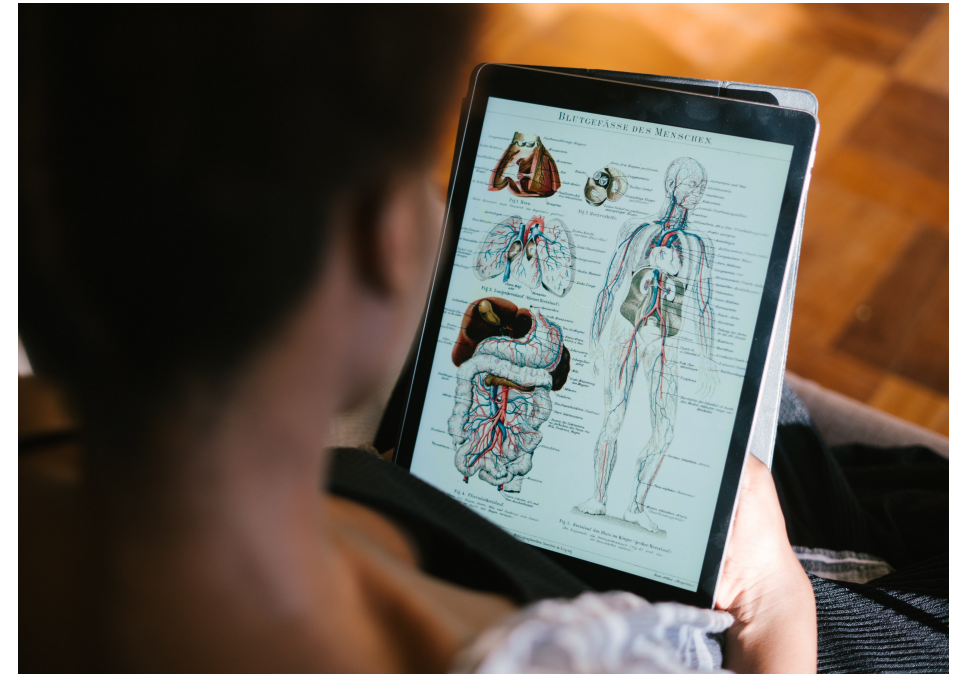# Human Computer Interaction

Chapter 3: Humans

Prof. Dr. Björn Eskofier
Machine Learning and Data Analytics (MaD) Lab
Friedrich-Alexander-Universität Erlangen-Nürnberg (FAU)
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Overview

Design for human

What has to be considered?

Humans are very **complex**!
Even psychology only explains parts

Physiology (e.g., size, strength, degrees of freedom, fatigue)

Psychology (e.g., Memory, perception, cognition)

Emotions (e.g., Gender, abilities, and disabilities)

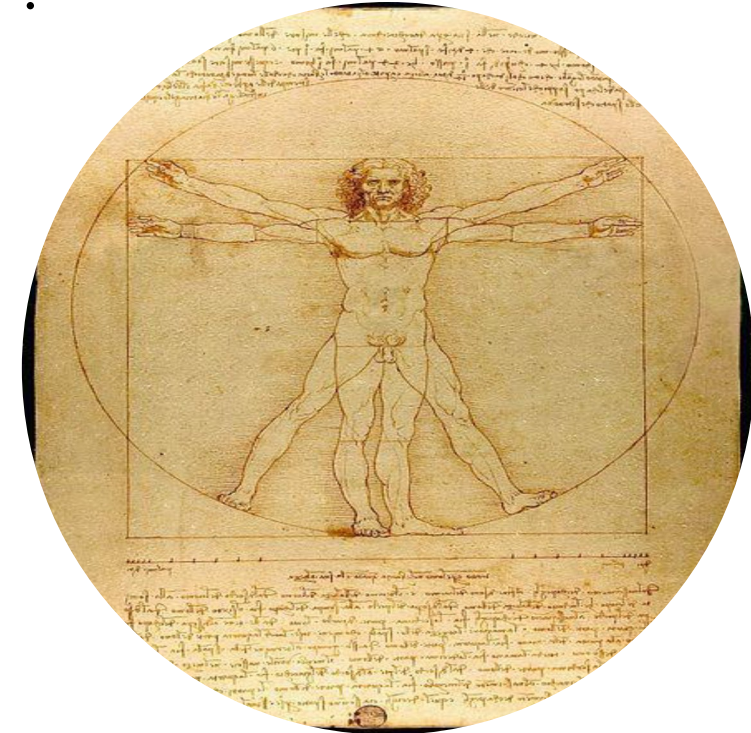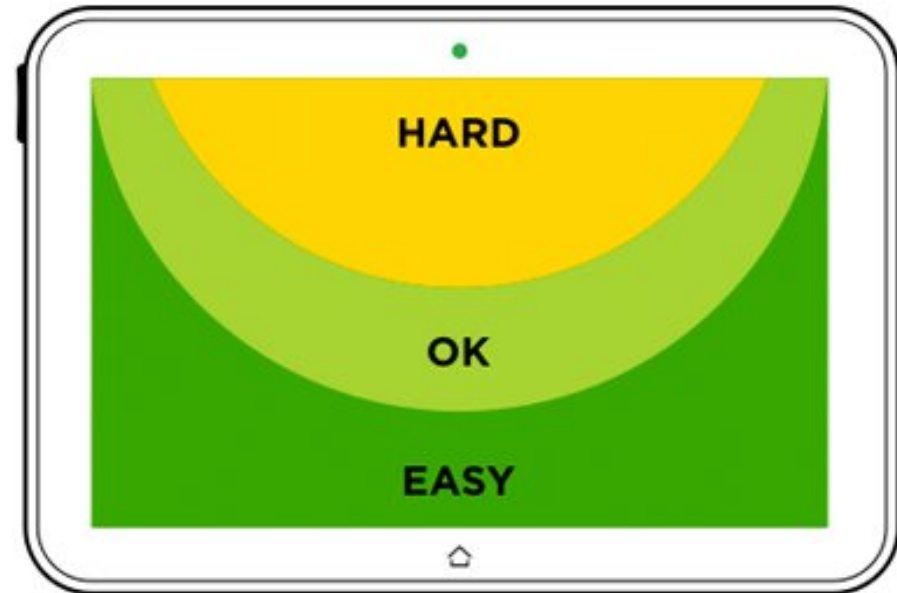**Soft factors** (e.g., Aesthetics, motivation, pleasure, experience)

Photo by Luc Viatour drawing by Leonardo da Vinci
https://en.wikipedia.org/wiki/File:Da_Vinci_Vitruve_Luc_Viatour.jpg

What has to be considered?

EASY & ACCURATE

OKAY

https://buildfire.com/mobile-web-design/

HARD

OK

EASY

https://www.lukew.com/ff/entry.asp?1649
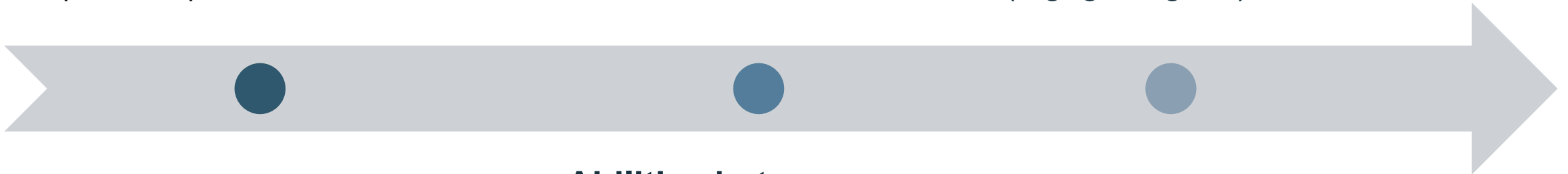
Human Abilities

**Abilities of un-augmented
users in general do not change
a lot over time, e.g.**

- Ability to cope with cognitive load
- Willingness to cope with stress
- Time one can concentrate on a
  particular problem

**Abilities of one individual
user changes over time**

(e.g. getting old)

**Abilities between
individual users vary a lot**

- Long term, e.g. gender,
  physical and intellectual abilities
- Short term, e.g. effect of stress
  or fatigue

The goal is to create systems and technologies that **fit humans**,

with regard to:

Physiology

Psychology & cognitive abilities

Emotions

Friedrich-Alexander-Universität
Technische Fakultät

Machine Learning Data Analytics

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Thank you for your attention