PD233: Design of Biomedical Devices and Systems
(Lecture 3 – Empathy)

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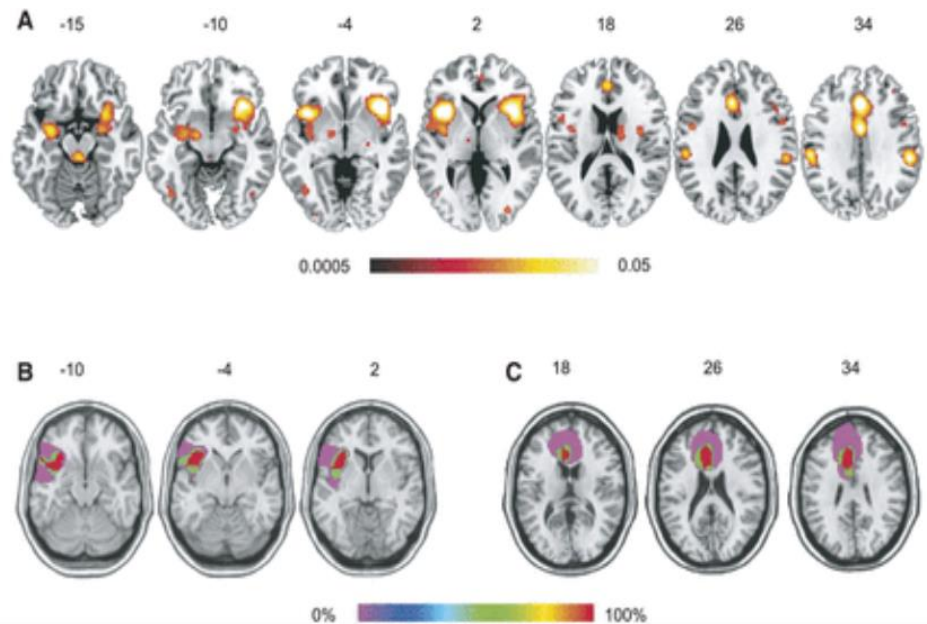
CPDM, IISc

Course Website:
http://cpdm.iisc.ac.in/utsaah/courses/

Empathy

- Human being have ability of relate to what others are feeling

- Empathy is also neuro-physiological

Anterior insular cortex is necessary for empathetic pain perception, Brain. 2012;135(9):2726-2735. doi:10.1093/brain/aws199

Empathy

From evolutionary point of view empathy is perhaps essential for our survival as species

-not just survival of the fittest
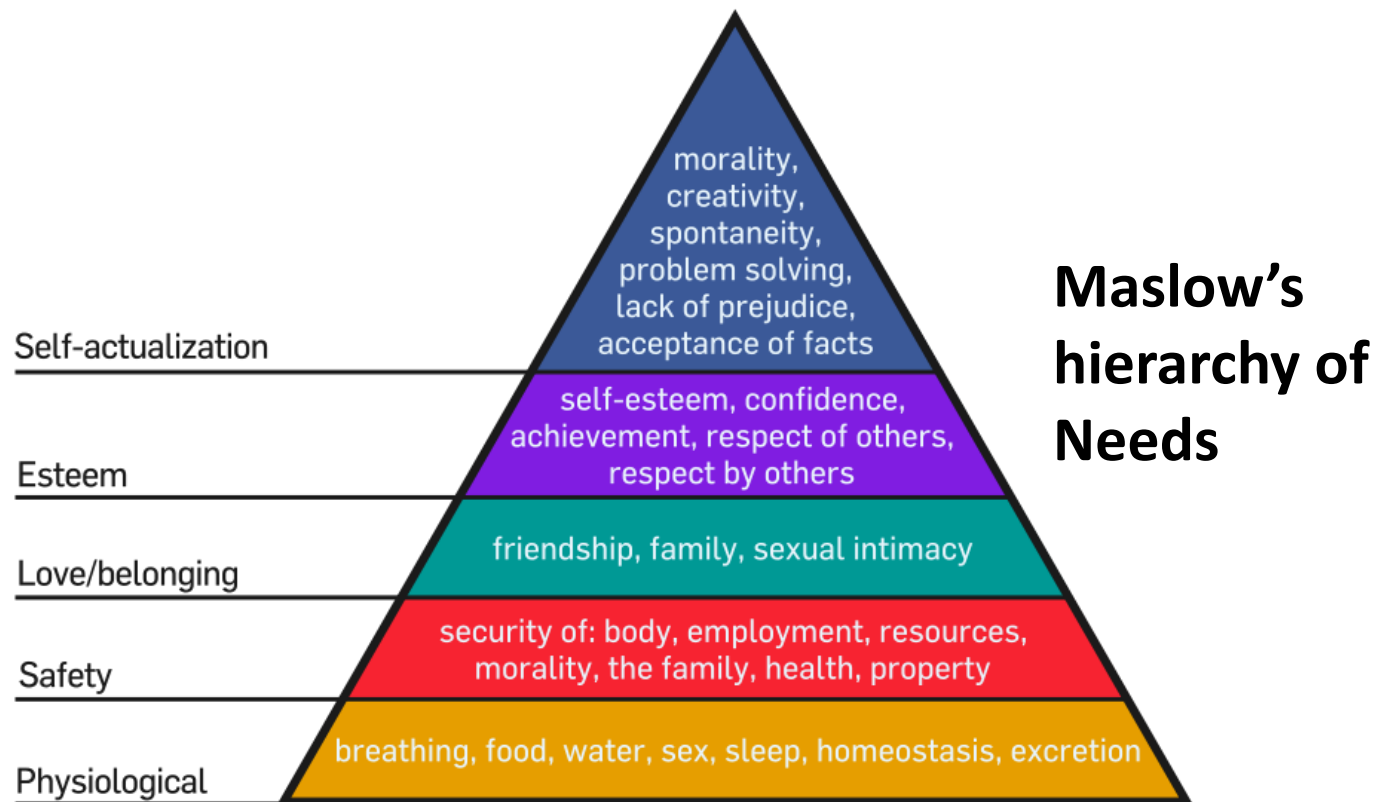
Graphics: Robert Shelton, Psychology Today, 2015

Empathy Vs Compassion

- While ***empathy*** is being able to relate (i.e. understand) other persons situation, ***compassion*** goes one level further (e.g. urge to do something about it)

- Being is empathic state is not sufficient for to achieve design- it is equally essential to be able to step back empathic state to continue in the design process.

Empathic Design

Being able to relate to stakeholders at emotional level enable addressing higher level needs

Maslow's hierarchy of Needs

Self-actualization — morality, creativity, spontaneity, problem solving, lack of prejudice, acceptance of facts

Esteem — self-esteem, confidence, achievement, respect of others, respect by others

Love/belonging — friendship, family, sexual intimacy

Safety — security of: body, employment, resources, morality, the family, health, property

Physiological — breathing, food, water, sex, sleep, homeostasis, excretion
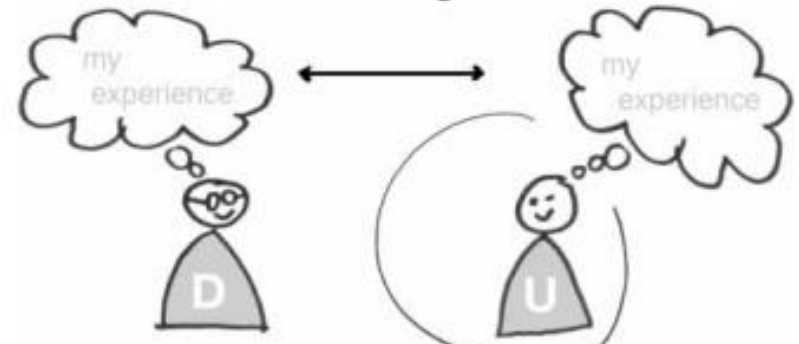
Empathic Design Framework

Discovery
Entering the user's world
Achieve willingness

Connection
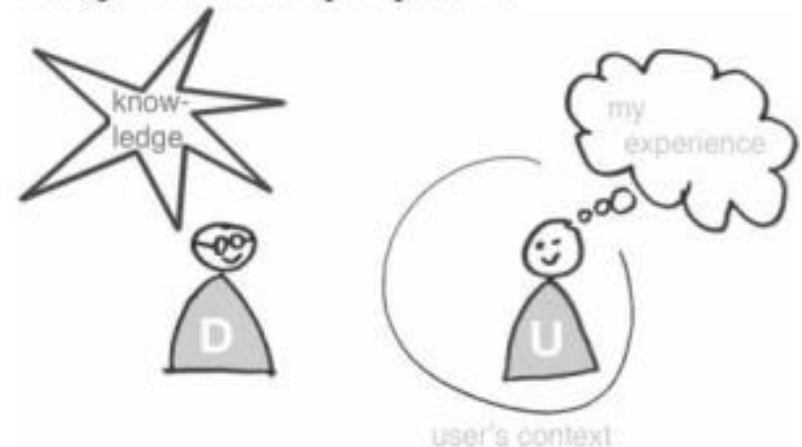Resonating with the user
Achieve emotional
resonance and find meaning

Immersion
Wandering around in the user's world
Taking user's point of reference

Detachment
Leaving the user's world
Design with user perspective

A framework for empathy in design: stepping into and out of the user's life,
Kouprie, M., & Visser, F. S. (2009) , J. of Engineering Design

Tools for empathic design

- Immersion and observation
  - Empathy is a natural phenomenon
- Listen
  - Listen with your ears
  - Listen with your eyes (body postures, what is person doing)
  - Listen with your heart – how is the other person feeling
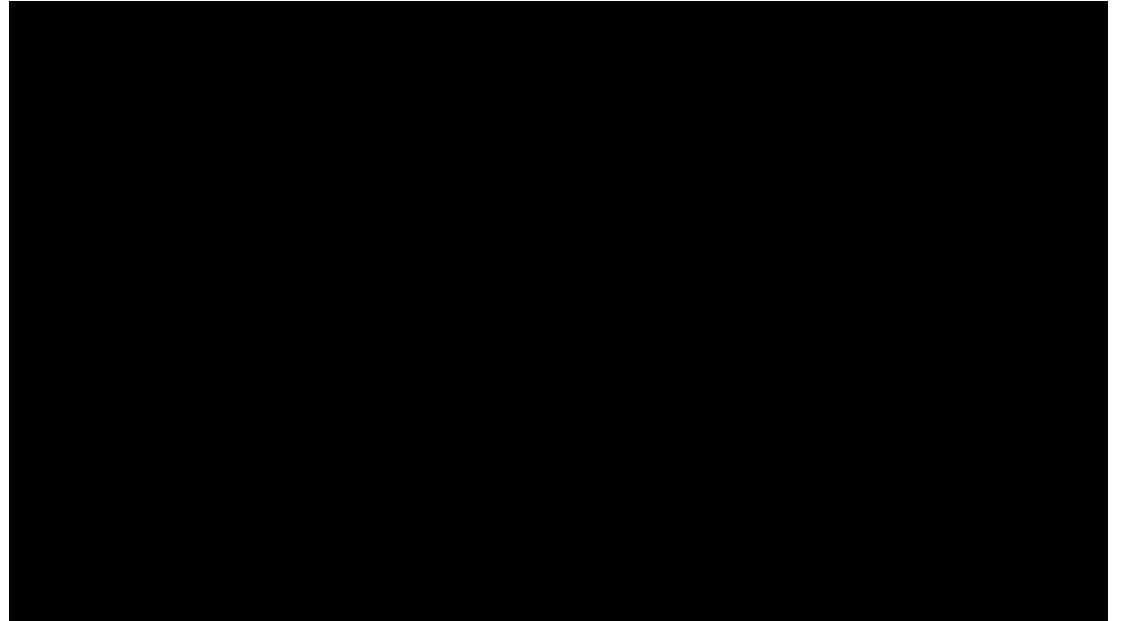- Role play/ Simulate

Simulate

Credit: https://www.mindtools.com/pages/article/EmpathyatWork.htm
https://www.youtube.com/watch?v=0I4paDlf3oc

Whom do we empathize with in healthcare system?

- Patient
- Family member
- Nursing Staff
- Doctor
- …

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Clinical Immersion

- What to observe during clinical Immersion?

- How to resolve conflict between need for privacy and being in other person's shoes?