

# Technology & Empowerment – A Capability Approach

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EDECT conference on the Empowerment of Disable People

# About My Work



Current project:

**The quality of life**

**& the moral foundations of health policy**



Previous project:

**The capability approach, technology & design**

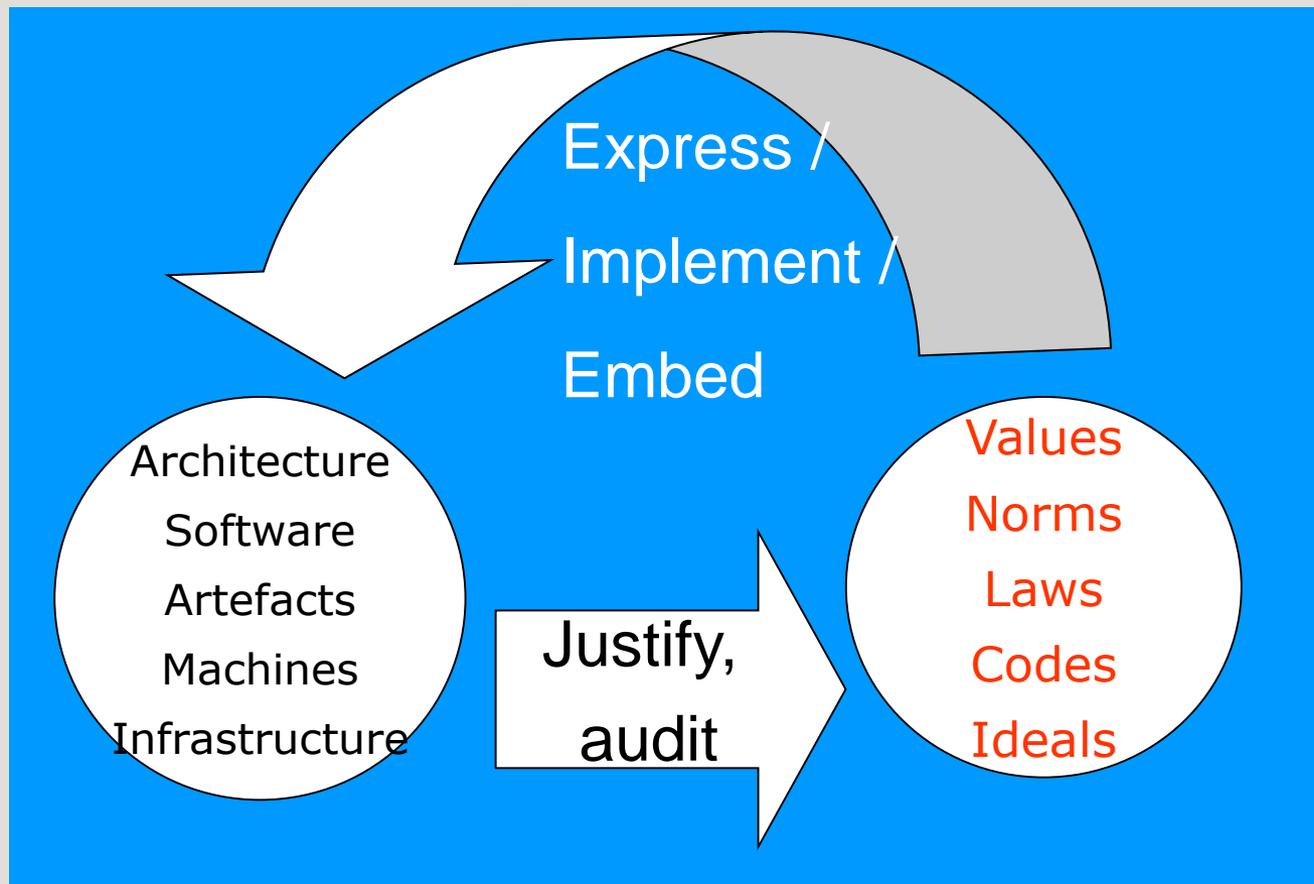
**- a philosophical exploration**



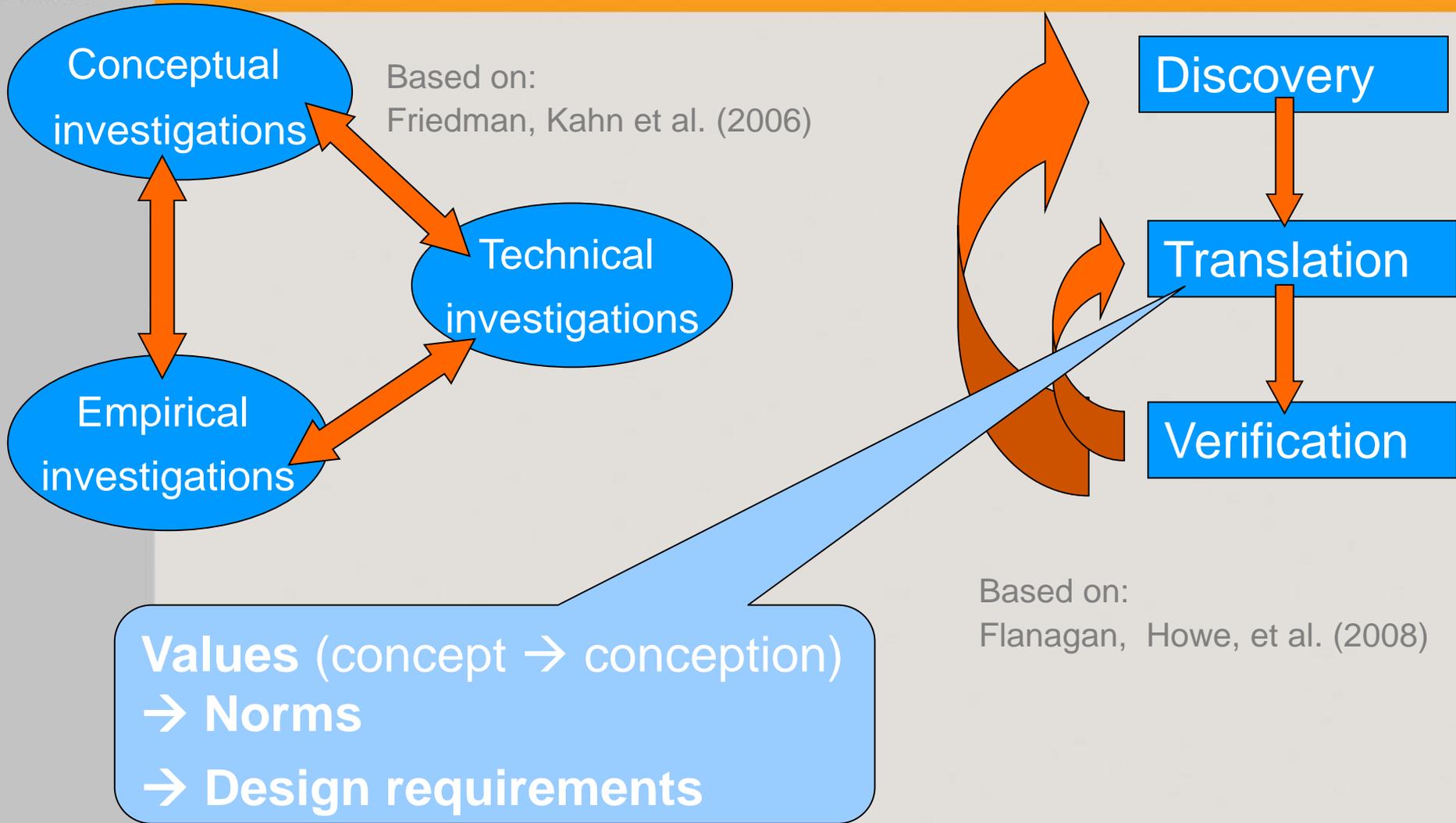
A normative framework to address issues of  
dignity / empowerment / quality of life

# Value Sensitive Design (I)

(sheet borrowed from Jeroen van den Hoven)



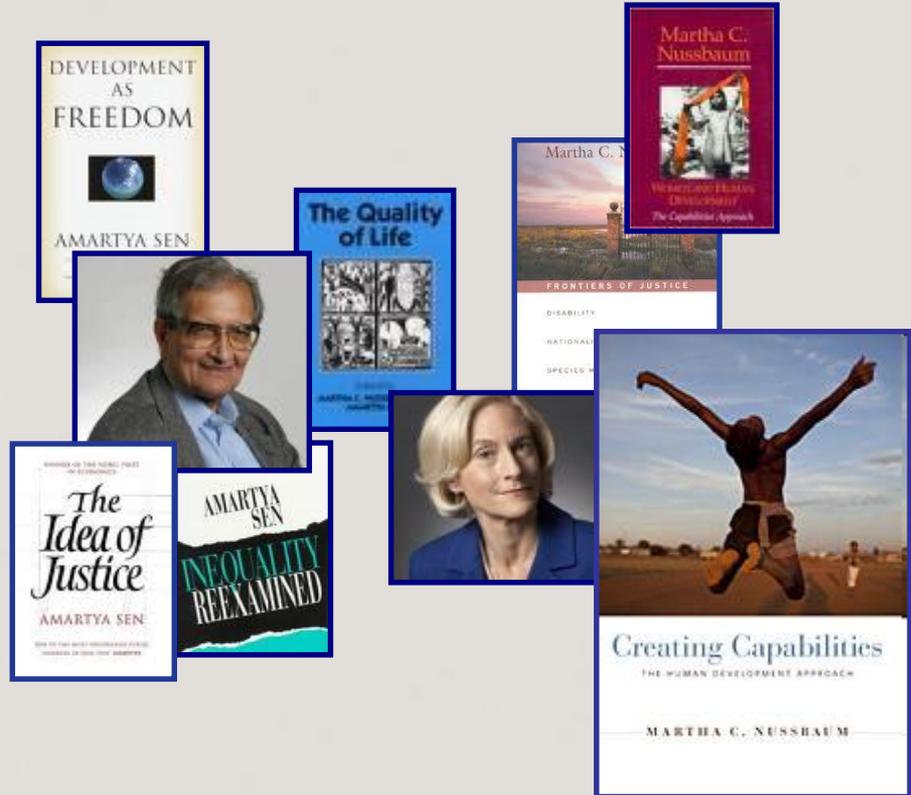
# Value Sensitive Design (II)



# That Brings Us to the Capability Approach...

What exactly is our  
conception of

- Well-being?
- Empowerment?
- Human dignity?



# How to Assess Well-being?

**Problem: 'conversion factors'**  
unfavourable for

- disabled (personal -),
- Bedoeins in the desert (environmental -)
- women in Iran (social)



Goods

(like a bicycle)



**'Capability'**

(to move around, to travel)



**Problems e.g. 'adaptive preferences';**

preferences may become distorted due to extreme oppression or deprivation

Happiness / satisfaction

(by cycling)

# Human Diversity, Conversion Factors & Design

Goods & services  
(characteristics)

Personal / social / environmental  
**conversion factors**



Human capabilities  
(of a person)



Engineers: can sometimes take relevant conversion factors pro-actively into account.

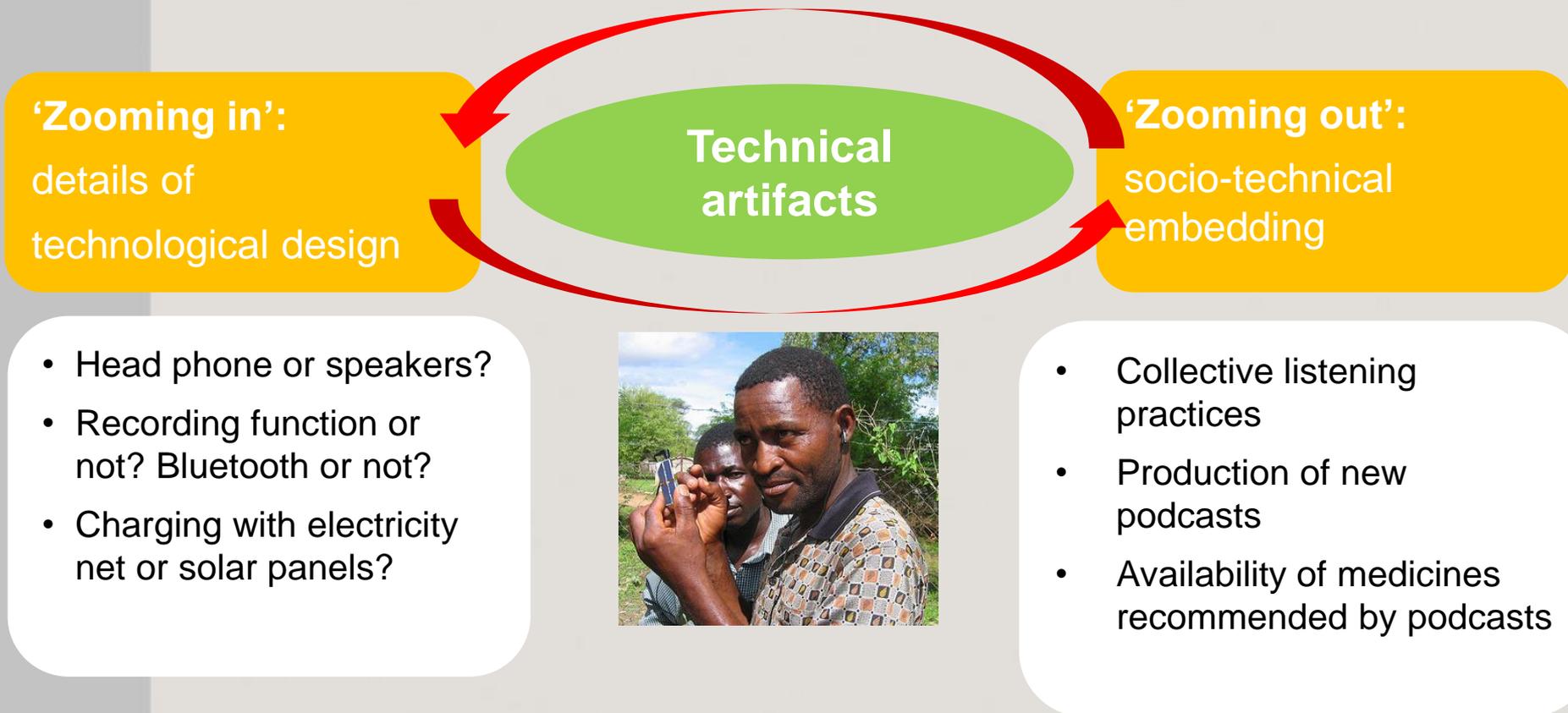
Interesting from a CA perspective:

- **Appropriate technology movement** → local circumstances of usage
- **Universal/inclusive design movement** → users with different capacities due to disabilities



# Understanding the Technology – Human Capability Relationship

... requires an iterative movement between (Oosterlaken, 2013):



# What are the Components of Human Capabilities?

Distinguish (Nussbaum, 2000):

- Innate capacities
- Internal capacities
- +
- Suitable external circumstances for their exercise

=

**Combined capabilities**

**Capability inputs** (Robeyns, 2005):

- Financial resources
- Economic production
- Political practices & institutions
- Cultural practices
- Social norms
- Social structures & institutions
- Public goods
- Traditions & habits

**Technology!**

# Well-being + Agency Important

“Agency refers to a person’s ability to pursue and realize goals that he or she values and has reason to value. An agent is ‘someone who acts and brings about change.’ The opposite of a person with agency is someone who is forced, oppressed, or passive.”

(Source: HDCA briefing note “Capability and Functionings: Definition & Justification”)

“The ‘good life’ is partly a life of genuine choice, and not one in which the person is forced into a particular life – however rich it might be in other respects”



“We see the person as having activity, goals, and projects”, “a dignified free being who shapes his or her own life”



# Where Does Agency Come In?

Individual  
makes  
choices



## Capabilities:

- *real* opportunities that people have to “live the lives that they have reason to value”
- “what people are *effectively* able to do and be”
- (positive) freedoms that people have “to enjoy **‘valuable beings and doings’**”

## Functionings:

Examples: working, resting, being literate, being healthy, being part of a community, travelling, being confident, playing the guitar, riding a bicycle...

Empowerment

# Nussbaum's List of 10 Central Human Capabilities

1. Life
2. Bodily Health
3. Bodily integrity
4. Senses, imagination, thought
5. Emotions
6. Practical reason
7. Affiliation
8. Other species
9. Play
10. Control over one's environment

“Being able to live with and toward others, to recognize and show concern for other humans, **to engage in various forms of social interaction**; to be able to imagine the situation of another.

Having the social bases of self-respect and non-humiliation; being able to be treated as a dignified being whose worth is equal to that of others”

Human  
dignity

# Nussbaum's Two Main Arguments

## Why her List is not Paternalistic

### **Capability-functioning distinction**

People should not be forced into certain functionings, policies should in principle merely be aimed at promoting capabilities.

### **'Multiple realizability'**

Possible to give e.g. capability of 'play' or 'affiliation' a different concrete interpretation in different cultures / societies

# ‘Multiple Realizability’ of Capabilities

- Also within societies important: ‘functional diversity’ between people (e.g. due to disabilities) requires paying attention to different ways to realize the same capability (Toboso, 2010)
- Technology not just a means, but also influences how we understand and interpret capabilities. E.g. Facebook  $\leftrightarrow$  our capability for ‘affiliation’ (Coekelbergh, 2010)

# Disability, the CA & Technology/Design

- Some literature on **the CA & disability**. E.g. positioning the CA versus the medical and social model of disability
- Fast growing body of literature on **the CA & technology/design**, including some articles on
  - the CA and (the design of) robots for elderly care (Coeckelbergh 2010 & 2012; Borenstein & Pearson 2010)
  - the CA and universal design (Toboso 2011; Oosterlaken 2012)
- Yet so far mainly agenda-setting instead of detailed, concrete application to / ethical evaluation of technology and its design

# Thank You!

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