



CBI@ Mediterranean  
research and design  
Tuuli Utrainen

Research at **CERN** looks at interaction between **particles**

Research at **CBI** looks at interaction between **team members**

Research at CERN looks at interaction between particles

Research at CBI looks at interaction between team members

ME310@Stanford

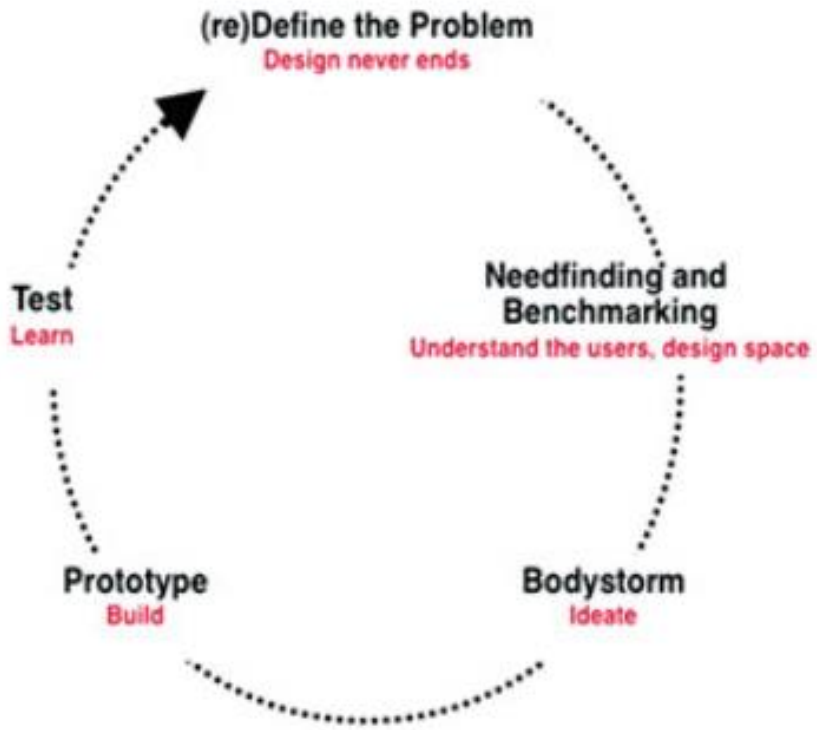
PDP@Aalto

IDBM@Aalto

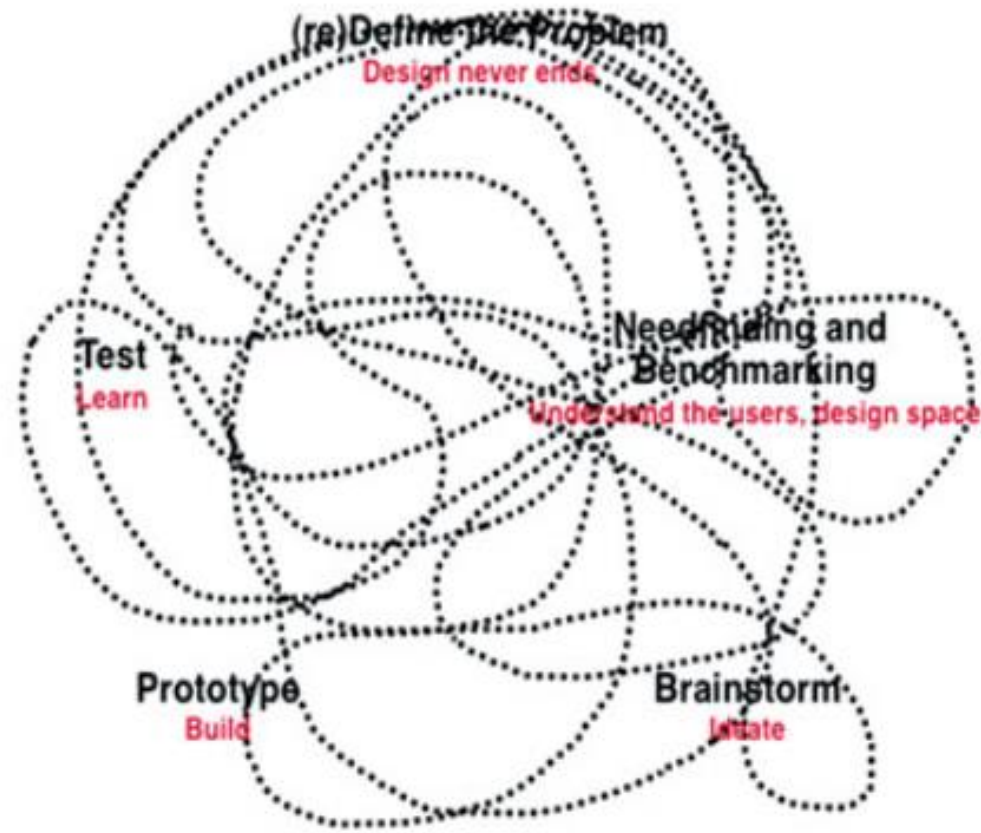
Center for Design Research at Stanford

Larry Leifer

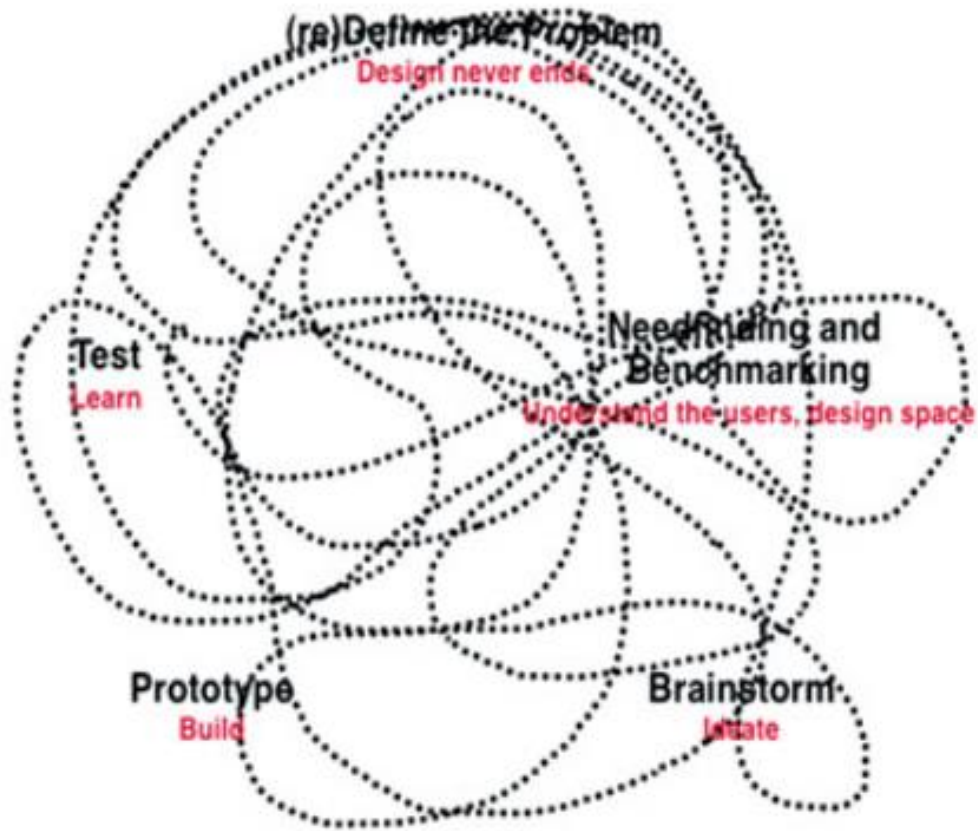
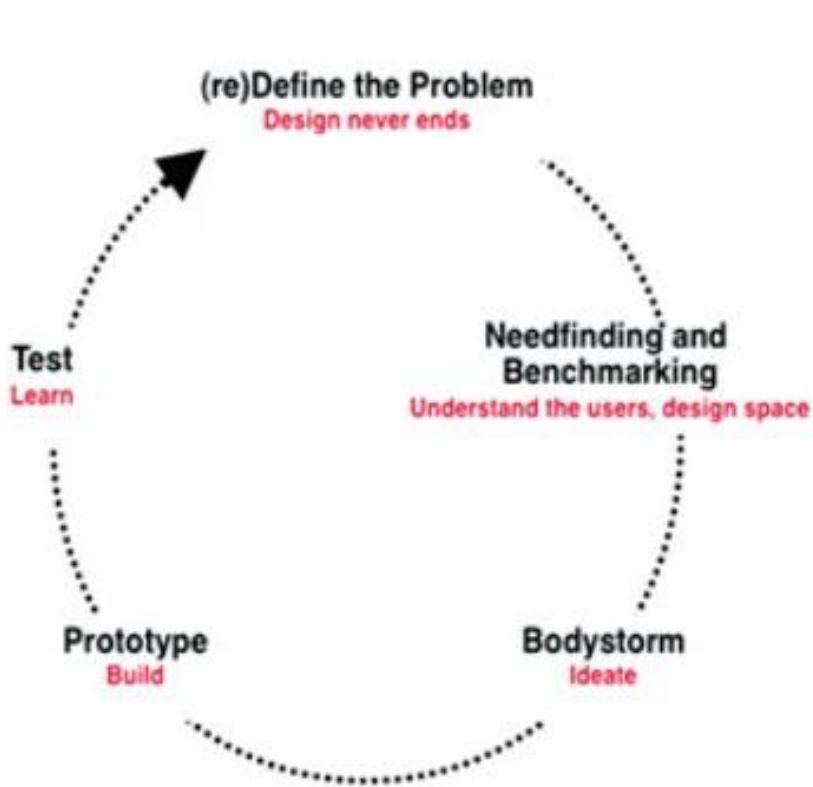




*Theory*



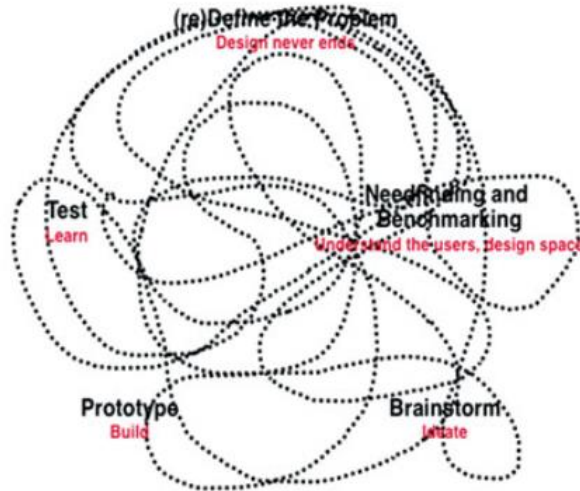
*Practice*

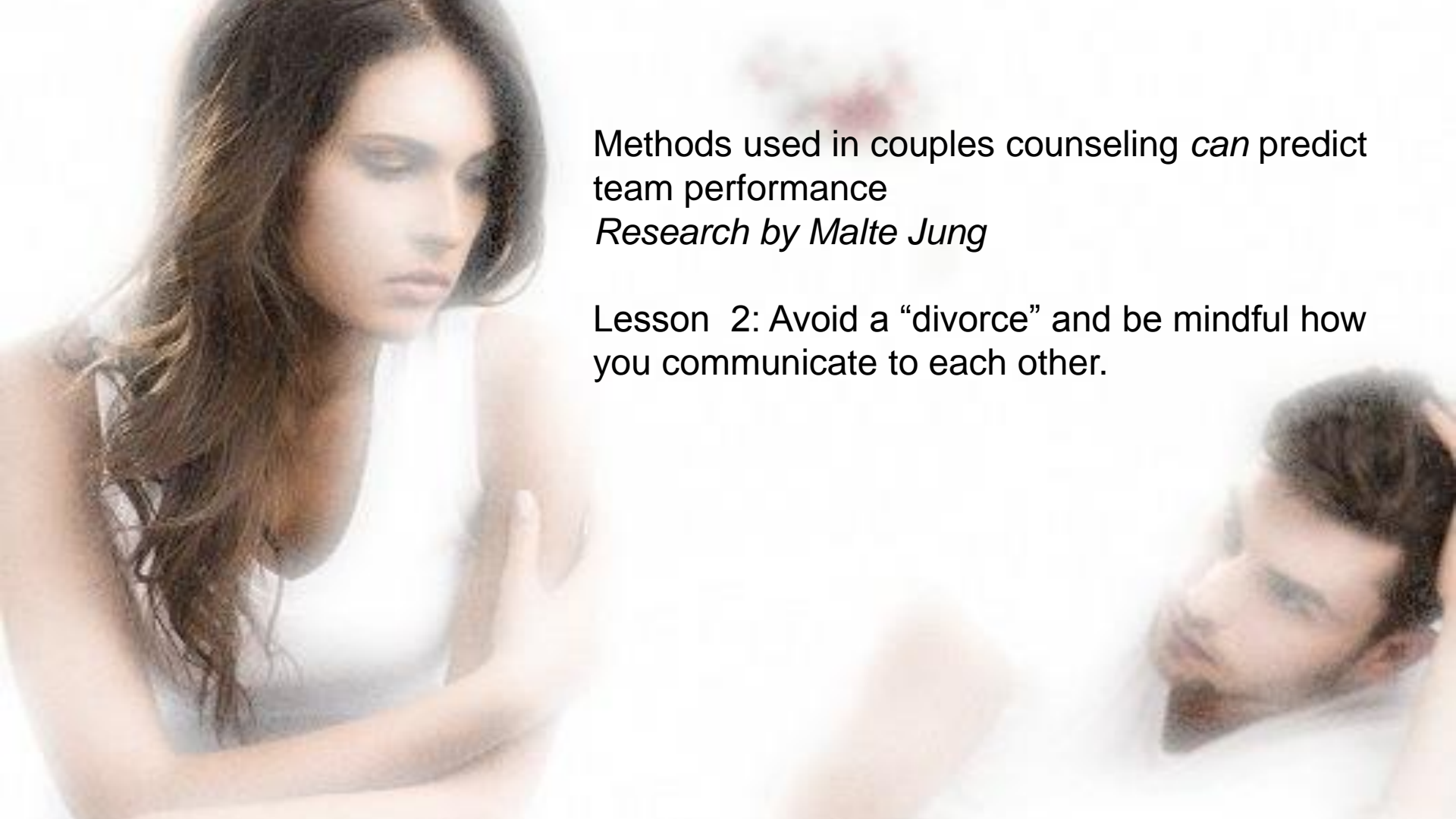


*Though design is not science, there are benefits in understanding better, what is going on.*

Teams with more transitions between the different modes did better  
*Research by Micah Lande*

Lesson 1: Start and close modes and be conscious over the switches.





Methods used in couples counseling *can* predict team performance

*Research by Malte Jung*

Lesson 2: Avoid a “divorce” and be mindful how you communicate to each other.



## Example from CBI II

What kind of difference does **testing** make?

How can we measure that?

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### **Egg drop challenge revised** *Martin Steinert & Carlo Kriesi at NTNU*

A: Not allowed to test the design  
B: Made to test the design

Measured height will tell numerical difference between testing and not testing.

+ confidence

## Example from CBI II

What kind of difference does **testing** make?  
How can we measure that?



### **Egg drop challenge revised** *Martin Steinert & Carlo Kriesi at NTNU*

A: Not allowed to test the design  
B: Made to test the design

Measured height will tell numerical  
difference between testing and not  
testing. **69cm / 175cm**

+ confidence **44%**

## Example from CBI last year

What kind of difference does access to **primary** information/observation make?



## Project progress & outcome evaluation

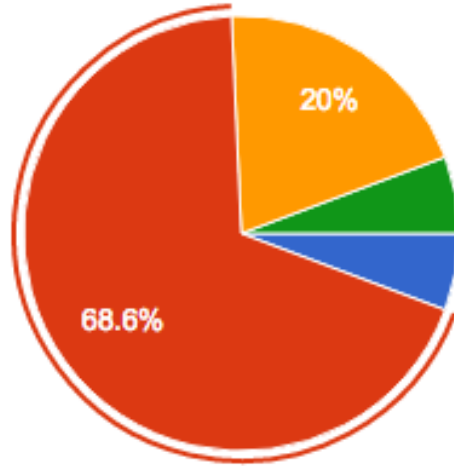
*Ideasquare & CBI teaching team*

Correlation between early stage access to primary information / observation resulted in finding interesting and meaningful problems faster, and getting to prototyping creative solutions sooner. Outcomes better defined.

Which of the following you think would be a starting point for a project with a maximum societal impact?

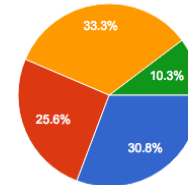
(35 responses)

**CBI  
last  
year**



- A challenge based on a new business opportunity?
- A challenge based on a new user need opportunity?
- A challenge based on a new technology opportunity?
- Other

**IfC**



- your own challenge, ideated and put together in your team?
- the challenge framed by an organization as happened now? (need pull)
- challenge formed starting from the technologies by CERN KT/ Polito TT groups? (tech push)
- Other

Technology transfer in the projects:

**“I haven’t heard from  
them in a long while”**

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- *CBI student*

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- *CBI student*
- *Knowledge transfer expert*



## Technology transfer in the projects:

“I haven’t heard from  
them in a long while”

DON'T WORRY BE  
CRAPPY

- *CBI student*
- *Knowledge transfer expert*

**DT business as  
usual**

**Reimagining the future**

**X**

---

**DT business as  
usual**



**Reimagining the future**







**joint  
production  
n**

**futures**

**CERN tech.  
adoption**

**CBI**



<http://hyper-reality.co/>

# Produce utopia & dystopia (we have papers & will collect them)

## Be unique to your project, consider...

### **Cultural/social changes**

*E.g. Heteronormative people shift from hegemony to periphery*

### **Economic changes**

*E.g. new bit coin type of a currency is used globally to transmit value.*

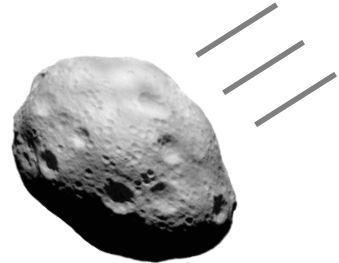
*Euros and dollars lose their value.*

### **Political changes**

*E.g. direct voting takes over or governments are no longer needed*

### **Technological changes**

*Wireless energy, hacking DNA at home, AI combined with robots*





Utopia/dystopia

Draw here

visualization

team name:

Write here

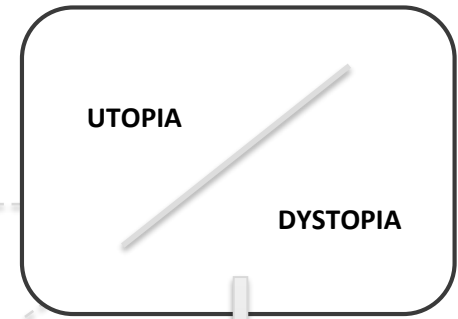
description

Share with another team & find

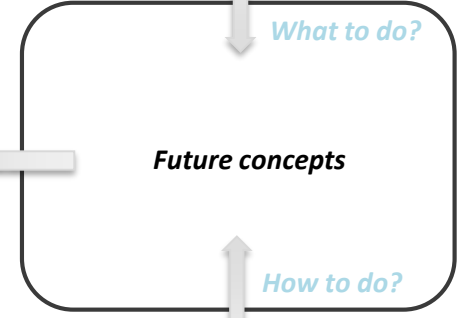
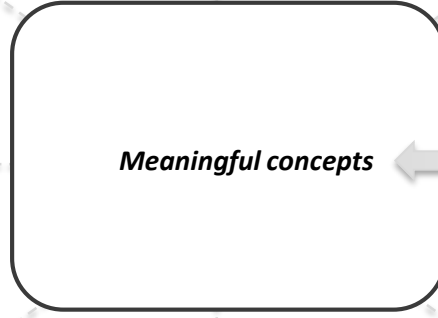
1 design requirement from utopia

1 design requirement from dystopia

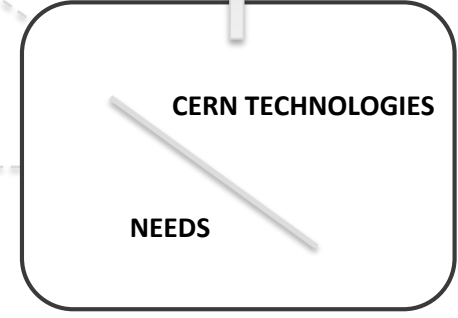
Super-System



System



Sub-System



Past

Present

Future

*What to do?*

*How to do?*