Rapid Prototyping ——

Reflections on Google's work processes on prototypes

The core of all three videos is centred around prototyping, they are not tied to a specific tool and show the individual design steps in detail. They helped me understand how to from sketches to digital prototypes to the final native prototype, transform abstract concepts into user-friendly designs step by step.

1. **The Power of Visual Empathy**

This is the initial stage of low-fidelity prototyping, where ideas are quickly explored using simple materials. Sketches clearly demonstrate user flow, wireframes, and layout design, providing a basis for subsequent conceptual refinement. Paper prototypes are particularly useful for simulating user interactions and interface connections, and are a more flexible and less costly method of early testing than digital prototypes. It also helps to explore different principles of material design, visualising colour schemes,

elevation and shadows that are critical to navigation and interface clarity.
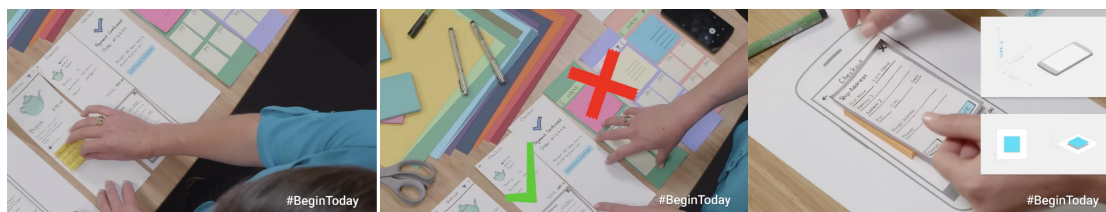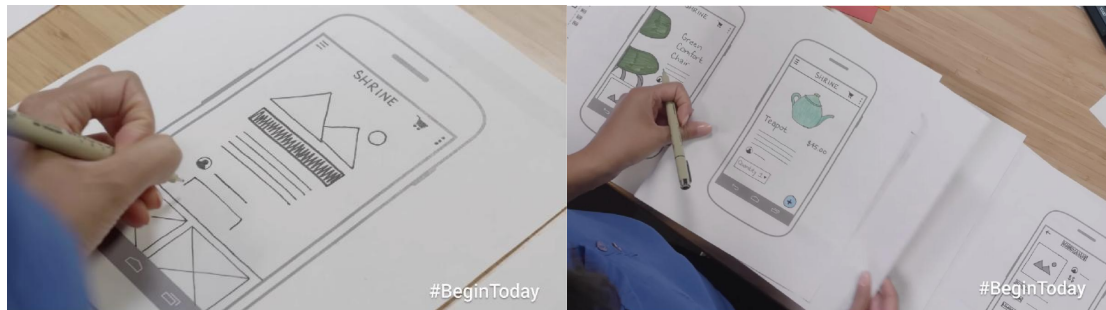
2. **Sketching and Paper Prototyping**

As the design process evolves, digital prototypes can be created to refine and communicate abstract ideas. tools such as Principle and Form create models of application flows, transitions, and gesture-based interactions without the need for actual coding, which is particularly effective for gathering feedback, guiding development, and validating ideas.
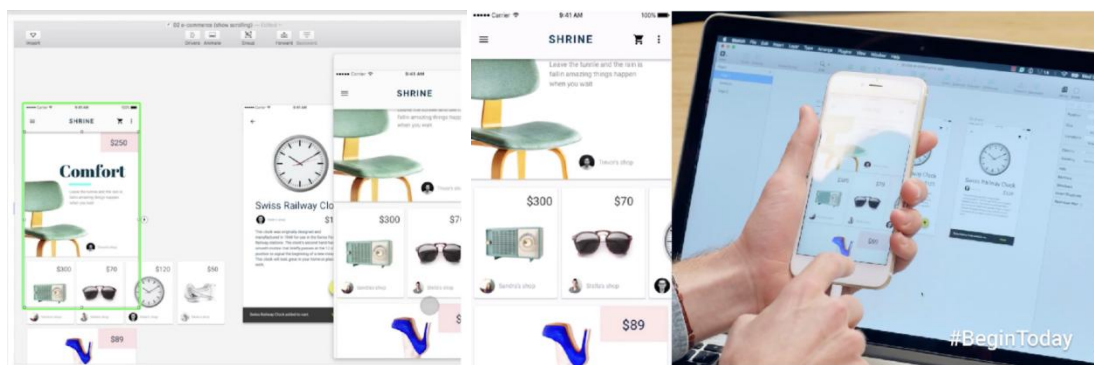
3. Native prototyping

The final stage is to build fully functional prototypes using real devices and real data. This phase involves real interaction experiences, testing ideas in real scenarios, communicating directly with real users, and gathering valuable feedback. Native prototyping is essential for product validation and testing, refining functionality and accelerating the development process, ultimately transforming abstract concepts into user-friendly products.
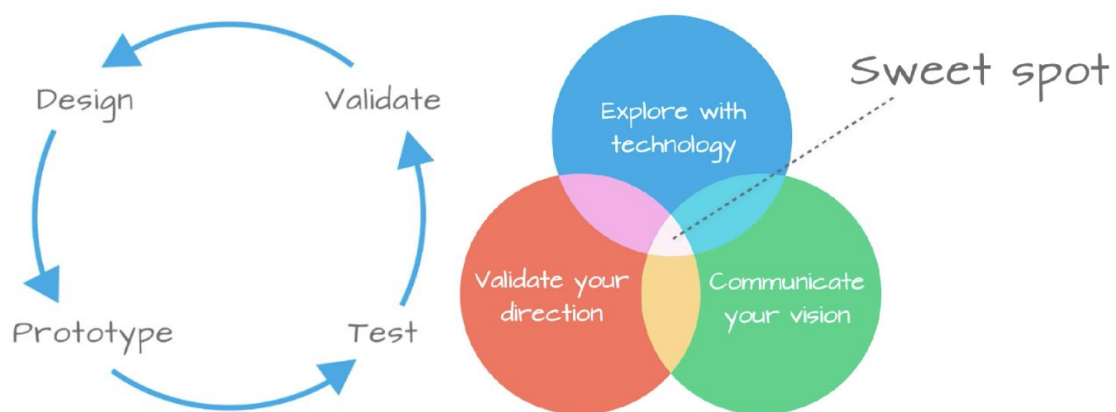
4. Summary

In my future design work, I will follow this systematic desig process, starting with sketches or paper prototypes to explore user flows, layouts and basic concepts, avoiding over-reliance on complex tools at an early stage. As the design progresses, I will focus on using digital prototypes to quickly test and validate ideas, ensuring that the design effectively meets the user's needs and is consistent with the overall vision. To test and validate in real-life scenarios, I prioritise testing with high-fidelity prototypes to ensure that feedback from real users is

incorporated. Through these iterative processes, I will ensure that every design decision is based on user experience,accelerating the process from concept to final product.

Images 1 : Key Notes

Another useful resource about prototyping ——

Book：《Prototyping: A Practitioner's Guide》——Todd Zaki Warfel

Where to find it：

https://southampton.on.worldcat.org/oclc/501921646

Review：

Drawing on his extensive design experience, Todd Zaki Warfel provides a comprehensive and in-depth introduction to the core concepts, tools, and techniques of prototyping. The book not only explains the different types of prototypes from low-fidelity to high-fidelity and their application scenarios, but also demonstrates how to effectively integrate prototyping into product development and user testing through a large number of real-world examples. In addition, the book's discussion of prototyping as a communication and collaboration tool is very valuable. Overall, this book provides a comprehensive guide to the prototyping process, suitable for learners at all levels, and can help readers work more efficiently in their design practice, making it a classic prototyping book worth reading and referring to.
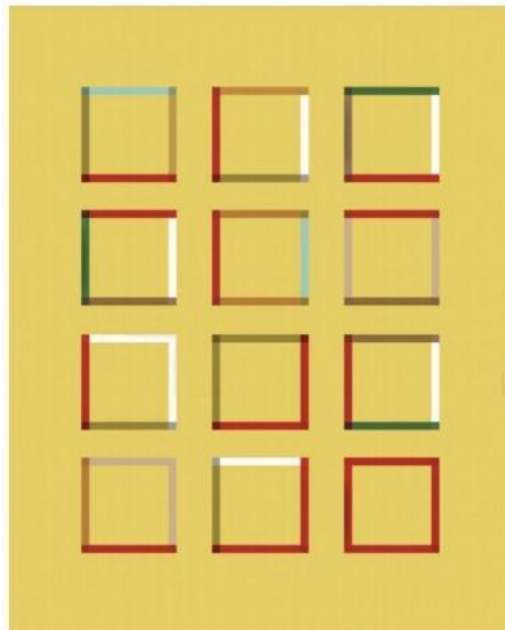
PROTOTYPING

APractitioners Guide

by **TODD   ZAKI   WARFEL** feewond by Cae Gng

用 Rosenfeld

Excerpts from the famous original article:

·"Prototypes are tools for communication,learning,and decision-making.They are the most effective way to illustratethe vision of a design and allow everyone involved to quickly understand and engage with the product."

·"By building prototypes,we can quickly test our ideas,gather feedback,and learn what works and what doesn't,all before investing significant time or money intodevelopment."

·"Low-fidelity prototypes are great for brainstorming and getting feedback early on.High-fidelity prototypes areessential for testing specific interactionsand user flows."

·"The goal of prototyping is not to create a perfect product,but to learn,iterate,and improve."

Image 2:Book cover&Excerpts from the famous original article