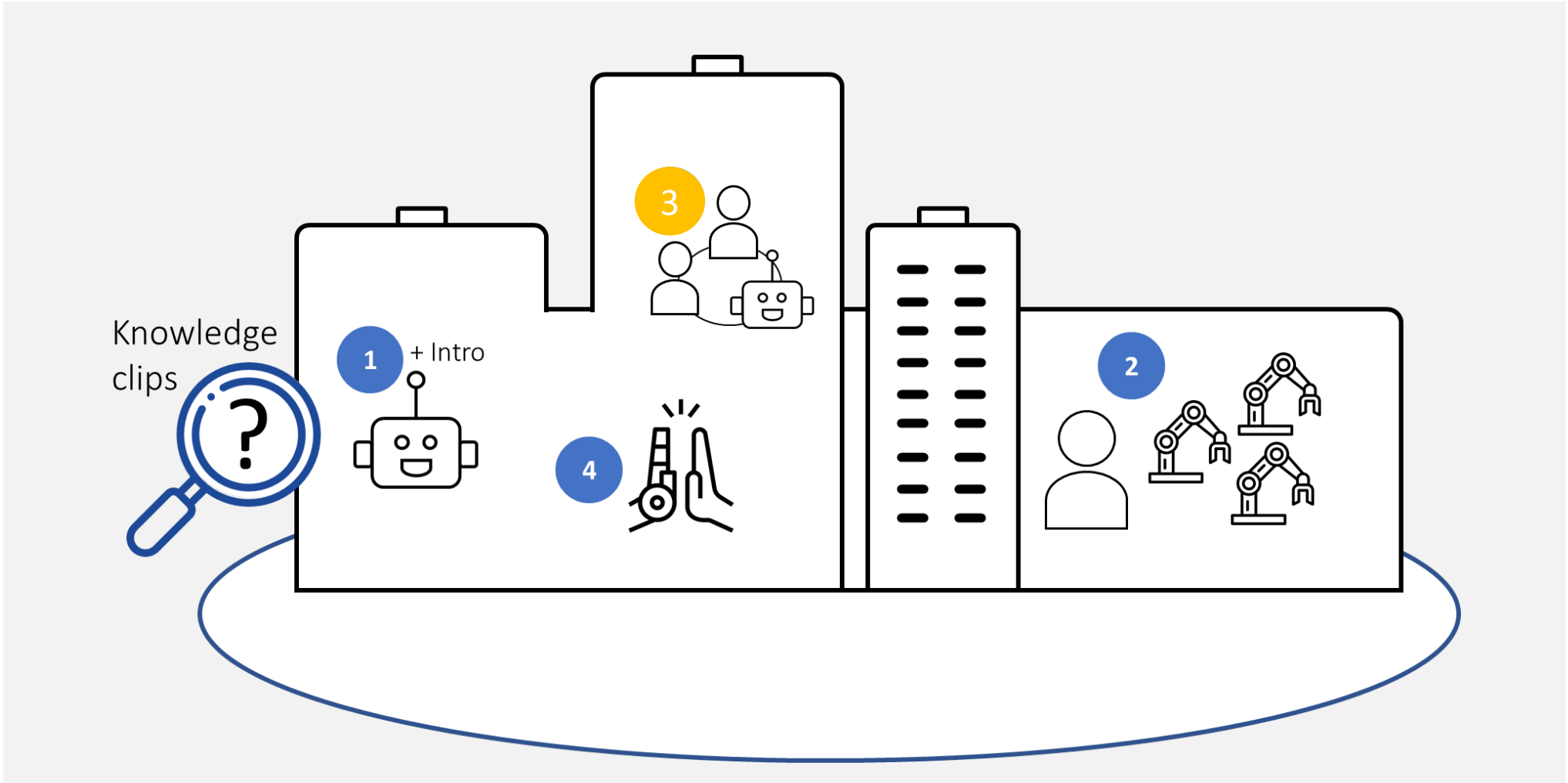
1JM50 - Implementing and Adapting to AI in Organizations

Lecture

Human Performance Management Group

Human Performance Management Group, Department of IE&IS


Knowledge clips
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Trust is THE topic of 2025

KPMG

Insights Industries Services Topics Careers About us

Global study reveals trust of AI remains a critical challenge reflecting tension between benefits and risks

Chinese respondents provided some of the highest scores in the study on trust, acceptance, excitement, and optimism around AI.

pwc

Industries Services Issues About us Careers

PwC Global > Today's issues > Workforce > Global Workforce Hopes and Fears Survey 2025

PwC's Global Workforce Hopes and Fears Survey 2025

Rewiring the future of work

Survey | 24 minute read | November 12, 2025

Share

With trust, cultural support, and clarity about workplace changes in an age of AI, leaders can boost employee motivat… while igniting reinvention and growth.

BBC

Don't blindly trust what AI tells you, Google boss tells BBC

People should not "blindly trust" everything AI tools tell them, the boss of Google's parent company Alphabet has told the BBC.

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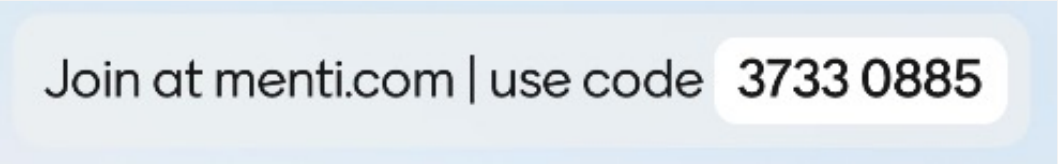
What does trust mean to you?



The Guardian

TikTok to replace trust and safety team in Germany with AI and outsourced labor

TikTok workers in Berlin are striking over mass layoffs amid company's global push to replace moderators with AI.

10.08.2025

What is worse? Too much or too little trust?

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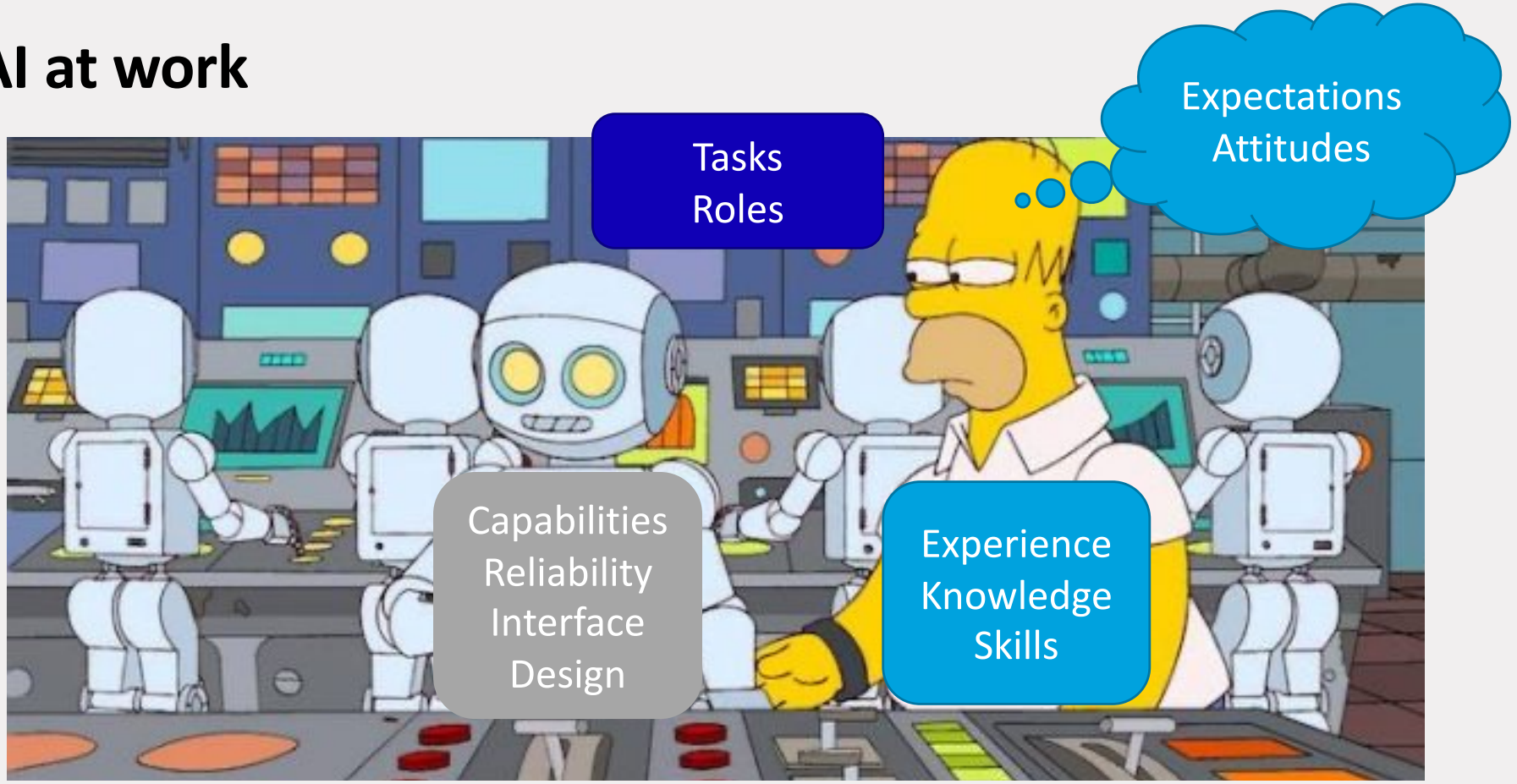
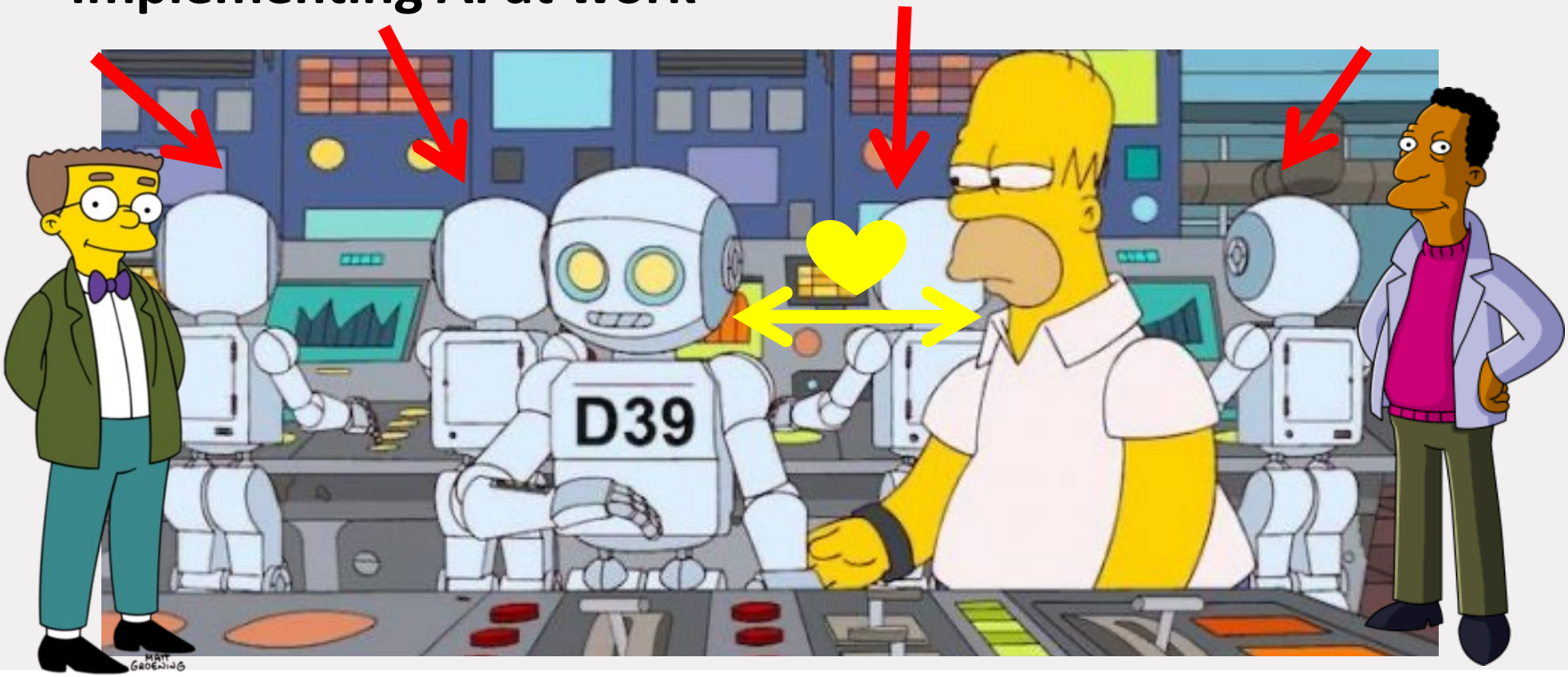
AI at work


Tasks
Roles
Expectations
Attitudes
Capabilities
Reliability
Interface
Design
Experience
Knowledge
Skills

Implementing AI at work



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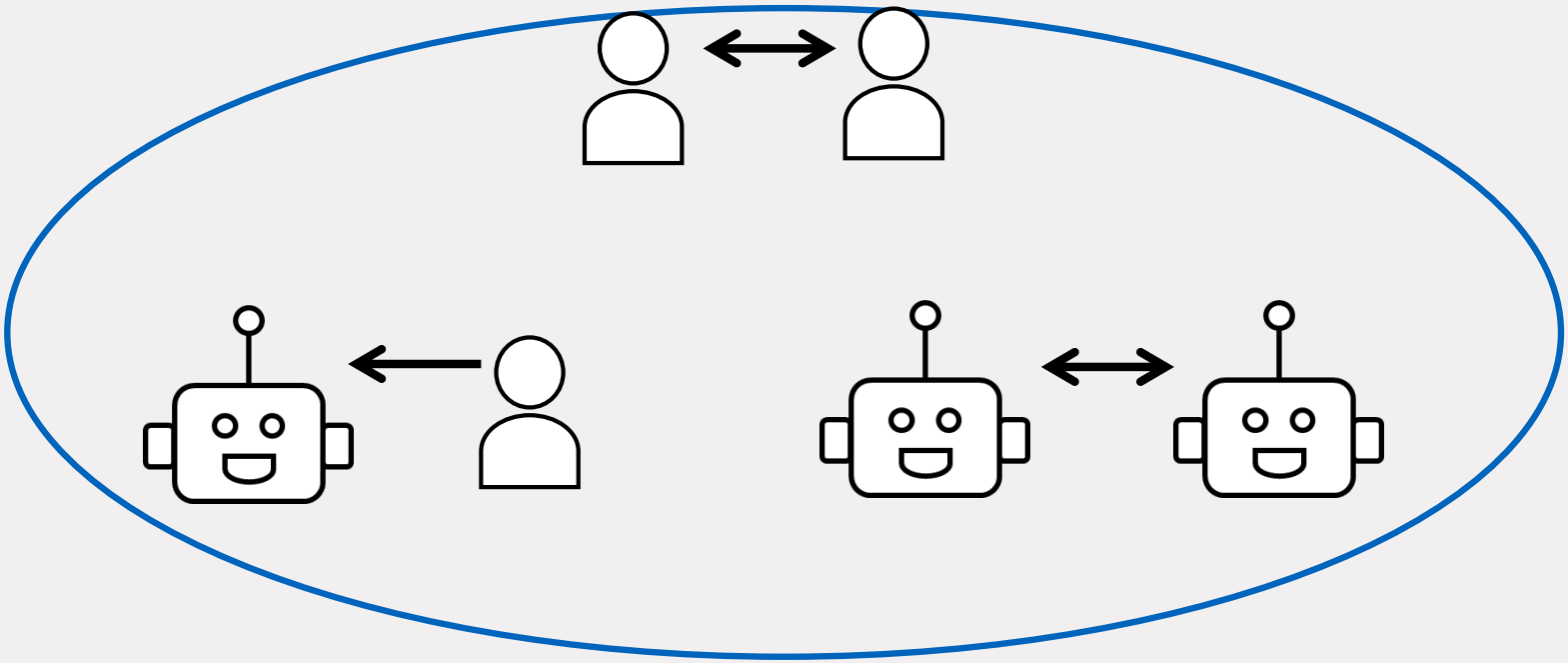
Single user – single system perspectives are unrealistic in the workplace



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Invisible AI?

Human-AI Collaboration

Trust in AI leads to more information exchange, higher likelihood of using these technologies, better outcomes

(Freedy et al., 2007; Glikson & Woolley, 2020; Lee & See, 2004)

Human Teamwork and Collaboration

Interpersonal trust and team trust lead to shared understanding, knowledge sharing, high team performance

(Mathieu et al., 2008; McEvily et al., 2003; Feitosa et al.,2020)

> But is this the same?

Trust ≠ Trust

"the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party"

p. 712, Mayer et al (1995)

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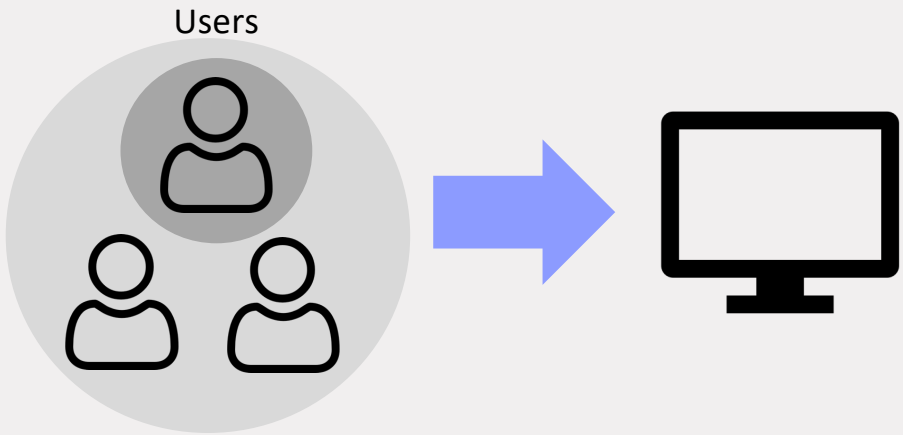
Collaborating with AI – theoretical perspectives

How we understand trust, depends on our perspective

- Technology as a tool
- Technology as a medium
- Technology as a counterpart

Perspective 1: Technology as a tool

- Highlights that the interaction with technology is shaped by the users' expertise, trust, etc.
- Focus on interaction once the technology is used in the organization



Trust in AI as a tool

Defined mainly by characteristics of the user and the system

For antecedents of trust see also mandatory readings: Kaplan et al., 2021

Perspective 2: Technology as a medium

- AI as a tool for facilitating interaction between people (e.g., facilitating knowledge sharing)
- Enables exchange across “boundaries”, e.g., across groups with different expertise, interest, or power
- Stronger focus on the outcome of the collaboration

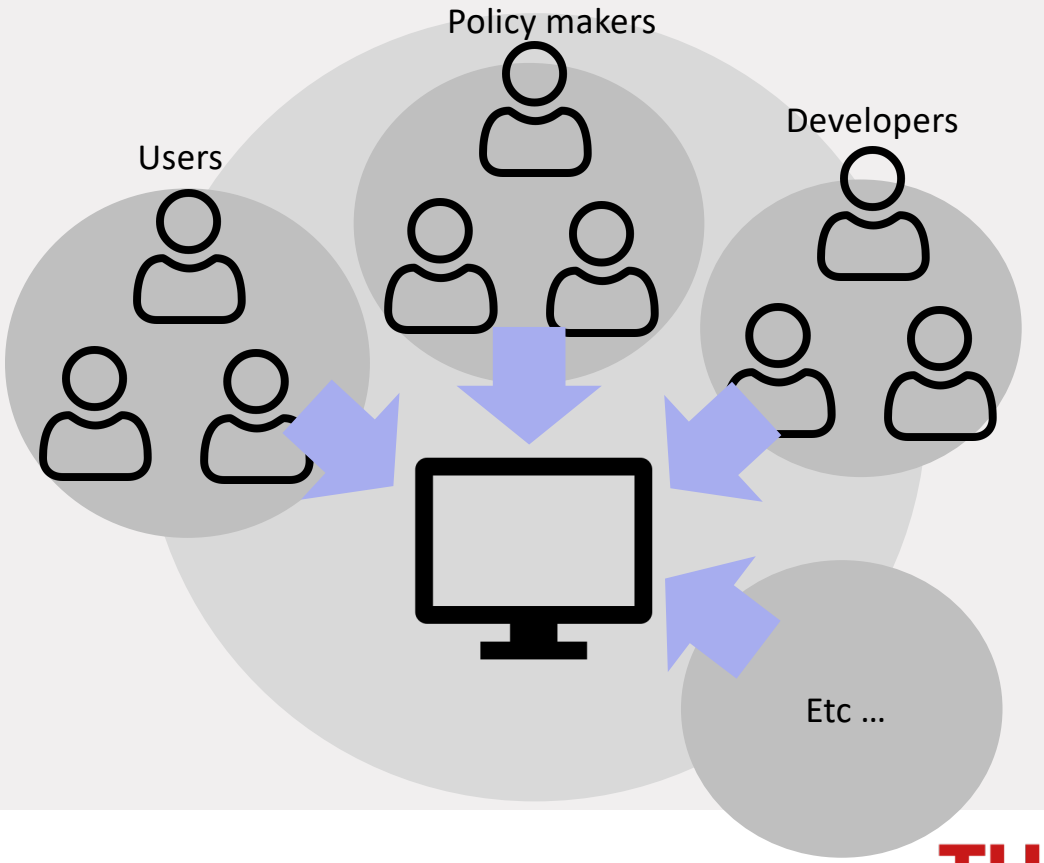
<u>Challenges of perspective 1 and 2</u>:

Scope and temporal perspectives: Ignores context of work and dynamics that come from AI’s constant change as well as change in users

Trust antecedents:
- User
- System
- Human collaborator

Perspective 3: Technology as a counterpart

- AI as an actor within a system
- intertemporal focus, combining past, present, future (development, implementation and evolution of collaboration)



<u>Challenges of perspectives</u>:

Perspectives focus on perception of and behaviors towards system but less on specific system beliefs, intentions, behaviors

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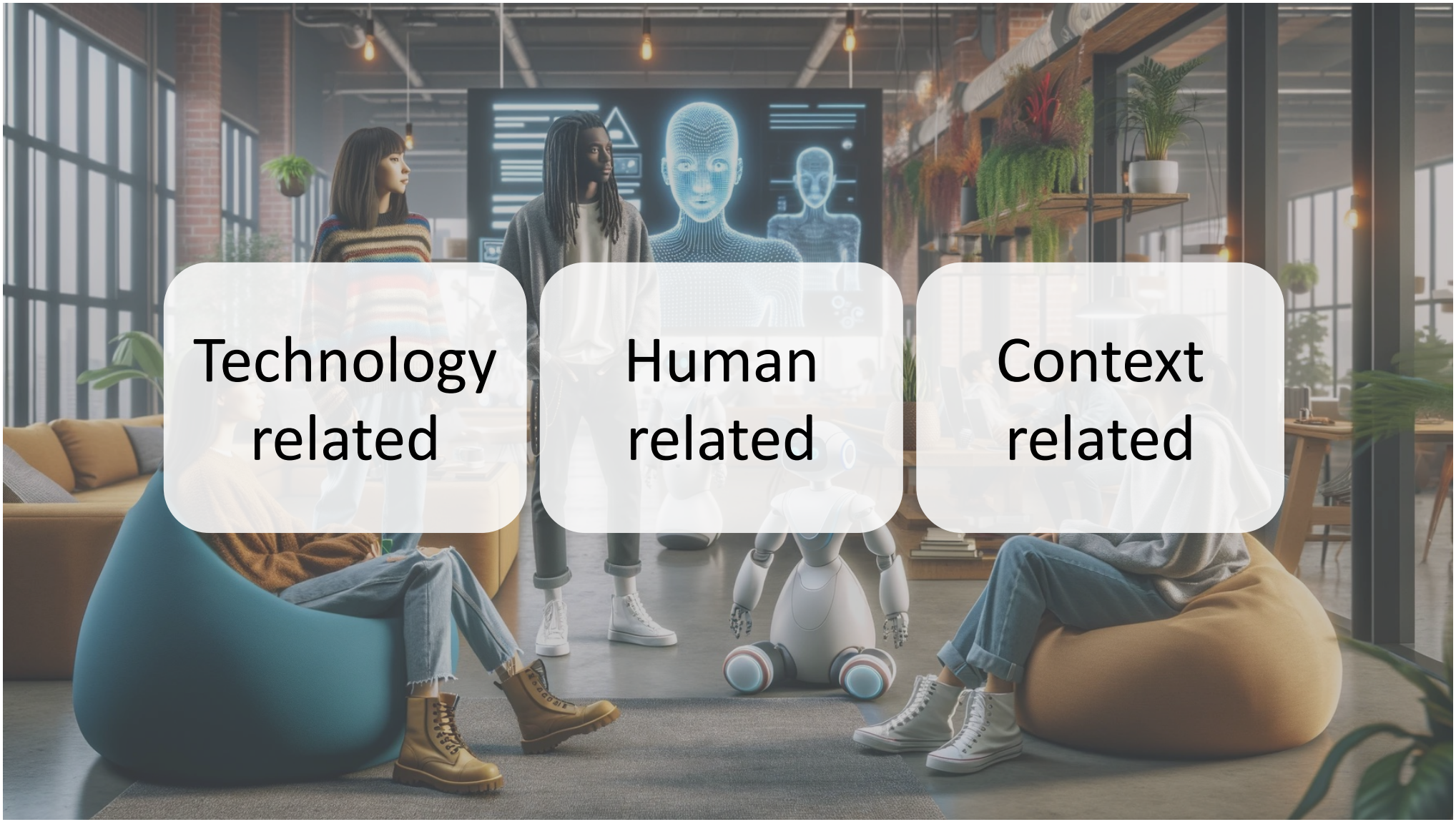
Technology related
Human related
Context related

Trust (belief)

- A psychological state involving willingness to be vulnerable (Mayer, Davis, & Schoorman, 1995)
- Subjective, context-dependent, shaped by experience, emotion, heuristics
- Familiarity, transparency, social cues, or organizational climate can foster trust

Trustworthiness (properties)

- Objective qualities that make a person or system worthy of trust. For example, its competence, reliability, predictability, or alignment with values (Lee & See, 2004).
- A characteristic of the “trustee” (e.g., the AI system) and the processes around it
- In AI, transparency, robustness, accountability, safety, fairness, oversight can contribute to perceived trustworthiness

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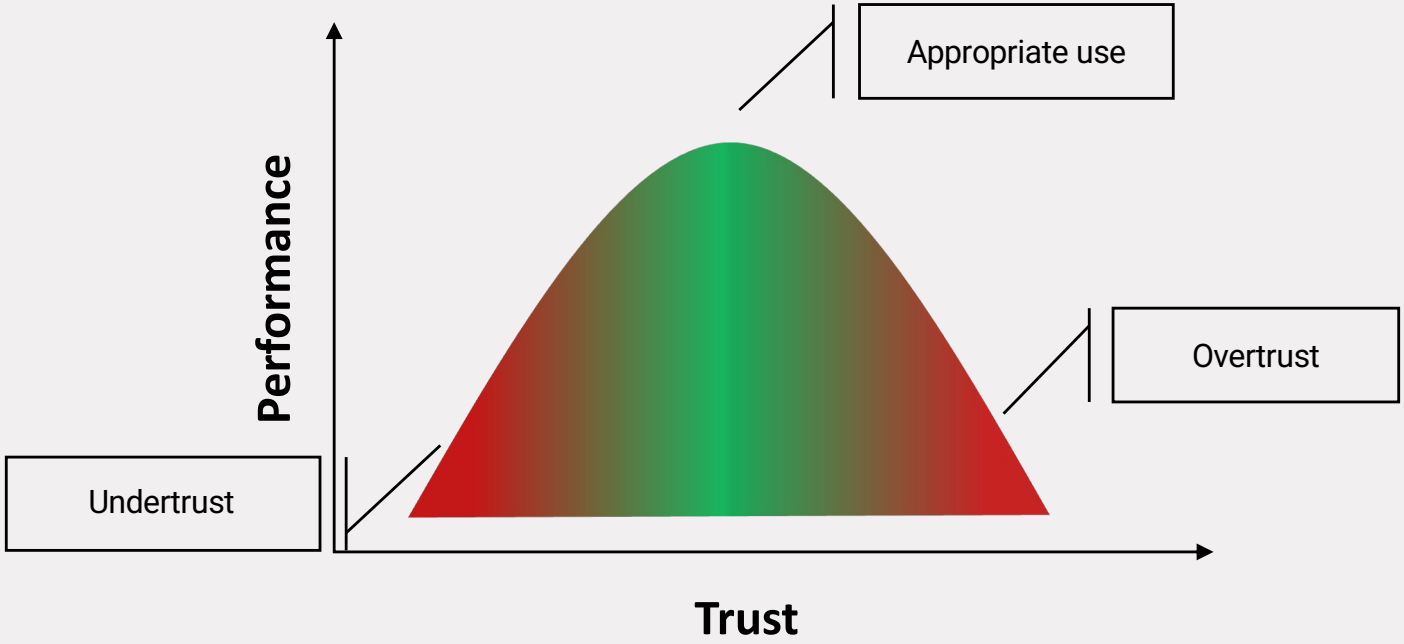
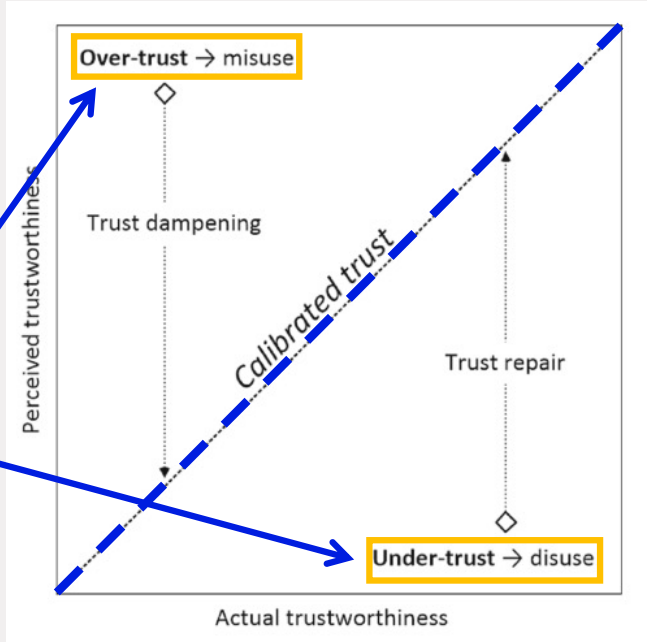

Appropriate use
Overtrust
Undertrust
Performance
Trust

Improving trust

Supporting employees:

- Improving understanding and providing training



DeVisser et al., 2020

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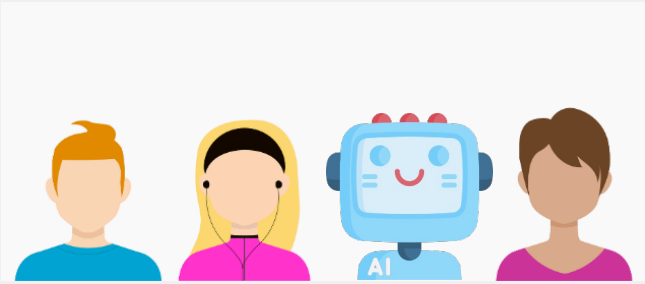
Should AI trust too?

Facilitating collaboration

For seamless collaboration, AI needs to…

- Perceive and evaluate each others' (human and AI) behavior and reactions
- Have an understanding/knowledge of human behavior, the task, the team, its environment, its goals, etc.
- Have the ability to interact and communicate, based on its understanding



Van den Bosch 2019

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Artificial trust

Artificial trust refers to the model-driven estimation of human reliability, competence, intent, or behavioral predictability, enabling AI system adaptation

- **Human reliability estimation:** AI predicts the likelihood of human success or error (Nikolaidis & Shah, 2012; Chen & Barnes, 2014)
- **Adjustable autonomy:** Systems dynamically shift control between human and AI based on predicted trustworthiness (Scerri et al., 2002; Javdani et al., 2018)
- **Intent prediction:** AI infers human goals and actions for smoother coordination (Dragan & Srinivasa, 2013; Lasota et al., 2017)
- **Bidirectional trust models:** Robots form internal estimates of how much to rely on human input, enabling mutual adaptation (Hancock et al., 2011; Nikolaidis et al., 2017)

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Human-AI trust: finding interdisciplinary language

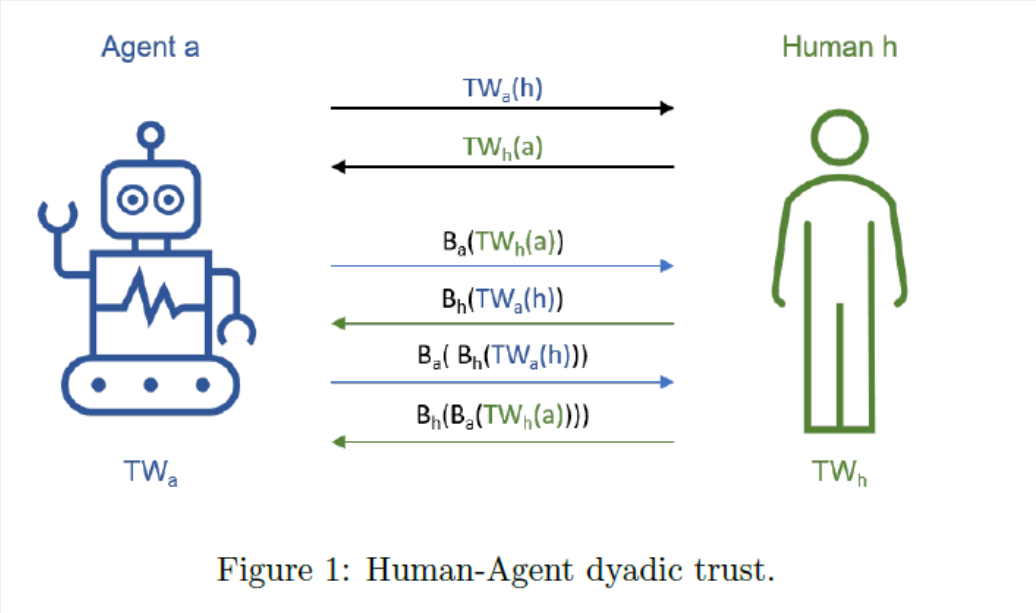

Figure 1: Human-Agent dyadic trust.

Jorge et al. 2021; Ulfert et al., 2023

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Organizational Trust

Integrative Model of Organizational Trust (Mayer et al., 1995)

- Employees trust leaders/organization based on their ability, benevolence, and integrity leading to willingness to take risks

Trust in Leadership (Dirks & Ferrin, 2002)

- Trust in leaders is linked to higher job performance, citizenship behavior, commitment, satisfaction, and lower conflict and resistance to change

Recent studies on AI implementation

- Top management support increases trust in AI, which mediates AI adoption (Korzyński et al., 2024)
- Organizational readiness, fairness, and communication shape trust in AI and reduce implementation barriers (Daly et al., 2025)

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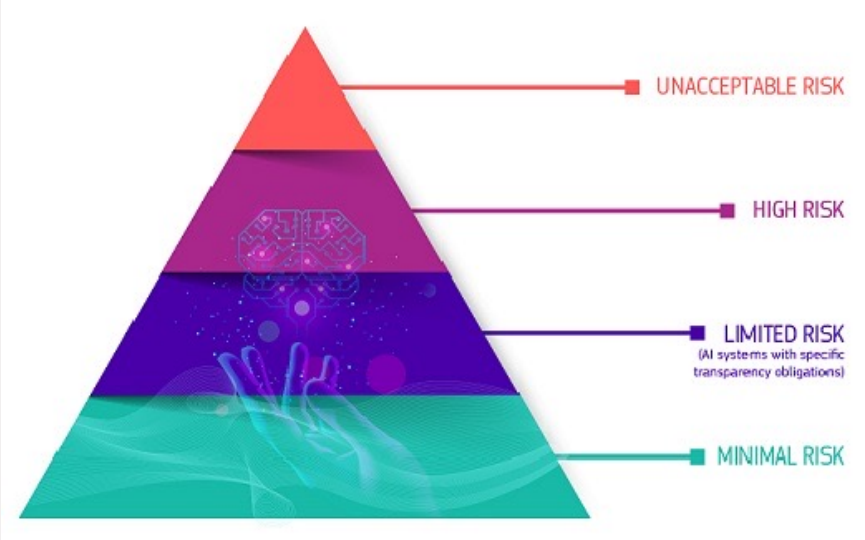
Human Oversight & EU AI Act

Allow humans to understand, intervene, and override AI when needed.

- **Competence**: users must have the skills/training to judge the AI's outputs.
- **Authority**: humans must have real power to change or stop the system.
- **Timing**: oversight must occur early enough to prevent harm, not after errors occur.



EU AI Act: Risk-Based Approach

Higher risk has stronger oversight, documentation and transparency obligations

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AI is not neutral, positive, or negative

*"Technologies **are created by people, human engineers or designers, who have assumptions about users**, including their mental models and needs, which are reflected in design decisions (Norman 1988, Suchman 2007)." in Anthony et al. 2023*

→ We can design what human-AI work collaboration should look like in the future

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Mini design challenge

Imagine you must design an AI system that recommends whether a person is hired for a position in a hospital.

- Lens A: The User
- Lens B: The Team
- Lens C: The Organization
- Lens D: Society/Regulators

From **your lens**, design ***ONE*** *concrete feature* (e.g., a feature, process, interaction, or rule) that would make this AI system trustworthy.

- *What would this group need to feel confident using the system?*
- *What information or safeguards matter most?*
- *What reduces trust from that perspective?*
- *How can we prevent over-trust or under-trust?*

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Break – 10 Minutes

Assignment

- How does an organization adapt to the implementation of AI?
- What challenges are they facing?
- How can the implementation be improved?

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Introduction (12 points)

- Describe the (type of) case organization.
- Describe and explain the organizational need for change that is/was fulfilled with AI implementation, i.e., why is/was the change of AI system implementation needed from the organizational perspective
- Describe what type of AI system is going to be/is being implemented and how this may be/is currently affecting work design and collaboration processes

Analysis (28 points)

- **AI implementation:** Describe how the AI system may be affecting work design/processes
- **Gap-analysis:** describe the current organizational situation (‘as is’) and the desired organizational situation (‘to be’). Describe the gap between present state and desired state in detail for each relevant aspect.

Analysis - continued

- **Force field analysis:** Describe the (strength of) driving forces for change and the (strength of) restraining forces opposing change and represent these in a force field analysis diagram.
- **Stakeholder analysis:**
  - Describe who (individual employees and/or groups of employees) in the organization will be affected by the implementation of an AI system/current use of an AI system and how they will be affected. What is their attitude towards AI implementation and use? Do they hold positive/neutral/negative views? Do they think it (will) yield positive/neutral/negative outcomes for themselves and the wider organization?
  - Describe who (individual employees and/or groups of employees) will have the power to support or oppose AI implementation and why/how.
  - Draw a Stakeholder grid based on the results of the above Stakeholder analysis

Recommendations (28 points)

- Describe what type(s) of change approach(es) you would adopt to close the gap between the ‘as is’ and ‘to be’ situation and why this/these are the most fitting ones.
  - Describe the criteria/standards, theories and/or models that you apply when considering different potential approaches for change (management)
- Describe who will be your change agents (those that facilitate the change) and why you consider these persons the most suitable ones for taking up this role.
- Describe how you would implement the change / what type of interventions you would propose. Describe these different steps in a project action plan and visualize them as a Gantt chart.
- Draw up a responsibility chart regarding who (individual employee or group of employees) is responsible for which actions at which step of the project action plan.
- Describe the way you will monitor (the progress of) the AI implementation process.
- Draft a contingency plan, addressing potential problems or bottlenecks and how to deal with these problems.

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