

R³ 04 Prototyping

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Task 04 – Prototyping: Summary Notes

Part One: Why Prototype?

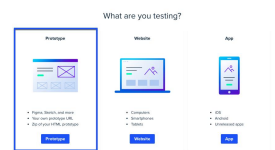
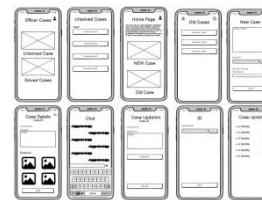
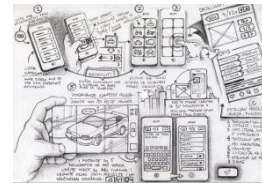
Rapidly materialise ideas

Validate hypotheses rather than prove correctness

Foster learning through failure

Build consensus within teams

Think through practice, not merely at the conceptual level



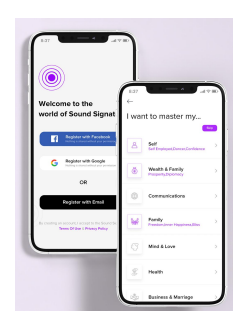
Part Two: The Three Stages of Rapid Prototyping

Sketching Stage — Low Fidelity

Encourages exploration

Avoids emotional attachment

Makes ideas visual and discussable



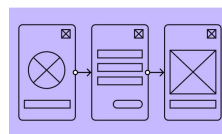
Digitalisation – Medium Fidelity

Testing user flows and interactions

Uncovering usability issues

Focusing on user behaviour

Accelerating feedback loops



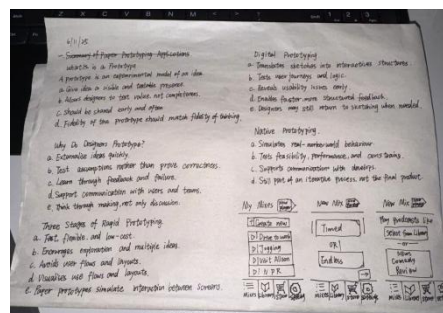
Native – High Fidelity

Testing feasibility and constraints

Simulating real-world behaviour

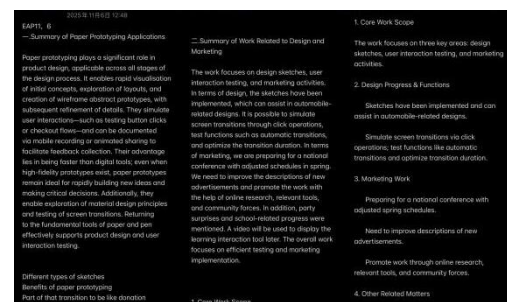
Supporting developer communication

Still in the iterative phase; not the final output



Part Three: Key Takeaways from the Process

Prototyping is an iterative learning journey from exploration to feasibility validation, enabling designers to formulate increasingly precise questions at each stage.



Reflections on the Prototyping Process

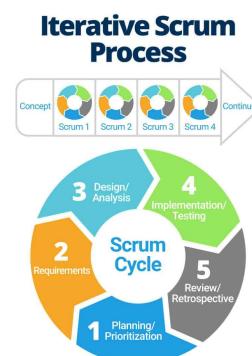
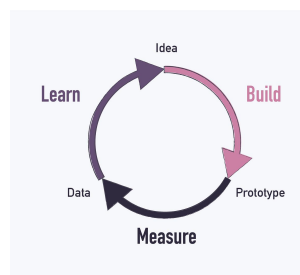
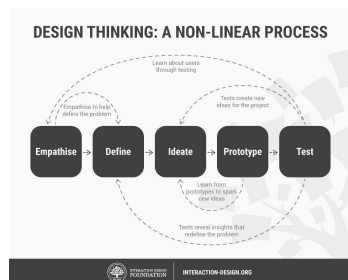
Prototyping plays a pivotal role in design, functioning as a mindset rather than merely a production phase. Through viewing Google for Entrepreneurs' three-part video series on rapid prototyping—sketch prototypes, digital prototypes, and native prototypes—I gained clearer insight into prototyping as an iterative exploration process that facilitates learning, communication, and decision-making.

The sketching phase highlights the importance of speed and openness in early design thinking. Low-fidelity sketches rapidly visualise ideas without requiring precision or completeness. By maintaining prototypes' rough and vague characteristics, designers remain open to multiple possibilities, avoiding emotional attachment to a single solution. At this stage, prototypes primarily serve as tools for thinking and discussion.

Digital prototypes introduce structure and interaction, enabling designers to simulate user journeys and test foundational functionality. Whilst the tools showcased in the video may be outdated, their core process remains highly relevant. Digital prototypes shift focus from designers' anticipated user behaviour to actual user interactions. This stage often reveals usability issues unnoticed in static sketches, demonstrating the value of prototyping as a feedback-driven process.

Native prototypes approach real-world scenarios by testing feasibility, performance, and technical constraints. High-fidelity prototypes are not final deliverables but components within an iterative learning cycle. The videos emphasise that even realistic prototypes serve to expose early issues, not to declare completion.

Collectively, these videos reinforce the principle that prototyping's core value lies not in refining solutions, but in facilitating discovery. Prototypes empower designers to embrace uncertainty, communicate ideas efficiently, and learn from failure. This process-oriented understanding of prototyping will guide my future projects by encouraging early experimentation, continuous iteration, and user-centred evaluation throughout the design cycle.



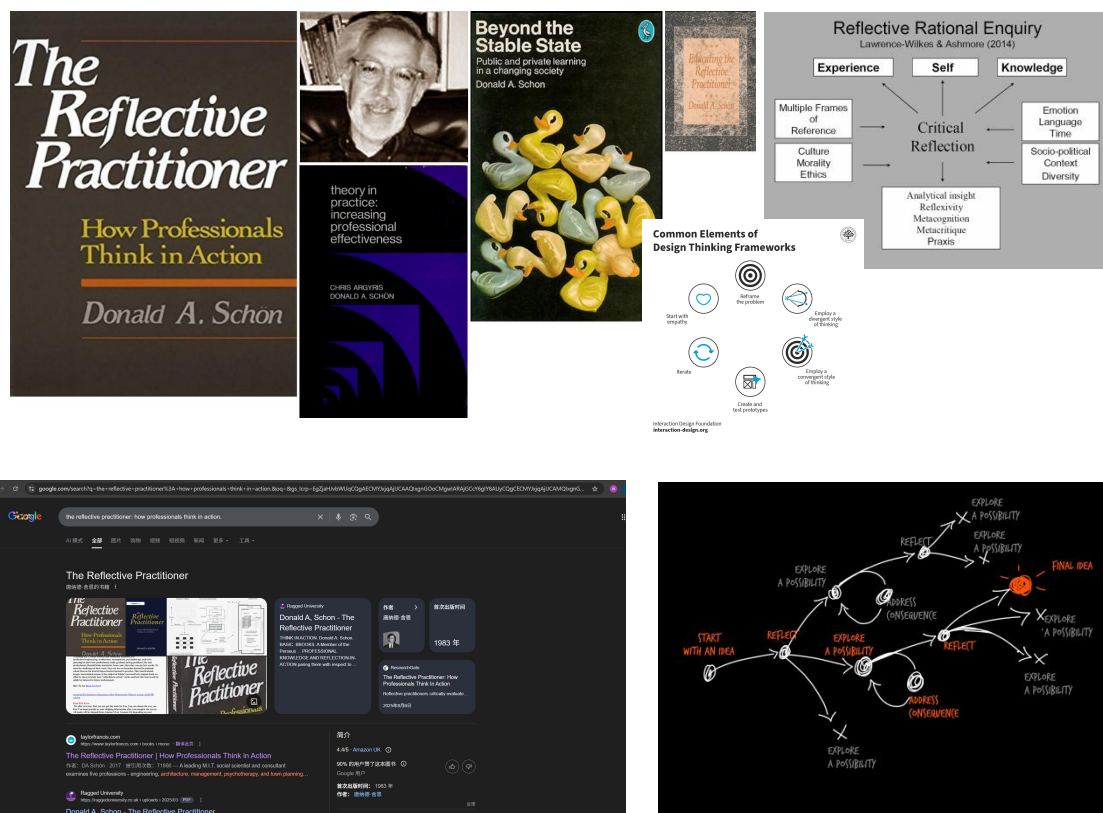
Prototyping as an iterative learning process, rather than a linear production

Supplementary material

Supplementary Resources on Prototyping

Schön, D. A. (1983). *The Reflective Practitioner: How Professionals Think in Action*. Available via: University Library / Google Books

Donald Schön's *The Reflective Practitioner* provides a theoretical foundation for understanding prototyping as a form of reflection-in-action. Schön contends that designers do not merely apply predetermined methodologies, but rather engage in continuous reflection, response, and adjustment of actions through interaction with materials and contexts. This perspective aligns closely with the prototyping process demonstrated in the video—where creating and testing prototypes becomes a mindset rather than a mere execution phase. The work positions prototyping as an ongoing dialogue between the designer, the design output, and emerging insights, reinforcing its value as a learning-driven, exploratory design practice.



This resource emphasises that prototyping is not a linear sequence of steps towards a solution, but rather an ongoing reflective process that supports learning through practice and iteration.

