CRITERIA CATALOGUE FOR HUMAN-AI TEAMING WORKPLACES
Focussing on job identity promoting criteria

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BACKGROUND

Due to the early stage of AI development, newly developing systems can be designed prospectively from an occupational and organizational psychology perspective. A promising approach is to **implement cooperation between human and AI** (Kluge et al. 2021), which can...

- Contribute to the **development of much needed skills** (Hughes et al. 2019).

- Result in humans needing to perform less **monotonous tasks** in **insecure environments** (Welfare et al. 2019; Hancock et al. 2011).

- Enable **long-term employability** (Hughes et al. 2019).

- Compensate for **errors** (Kluge et al. 2021).
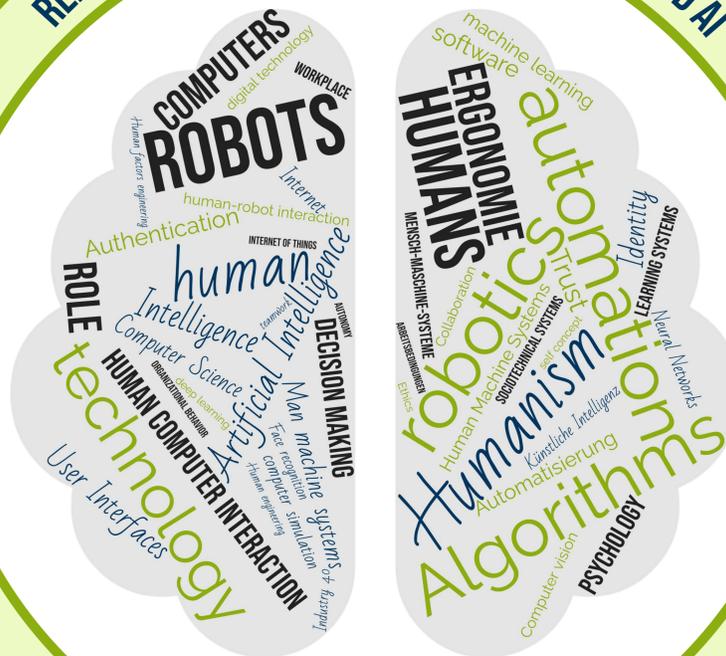
- Increase **motivation** (Hughes et al. 2019).

PURPOSE

We are developing criteria for the conversion to human-AI work processes that promote **motivation**, **identity** and **vigilance**.

The identified criteria are used to create a **catalogue** providing impulses for **fair** and **human-centered** AI development and its implementation. The catalogue aims to...

- Ensure that the **needs** and **motives** of humans are considered.

- Increase the **social acceptance** and **wellbeing** of those affected during AI implementation and long-term use

METHODS

A **scoping review** is conducted to summarize the existing research on work identity under the adoption of AI to derive **identity-promoting criteria** for human-AI teaming workplaces. Electronic source searches were conducted from January to March 2022 using operators for the following terms: *identity* AND *human-AI* OR *human-automation* AND *collaboration* AND *workplace*.

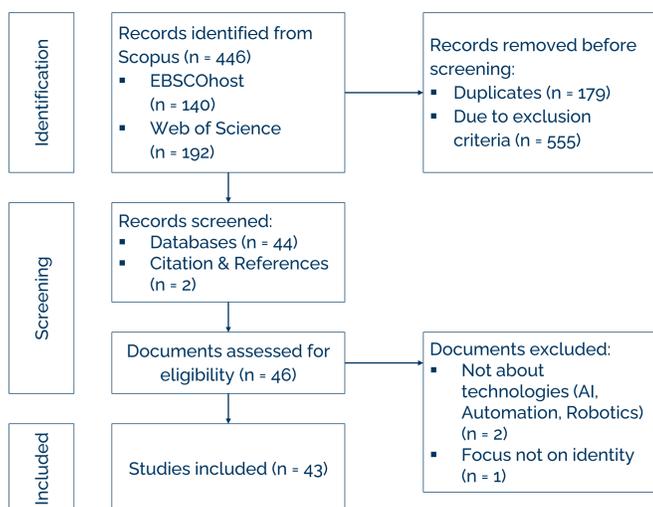### RELEVANT TOPICS IN LITERATURE ON IDENTITY AND AI

FACETS OF TASK IDENTITY

To describe **job identity** in more detail, we determined the following **task areas** people can identify with in the workplace.

creativity	problem solving	expertise	prestige
curiosity	responsibility	justice	
helpfulness	(social) connection	practical work	low effort

Identification

Records identified from Scopus (n = 446)
- EBSCOhost (n = 140)
- Web of Science (n = 192)

Records removed before screening:
- Duplicates (n = 179)
- Due to exclusion criteria (n = 555)

Screening

Records screened:
- Databases (n = 44)
- Citation & References (n = 2)

Documents assessed for eligibility (n = 46)

Documents excluded:
- Not about technologies (AI, Automation, Robotics) (n = 2)
- Focus not on identity (n = 1)

Included

Studies included (n = 43)

FINDINGS (IN PROGRESS)

There has been **little research yet** that addresses identity promotion in human-technology interaction and specifically in human-AI teaming.

Job identity is threatened by the **increasing hiring of non-disciplinary professionals with technological backgrounds** (Brink & Reichert, 2020; Oborn & Barrett, 2008).

One of the most significant **job characteristics** in human-technology interaction is **the preservation of job identity** (Manuti & Monachino, 2020; Pollak et al. 2021).

If automation is implemented in a **complementary way** and **protects the fundamental elements of the job role**, the people affected may perceive the implementation as **positive** (Flynn et al. 2019; Blease et al. 2020).

NEXT STEPS...

... Conduct a **scoping review** to summarize the existing literature on **motivation** under the introduction of AI

... Conduct a **scoping review** to summarize the existing literature on **vigilance** under the introduction of AI

... Derive **criteria** for **motivation-, identity- and vigilance-promoting human-AI teaming workplaces**

... Create a **criteria catalog** as guideline for the implementation of **human-centered AI-teaming workplaces**

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