## CS247L

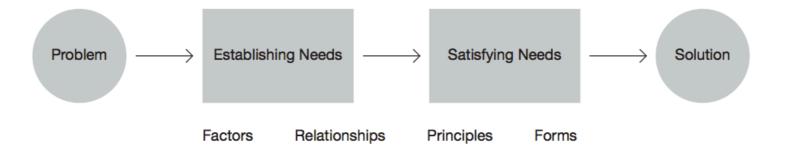
More Brainstorming Techniques May 14th Wednesday (96 F today..)

- Tired of Design Thinking some alternative frameworks
- Observation + Brainstorming
- Individual brainstorming VS Group brainstorming
- Cr-apps and apps
- Brainstorm under constraints

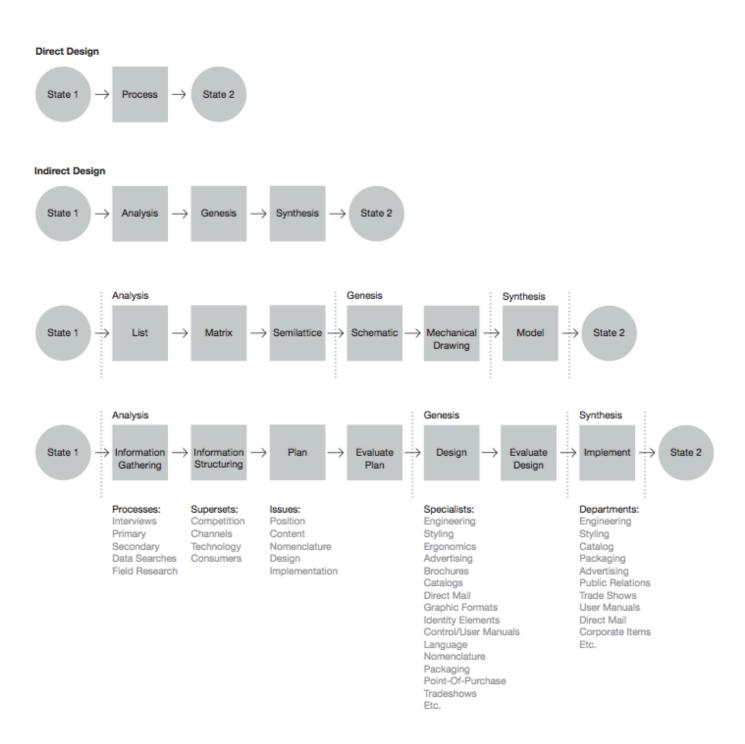


http://www.dubberly.com/wp-content/uploads/2008/06/ddo\_designprocess.pdf

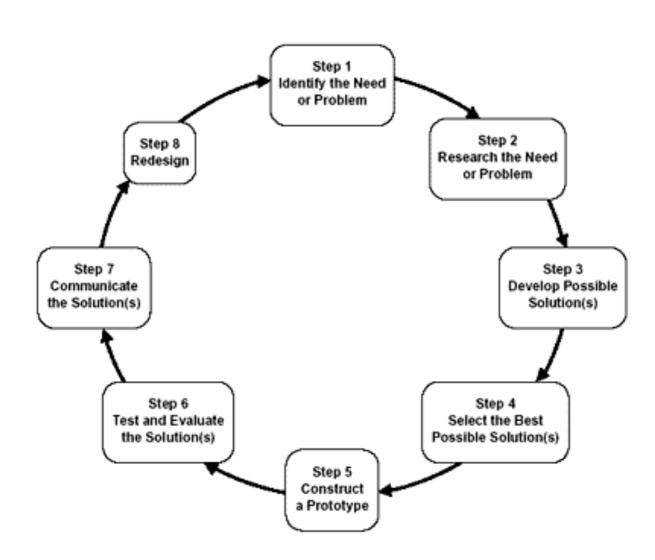
## JJ Foreman (1967)



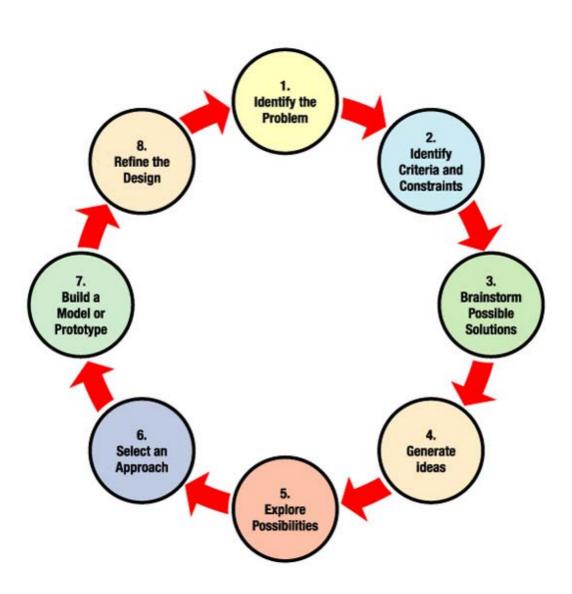
## Jay Doblin (1987)



### Massachusetts Department of Education



## NASA



### HP



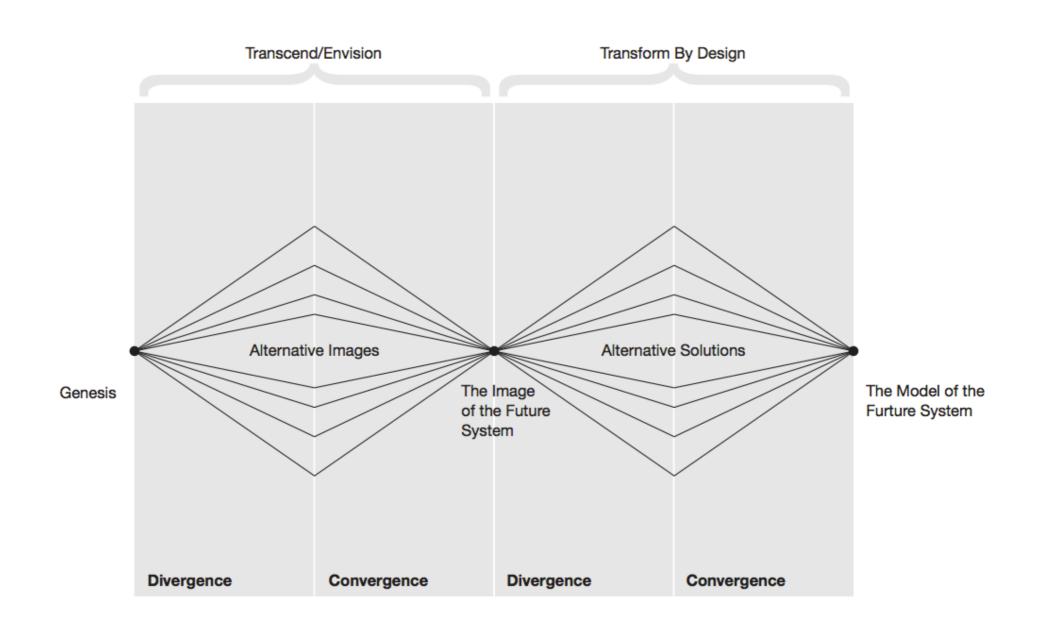
#### Our Focus:

- User analysis, requirementsProduct definition, design, and development for ease of use and usefulness

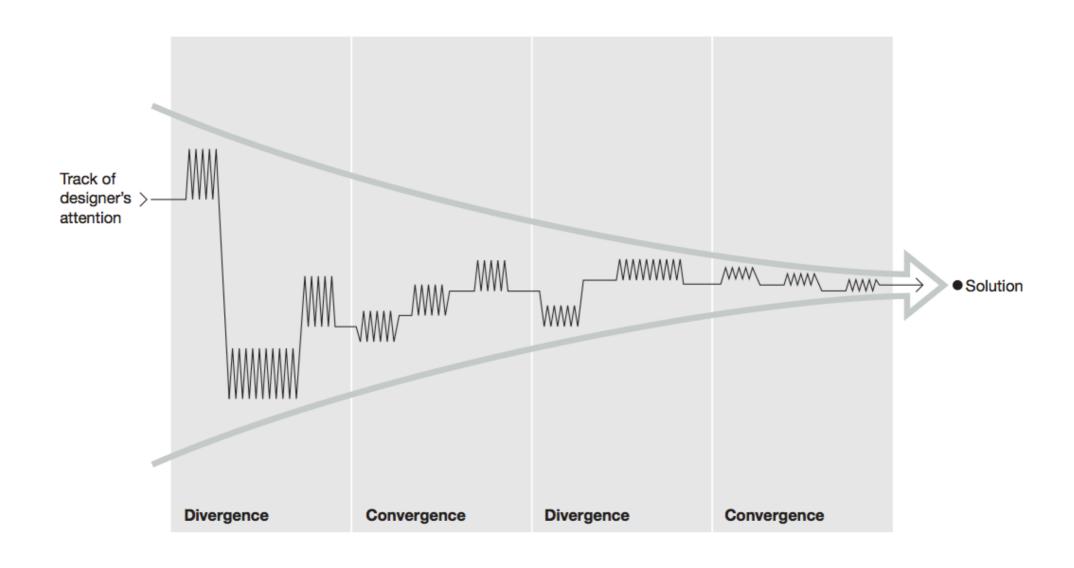
#### Other Elements of the Customer Experience:

- Ordering, deliveryDocumentation
- Installation
- Integration with 3rd party products
- Customer support

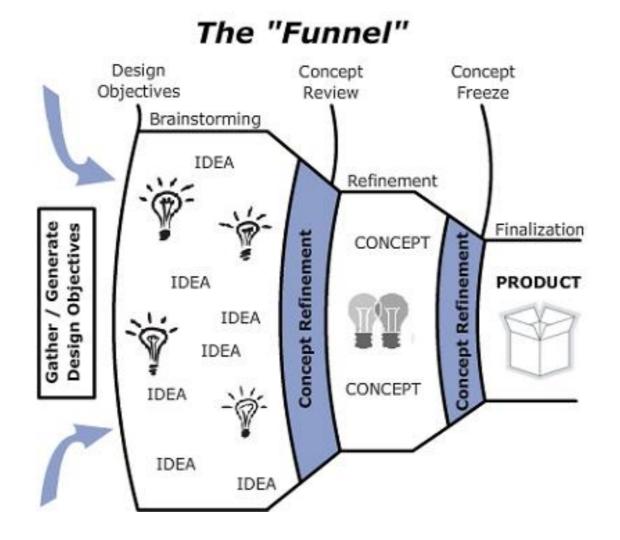
## Bela H. Banathy (1996)



## Nigel Cross (2000)



## Goddard Technologies



### Clement Mok and Keith Yamashita

#### Defining the problem

1

Defining the problem

2

Envisioning the desired end state (knowing what victory looks like) 3

Defining the approach by which victory can be achieved

4

Inciting support and then action

#### Innovating

5

Seeking insight to inform the prototyping of the solution 6

Prototyping potential solutions

7

Delineating the tough choices

8

Enabling the team to work as a team

#### Generating value

9

Choosing the best solution then activating it

10

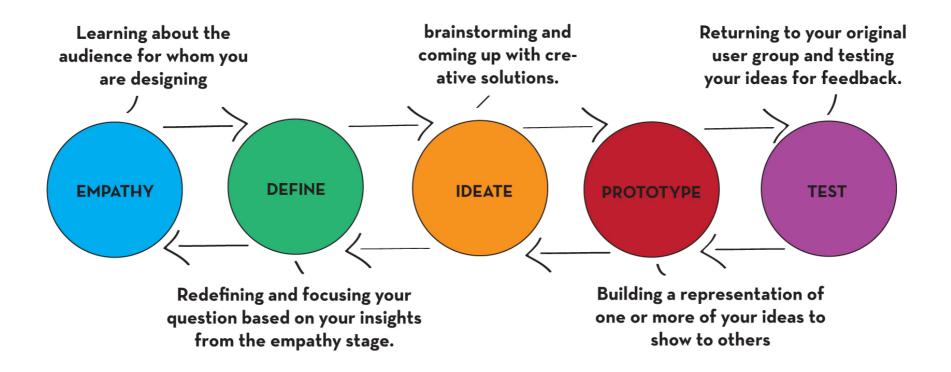
Making sure people know about your solution

11

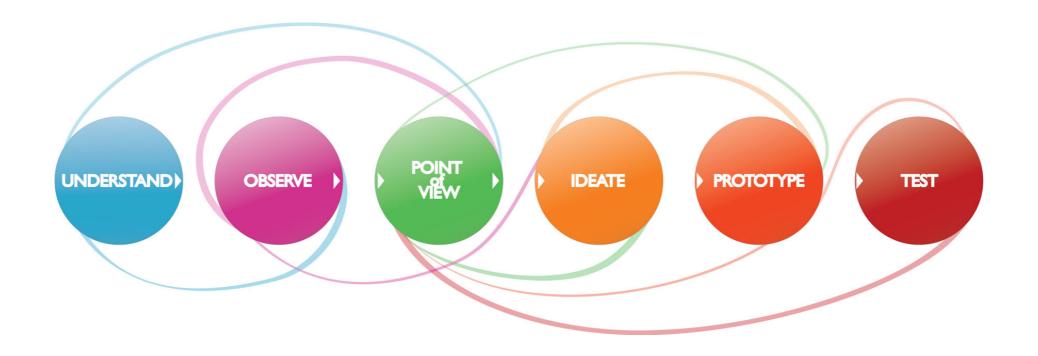
Selling the solution 12

Rapidly learning and "tacking" based on your successes and failures

## Design Thinking 5 ball



## Design Thinking 6 ball

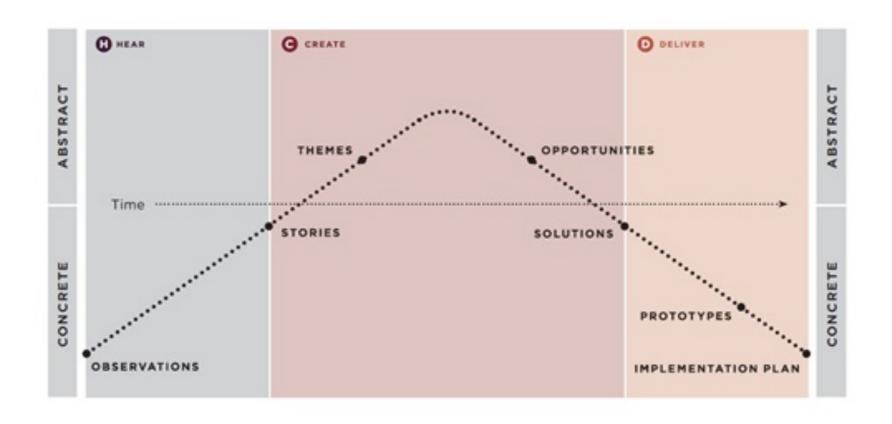


http://vimeo.com/38870717

## IDEO



## IDEO

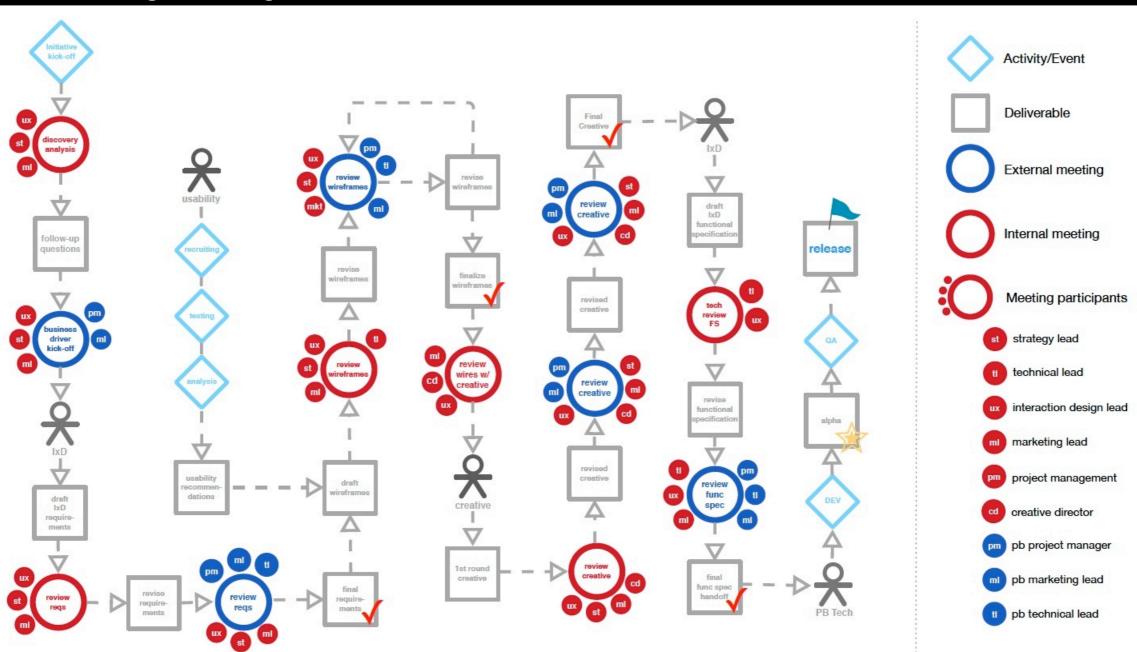


## Dubberly

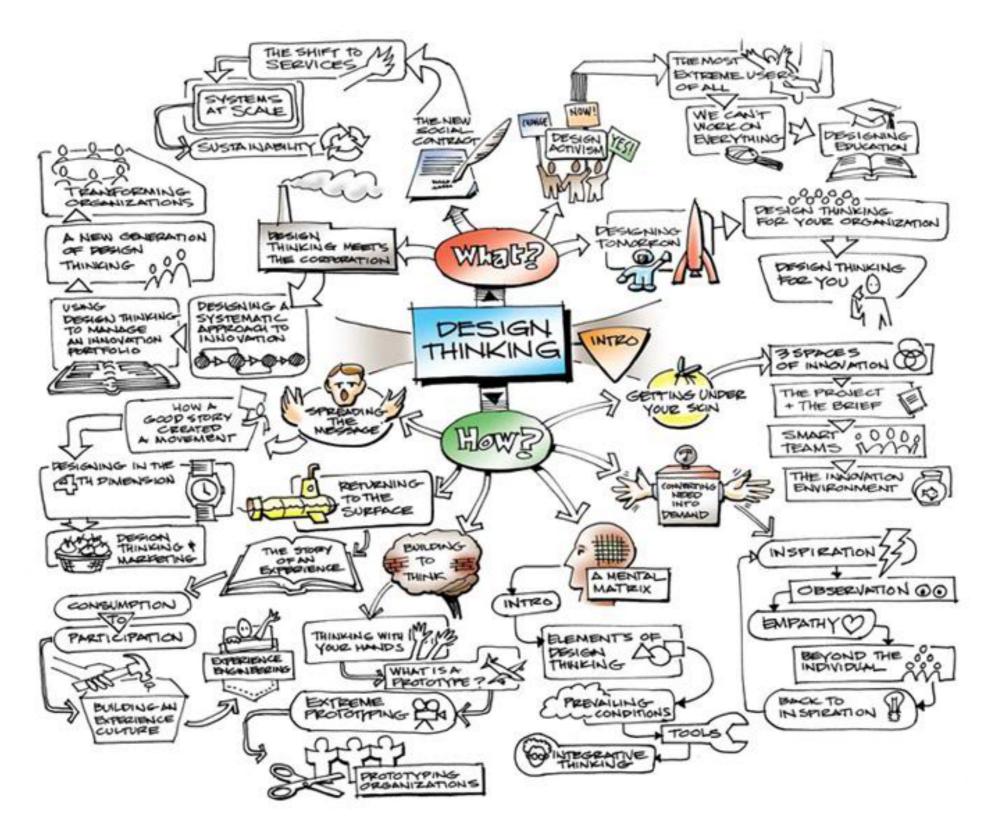


## 8 Shapes

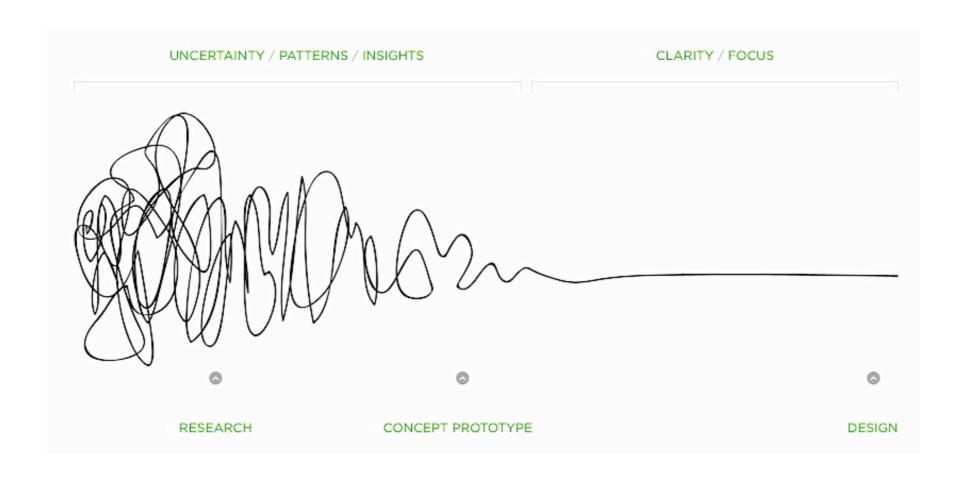
#### Experience Design Strategic Process Flow

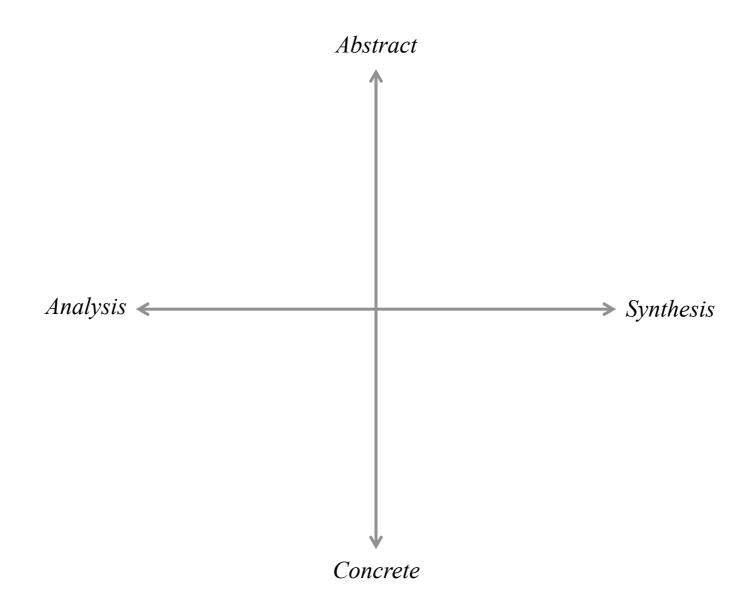


#### Tim Brown



### Damien Newman of Central Office





#### Abstract

## Frameworks (Insights)

#### Digest customer and user needs data at the abstract level

- Ladder up and down the hierarchy of needs Use, Usability and Meaning
- Hypothesis for why
- Hierarchies
- Create timelines
- · Experiment with two-by-twos

#### *Analysis* ←

#### Ethnographic research methods reveal needs

- Capture activities, environments, interactions, objects, users (AEIOU)
- Workarounds
- Explicit needs
- Unspoken needs
- Stories

## Observations (Contexts)

## Imperatives (Ideas)

Imperatives focus on benefits to customers, guide and inspire the design and development team

- Selected Needs Use, Usability and Meaning
- Design Principles
- Metaphors
- Sustainable advantage (value proposition)

#### → Synthesis

#### Concept generation, analytical and intuitive

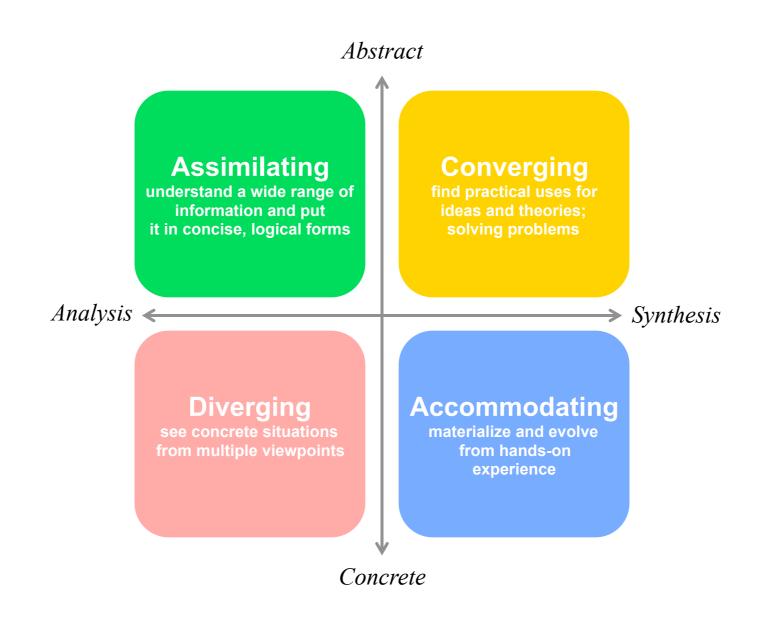
- · Embodiments of your offering
- Specific implementations
- Displacement

Connect back to user needs as well as business and brand needs in concept selection

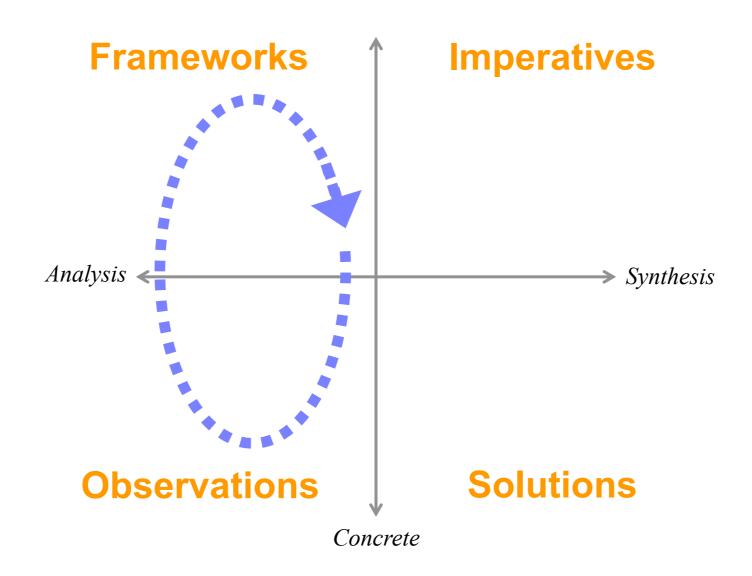
## Solutions (Experiences)

Concrete

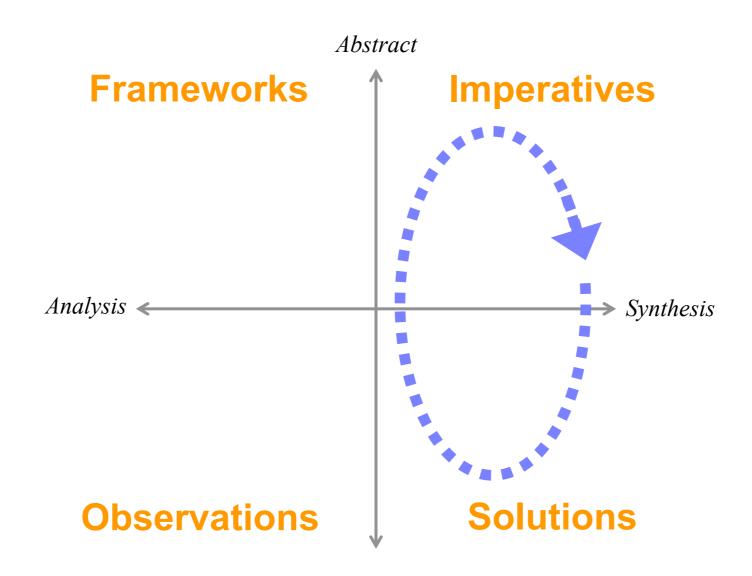
### Kolb Learning Model



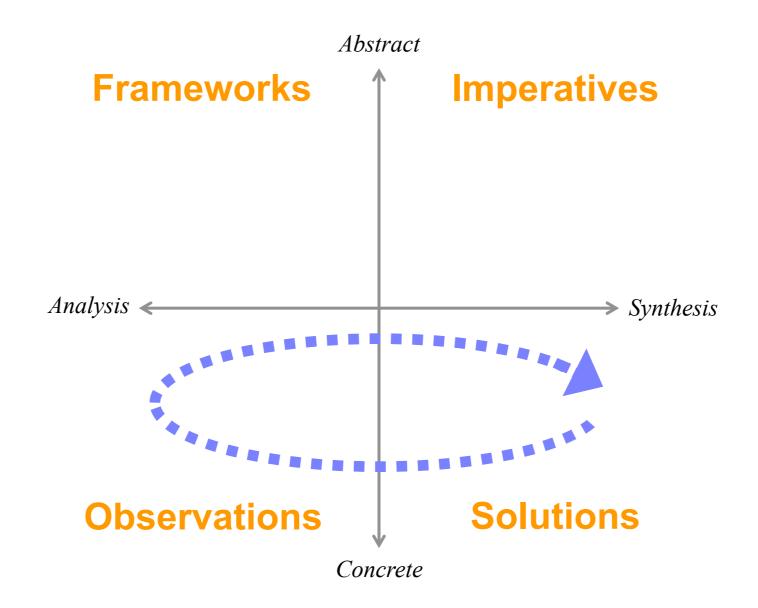
## Getting a PhD



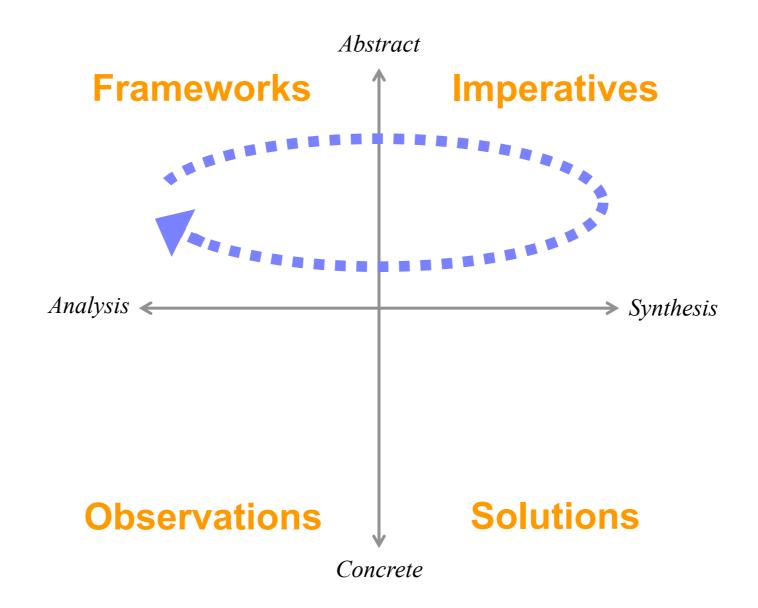
## Polishing a turd

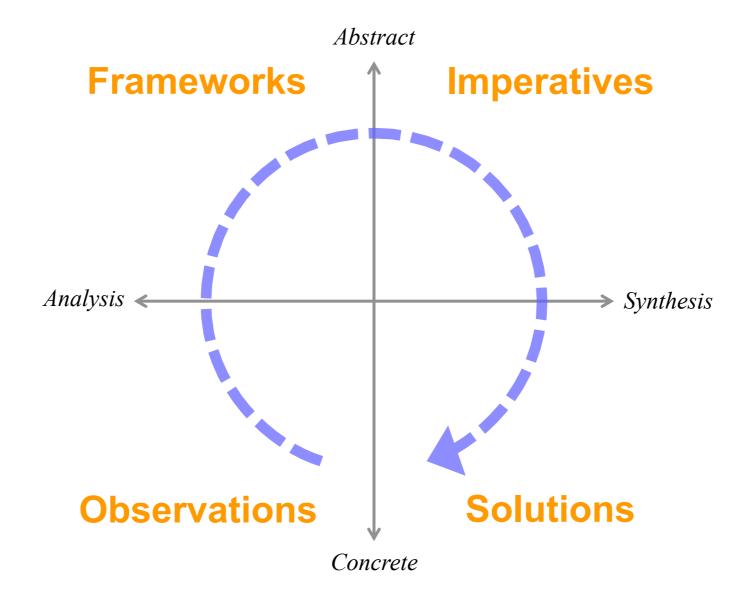


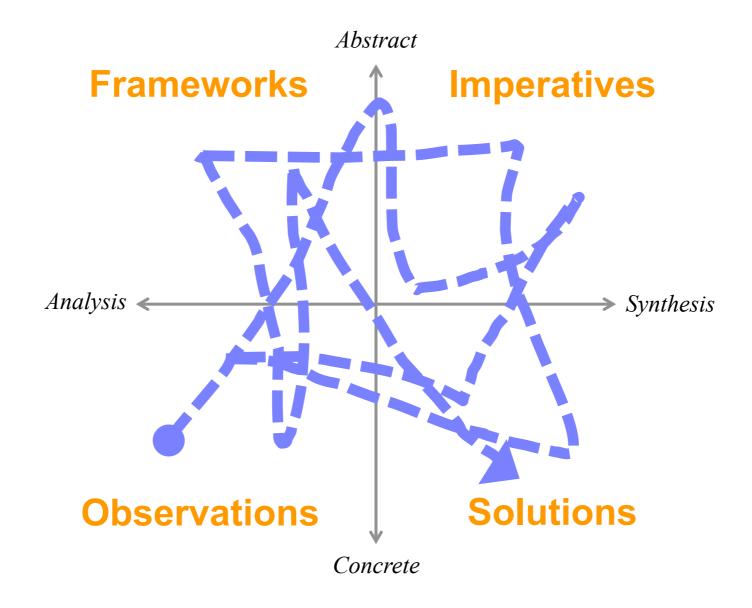
## Design doing?



## Design thinking?







Observation revisited

People are constantly making sense of the world using there own internal cultural system.

Introducing new ideas -> explaining how it fits into the existing cultural system.

If you don't explain it right -> people will figure out by themselves (which you don't want).

Observing **cultural conflicts** between you as an observer and the subject you're observing.

## Observing Activities, Environment, Interactivity, Object, Users

### Namibia, Japan, USA, and Mongolia.

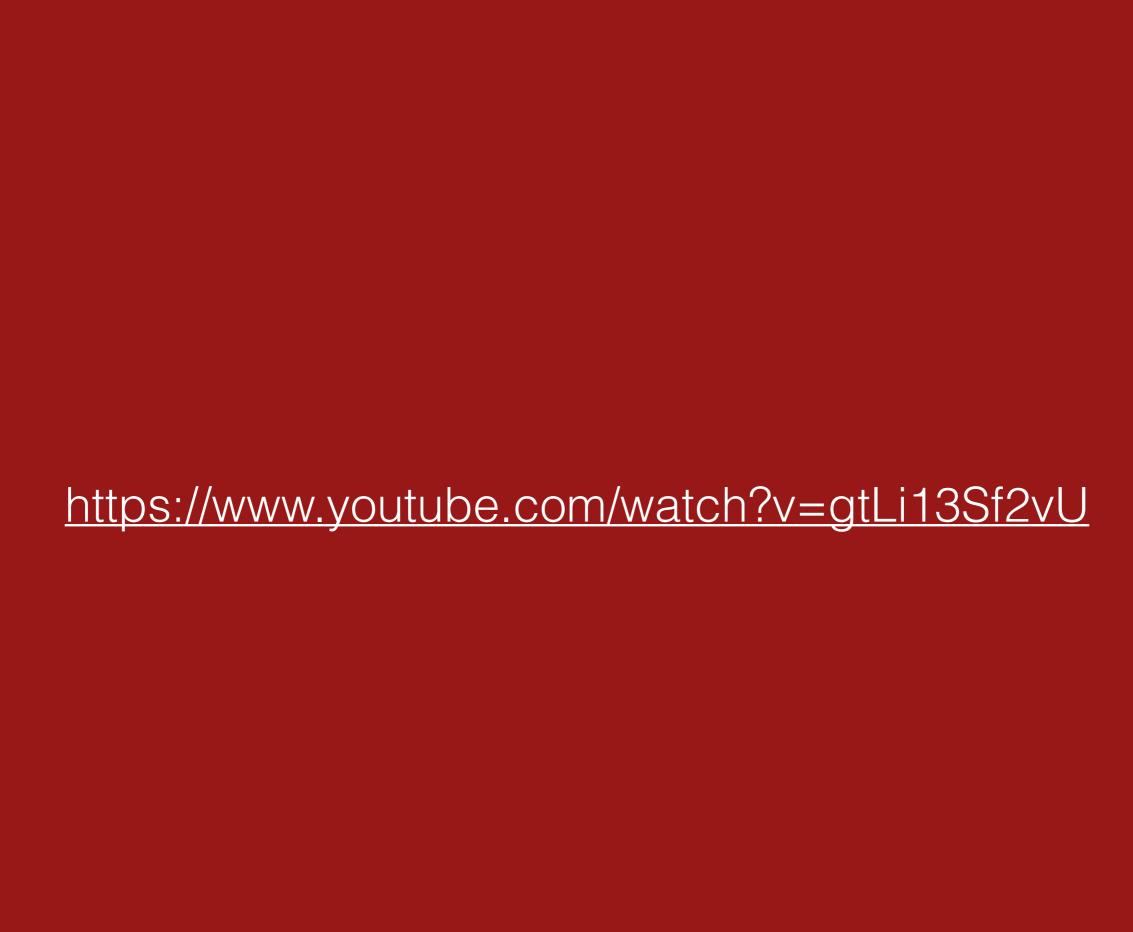
https://www.youtube.com/watch?v=O3NXXai40OY

## Observing Activities, Environment, Interactivity, Object, Users

What are the cultural differences you see? What are the inferences you can make?

# More attention More control Less control Less attention

## App vs Crap-app Individual vs Group Brainstorming



## Design a solution that worsen the communication issues among the two parties.

Group 2. Individual brainstorming 5 minutes + converging 10 minutes

Group 1. Group brainstorming 5 minutes + converging 10 minutes

## Design a solution that improve the communication issues among the two parties.

Group 1. Individual brainstorming 5 minutes + converging 10 minutes

Group 2. Group brainstorming 5 minutes + converging 10 minutes

## Design a solution that improve the communication issues among the two parties under different budget.

Group 1. \$100

Group 2. \$10,000

Group 3. \$1,000,000

## Good luck with upcoming milestones