KICKSTARTING DESIGN THINKING

Davide ‘Folletto’ Casali
PART I

WHY DESIGN?
Complex Systems
No simplification  Simplification  Banalization

UNMANAGEABLE  UNUSEFUL

Thanks to Tullio Tinti
Societal problems are inherently different from the problems that scientists and perhaps some classes of engineers deal with. They are inherently ‘wicked’.

H. Rittel, M. Webber
Wicked problems don’t have clearly defined boundaries.

Wicked problems don’t have a point when they are solved.

Wicked problems have always more than one explanation.

Wicked problems solution attempts change the problem definition.

Wicked problems require full responsibility.

Wicked problems bleed into one another.

Wicked problems have no solution template.

Wicked problems are interconnected to each other.

Wicked problems have no scientific approach.

Wicked problems are unique.
MEADOW’S
12 LEVERAGE POINTS

12. Constants
11. Buffers
10. Material
09. Delays
08. Negative loops
07. Positive loops
06. Information
05. Rules
04. Change & self-organize
03. Goals
02. Paradigms
01. Trascend paradigms

Meadows D. (1999) Leverage Points, places to intervene in a system
Designers are forever bound to treat as real that which exists only in an imagined future and have to specify ways in which the foreseen thing can be made to exist.

John Chris Jones, Design Method
Humans
Issue: Solution First vs Problem
No real understanding
ISSUE  
Too close to the problem  
No view of context
Keeping up with global complexity demands a conscious understanding of our cognitive, psychological, physiological peculiarities, and of their limits.

Manifesto Ibridi
ISSUE

Opening without closing
No Focus, No Goal
ISSUE

Closing too soon

Bias, Prejudice
The most enlightening moments came from understanding and applying the Open – Explore – Close phases.

Dave Gray
Iterate
ISSUE
Iteration of one
Not really a loop
ISSUE
Iterate without vision
Not going anywhere
Be water my friend.

Bruce Lee
Incremental + Radical Innovation
ISSUE
Fear of jumping
No real change
ISSUE

People resistance to change

Expect and manage
Incremental innovation is necessary to transform the radical idea into a form that is acceptable to those beyond early adopters.

Verganti & Norman
Experiment
ISSUE

Fear of failure

Failure is intrinsic
ISSUE: Failing without learning
Learn and build up
Design thinking stresses the need to rapidly prototype the solution so that the designers can get feedback as quickly as possible.

Sarah Soule
Design thinking is a human-centered approach to innovation that draws from the designer's toolkit to integrate the needs of people, the possibilities of technology, and the requirements for business success.

Tim Brown, IDEO
USER CENTERED DESIGN: ISO 13407 (1999)

Identify need of user centered design

- Understand & specify the context of use
- Specify the user & organizational requirements
- Evaluate design against requirements
- Produce design solutions

System meets specified functional, user & organizational requirements
DIFFERENT MODELS TO DO DESIGN THINKING

- **IDEO**
  - Inspiration
  - Ideation
  - Implementation

- **XPLANE**
  - Discover
  - Concept
  - Design
  - Do

- **CHESKIN**
  - Envision
  - Explore
  - Create
  - Inspire
  - Express

- **CONIFER**
  - Research
  - Catalog
  - Synthesis
  - Insights

- **COOPER**
  - Research
  - Modeling, Scenarios
  - Framework
  - Design
  - Communicate

- **FROG**
  - Discover
  - Design
  - Deliver

- **FITCH**
  - Discover
  - Define
  - Design
  - Do

- **N MELVILLE**
  - Explore
  - Discover
  - Concept & Design
  - Implement & Assess

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Empathize
Define
Ideate
Prototype
Test

from An Introduction to Design Thinkin
Empathize

Observe  Engage  Listen
PART IV
DESIGN THINKING SPEED RUN
I hear and I forget.
I see and I remember.
I do and I understand.

Confucio
THIS IS A SPEED RUN

There are many more kinds of activities that can be done.
THE VISUAL ALPHABET

point line angle arc spiral loop

oval eye triangle rectangle house cloud
Form a team
Pick a challenge
Empathize

Un/Knowns
Empathize

Speak To
Identify the people you want to speak to

- Involved
- Affected
- Experts
Empathy Map
Generate Ideas
10’ individually · alone · no speaking
share ideas
vote ideas
Storyboarding
create a storyboard
LUKE LIGHTS-HIS LAZER SWORD & MOVES TO ENGAGE.

NOTE: NO STEAM BECAUSE IN A MOMENT BOTH LUKE & VADER RISE ON WIRES INTO CAMERA & IT MAY NEED A Rotoscope THEN OUT. CAMERA ON CRANE ARM SWINGS R-L.

HEY ENGAGE! ACTION BACK CLOSER TO CAMERA.Again close in.

LUKE IS NOW CONTROLLED & FIGHTING WITH CALMNESS. HE BAKES ROUND AND SUDDENLY.l

ATTACKS WITH FAST SHOES PLAY. VADER BACK TO CAMERA. AT THIS ANGLE LUKE CAN MAKE FAST MOVES WITHOUT COMMITTING ANY EPEE CARRIES & WE CAN OPTICALLY PUT IN A FIRE WARM DISPLAY OF LAZER BEAM.

VADER BACKS away.
Try with another team
find another team, and share your storyboard
show and tell
PART V

WRAP UP
To complicate is easy, to simplify is hard. To complicate, just add, everyone is able to complicate. Few are able to simplify.

Bruno Munari
Thanks.

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