

PD233: Design of Biomedical Devices and Systems

(Lecture 3 – Empathy)

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Course Website:

<http://cpdm.iisc.ac.in/utsaah/courses/>

Empathy

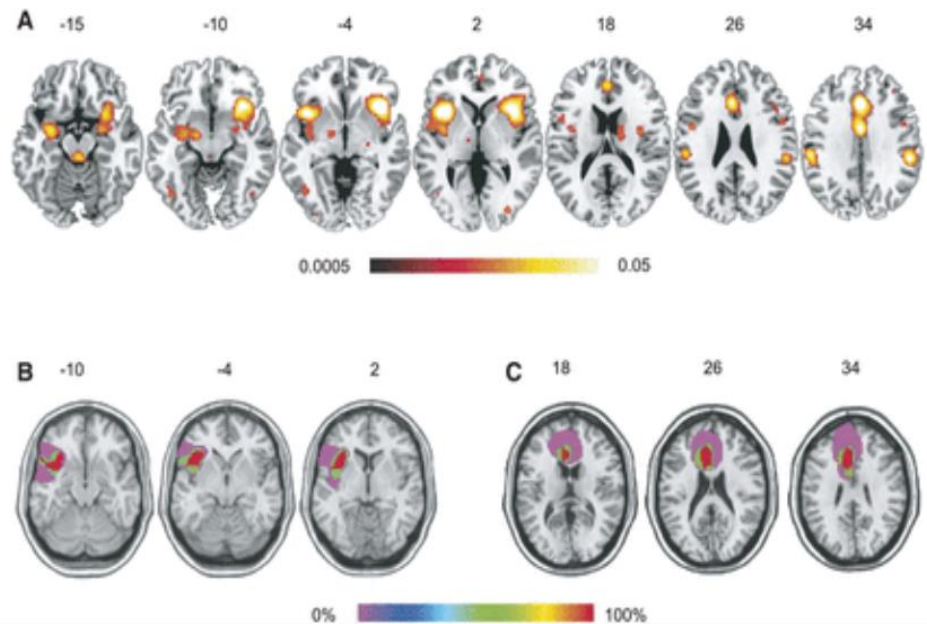


From evolutionary point of view empathy is perhaps essential for our survival as species

-not just survival of the fittest

Empathy

- Human beings have the ability to 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

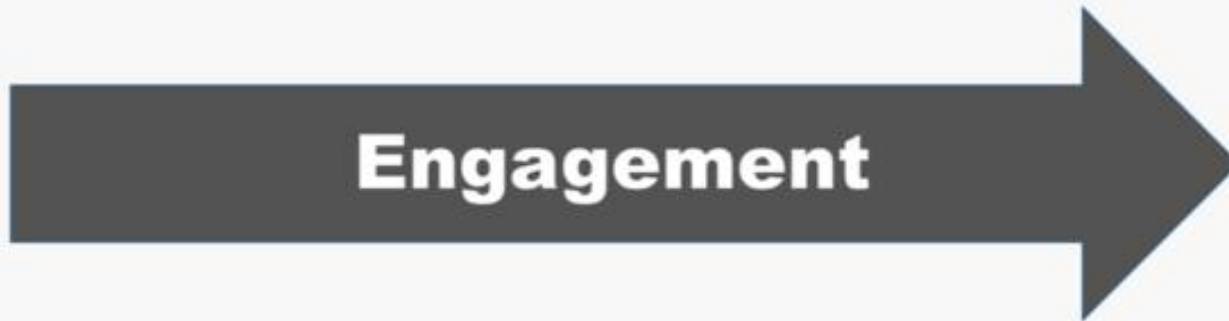


Pity:
I acknowledge
your suffering.

Sympathy:
I care about
your suffering.

Empathy:
I feel your
suffering.

Compassion:
I want to relieve
your suffering.

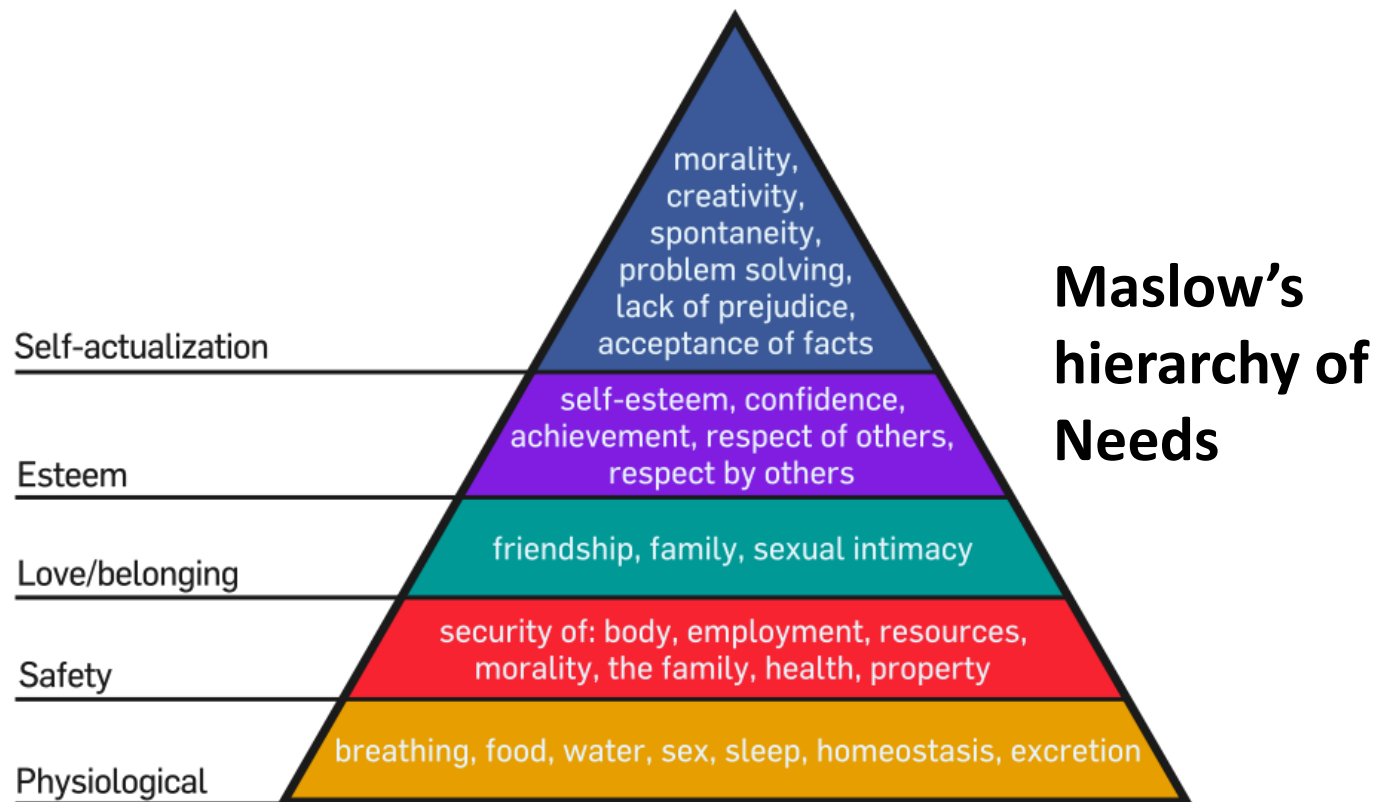


Empathy Vs Compassion

- 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 in 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



Empathic Design Framework

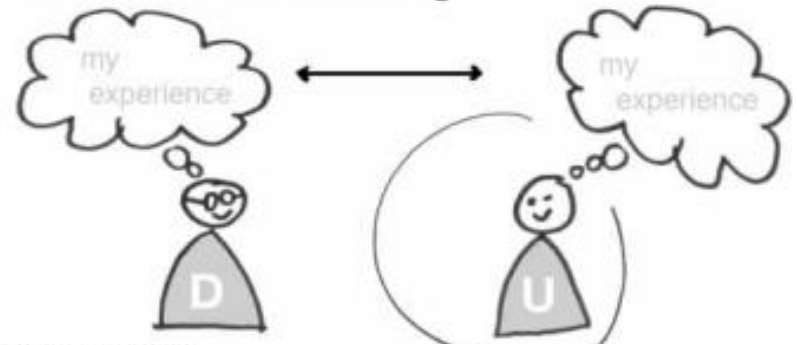
Discovery

Entering the user's world
Achieve willingness



Connection

Resonating with the user
Achieve emotional resonance and find meaning



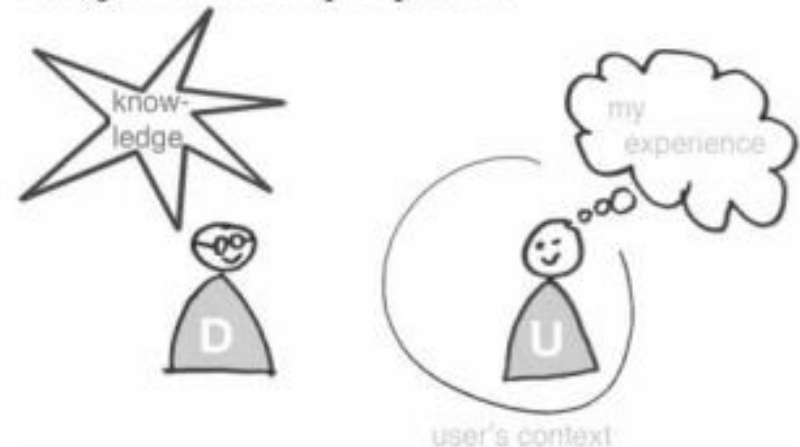
Immersion

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

Empathy Map Canvas

Designed for:

Designed by:

Date:

Version:

1 WHO are we empathizing with?

Who is the person we want to understand?
What is the situation they are in?
What is their role in the situation?

GOAL

2 What do they need to DO?

What do they need to do differently?
What job(s) do they want or need to get done?
What decision(s) do they need to make?
How will we know they were successful?

7 What do they THINK and FEEL?

PAINS

What are their fears, frustrations, and anxieties?

GAINS

What are their wants, needs, hopes and dreams?

3 What do they SEE?

What do they see in the marketplace?
What do they see in their immediate environment?
What do they see others saying and doing?
What are they watching and reading?

6 What do they HEAR?

What are they hearing others say?
What are they hearing from friends?
What are they hearing from colleagues?
What are they hearing second-hand?

4 What do they SAY?

What have we heard them say?
What can we imagine them saying?

What other thoughts and feelings might motivate their behavior?

5 What do they DO?

What do they do today?
What behavior have we observed?
What can we imagine them doing?

Tools for empathic design

- Immersion and observation
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 - 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
- Journey Mapping
- Persona Creation

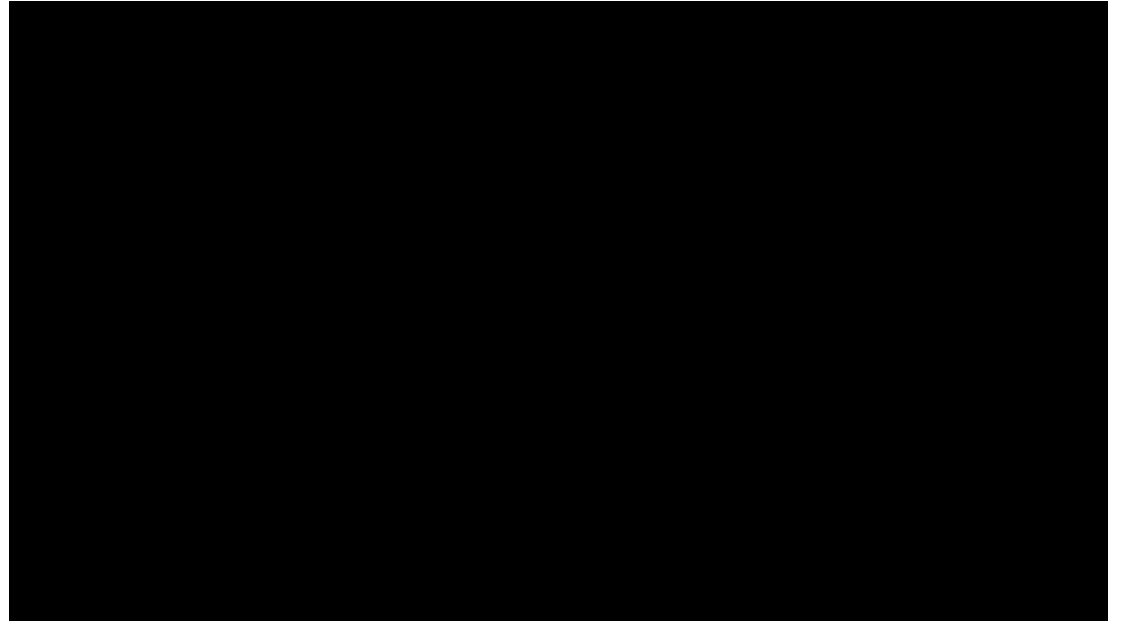
Simulate



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
- ...



Clinical Immersion

- What to observe during clinical Immersion?
- How to resolve conflict between need for privacy and being in other person's shoes?