research to enhance the reliability of the data used. For example, a monetary reward mechanism can be put in place to motivate people to accomplish their goals.

Practicality and potential for expansion of Project 3

Based on the process, the practicality and innovation of *UKey* is well demonstrated in the project 3, especially in addressing the needs of a specific group of international students. The replacement of the physical card with NFC in application can facilitate the daily access of international students. However, the technology dependency of the project may limit its applicability, e.g. in areas where NFC technology is not widely available. In addition, the current functionality still favours access control management and lacks coverage of more scenarios in users' daily lives. Broader functional integration is needed in the future to enhance its market competitiveness. Furthermore, although the diversity and usefulness of this app has supported the needs of international students, it lacks the coverage of more scenarios, such as online booking of flat study rooms to avoid overcrowding, etc., which will require wider integration of functions in the future to enhance the improvement of its system and put it into the market to compete.

Plan

Based on the findings of Project 1, I plan to conduct a more systematic study to verify the generalisability of the observations. This includes expanding the observation area and time and collecting user feedback through a combination of interviews and questionnaires. Meanwhile, I also plan to collaborate with my fellow architectural design students to apply the research findings to practical design projects, adding some conceptual elements while being able to provide a practical solution to create a unique and effective space that is both functional and reflective, allowing users to explore the

urban space to achieve a deeper understanding of their surroundings and social issues, in order to achieve introspection and self-reflection.

Optimisation and Promotion of Project 2 In the future, I plan to introduce gamification mechanisms into *Time Deal Deal*, for example, through a point system or virtual rewards to enhance user participation. At the same time, I will use data analytics to provide users with personalised usage suggestions and feedback. To expand the impact of the application, I plan to cooperate with some schools or enterprises to extend *Time Deal Deal* to more scenarios, such as educational institutions and workplaces, to help more people achieve digital health.

Function Expansion and Market Application of Project 3 *UKey*'s next step is to explore more intelligent functions, such as AI-based behaviour prediction and security monitoring systems. In addition, I plan to work with real estate companies to integrate *UKey* into larger smart community platforms to expand its applicability. To enhance user experience, I also plan to add cross-platform compatibility features, such as support for smartwatches and voice assistants, to provide a more seamless experience.

Conclusion

By analysing and reflecting on the three projects through the DIEP strategy, I have deepened my understanding of design and technology application, and at the same time clarified the direction for future improvement. Project 1 developed my observation and analysis skills, Project 2 enhanced my ability to translate theoretical knowledge into practical products, and Project 3 made me appreciate the importance of combining technology with user needs. In the future, I will continue to use the DIEP strategy to systematically reflect on my learning and practice, to ensure the continuous improvement of my personal competence and to create more value for the society

References and Sources

Kahneman, D. and Tversky, A. (1979). *Prospect Theory: An Analysis of Decision under Risk. Econometrica*, 47(2), pp.263-291. Available at: https://doi.org/10.2307/1914185