Research Through Design

Seminar led by Abrar & Vivian

The Origin & Purpose of RtD

Concept of RtD

What is Research through Design?

Research through Design is a way of producing “research” that comes with opportunities to practice the craft of design.
It’s a way of expressing and materializing knowledge and insights, acquired based on hands-on design works, packaged into a scientific format.

Summary of Reading 1

Origin

How and why Research through Design is invented?

Purpose

How RtD is useful for particular kinds of questions and challenges?

Design Research: Research ____ Design

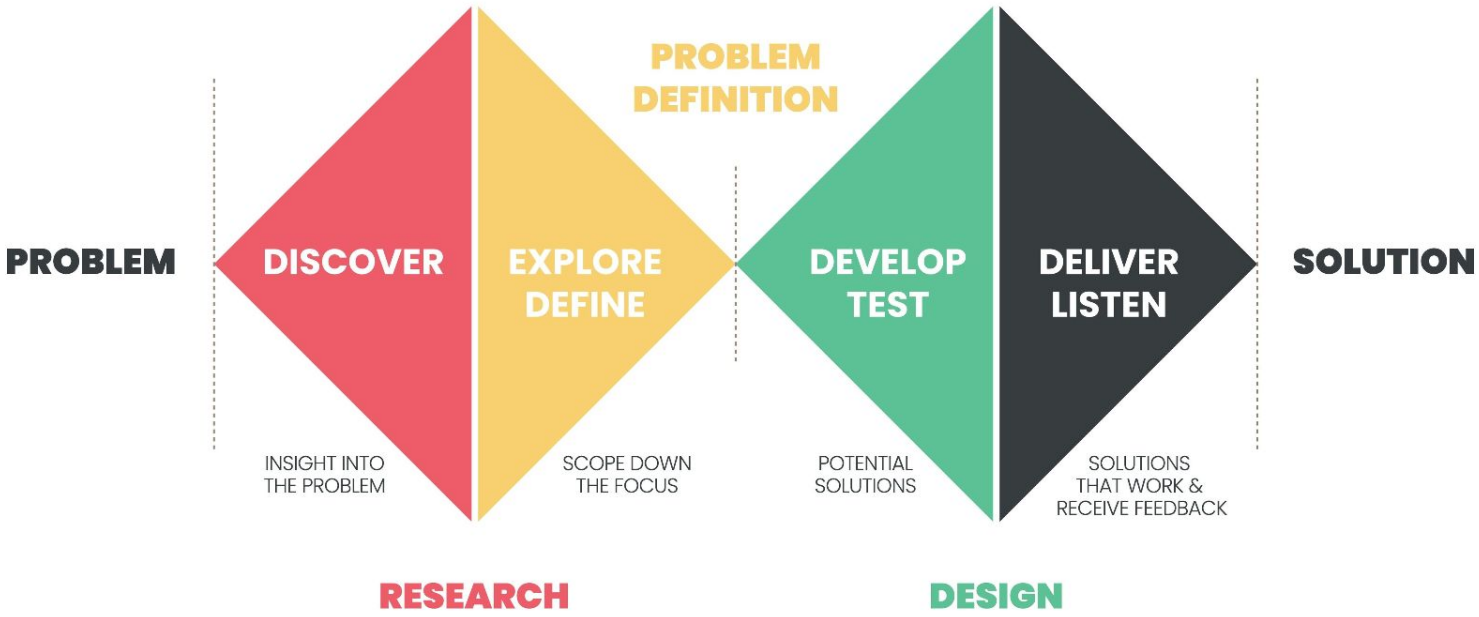
	FOR	INTO	THROUGH
Definition	Information gathering you would do before & during a design project, in order to make good design decisions	When a historian or anthropologist does research about how designers work	See out to address question and design is a tool/method you use for this purpose
Relation between Design & Research	Research first Then design	Study the designers & their work	Research & design done at the same time by the same team
Example	Market research, need-finding	Go to design studio and spend time with designers	Xerox Slow Game Drone Chi

Origin: Why does RtD exist?

The idea of RtD was proposed in the 1990s to give a platform for designers to enter the academic community and for design knowledge to enter the recording system of scientific literature.

- The core problem that Frayling wants to solve is that designers are demanding respect and recognition at universities (degrees & jobs)... but, they don't really have a tradition of research that leads to these.

DESIGN THINKING
PROCESS



Purpose: Why do RtD?

How to design:

- Materials
- Technology
- Process
- Management
- Participation
- Representation

How to design effectively with particular materials or technologies that we don't know how to handle yet.

Design & People

How do people:

- Psychology
- Habits
- Experience
- Empathy
- Social Norms
- Institutions

How do people think and behave in particular situations, perhaps when they engage with particular designs?

Quick Questions

1. What's your overall view on the concept of research through design? What other questions can it address?
2. What are some applications of this concept (in industry/academia) that you could think of?
3. What's your view on how this concept might evolve in the future?

02

What should we expect from RtD?

Scientific Method or Research Through Design?

1. The “Scientific” process of deriving theory

Often converges to one supreme theory (e.g. Newton’s laws of motion) after a process of rigorous eliminations i.e. survival of the fittest

2. Researching through design

Often diverges to multiple theories (e.g. the variations of the Xerox machine) after a process of iterations and making & critiquing

Design theory still falls under research

Divergence is good !

Expectations of creating falsifiable, yet verifiable theory limits conceptual work. A lack of convergence suggests yet another constraint useful for science– the constraint introduced through collaboration (and disagreements), birthing the design from a democratic process of theories

Design is generative

In science, two incompatible accounts of theory are compared based on which one is “better.” Design theory’s generative nature gives birth to similar products with different applications

Removing the abstraction layer by.... abstracting?

Implicit theory in objects

Since design theory is iterative and divergent, there is an embodied theory in every physical abstraction of it during every iteration. Once created, we can ask questions to the prototype (or the final product).

1) What values does it serve?
2) How does one interact with the product?
3) What is the target audience of the users of this product?
4) etc.

Design Theory is best described as a form of annotation

Juxtaposing designs with annotations gives life to the designs while comparing and contrasting it with other forms of design, appreciating it in the process

A subtle combination of a modern frame and traditional upholstery. The frame is an exoskeleton for the soft cushions. Beveled armrests are comfortable

Quick Question & Activity

Do you think the scientific processes traditionally used in physics or biology would benefit from the iterative nature of design theory or is it not compatible?

Form groups of 2-3 people and choose an object near to you to annotate. What are the ways you can iterate (hence, improve) the product?