AI and mental health from the employee perspective

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AI tools have changed the things we can do

- Artificial intelligence ("a collection of interrelated technologies used to solve problems that would otherwise require human cognition" Walsh, 2019) driven processes can out-perform speed, accuracy, and scale of human cognitive capabilities in many areas.

Picture source: Parametric Architecture

Great!!!

Or...not so great?

People's opinions on AI are very divided:
Doomsday scenarios vs over-the-top tech-utopism

(The RSA, 2019; Raisch & Krakowsky, 2021).

Most occupations will have *some* tasks that are suitable for machine learning – and will hence be affected. Few occupations will have *all tasks* that are suitable for machine learning (Brynjolfsson, et al. 2018).

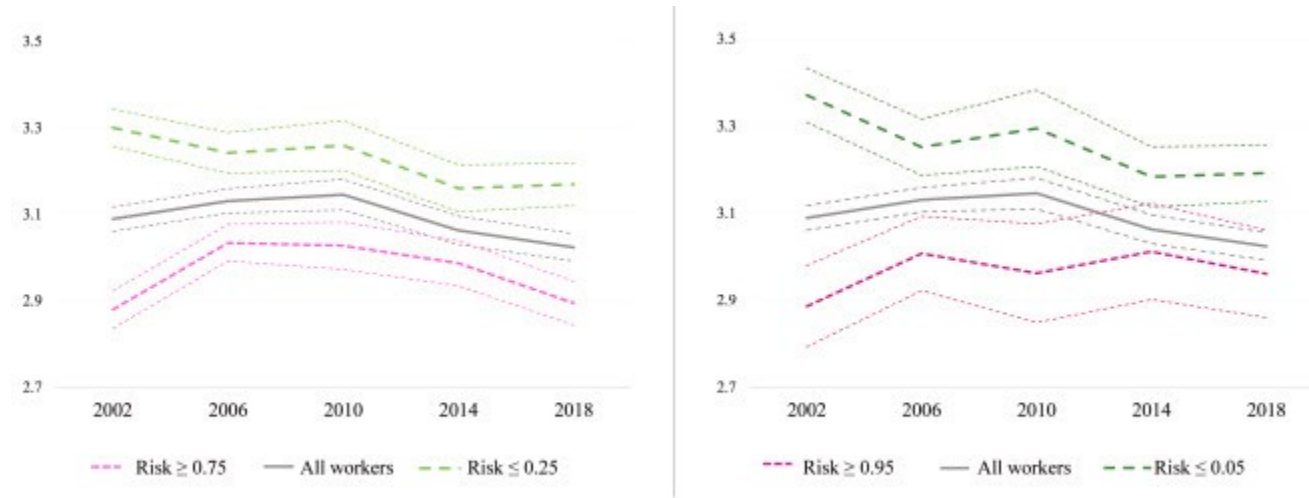The Terminator Isn't Real, But It Will Be Soon. Get Ready.

Is automatization good – or bad? for Wellbeing
Nazareno & Schiff (2021)

Country-level data

Assessed 402 occupations based on the General Social Survey (2002-2018).

Calculated a % of automatization risk index, utilizing Frey & Osborne's (2017) methodology.

A1. Above 75% and below 25% risk.

A2. Above 95% and below 5% risk.

Predicted stress levels by year and risk level
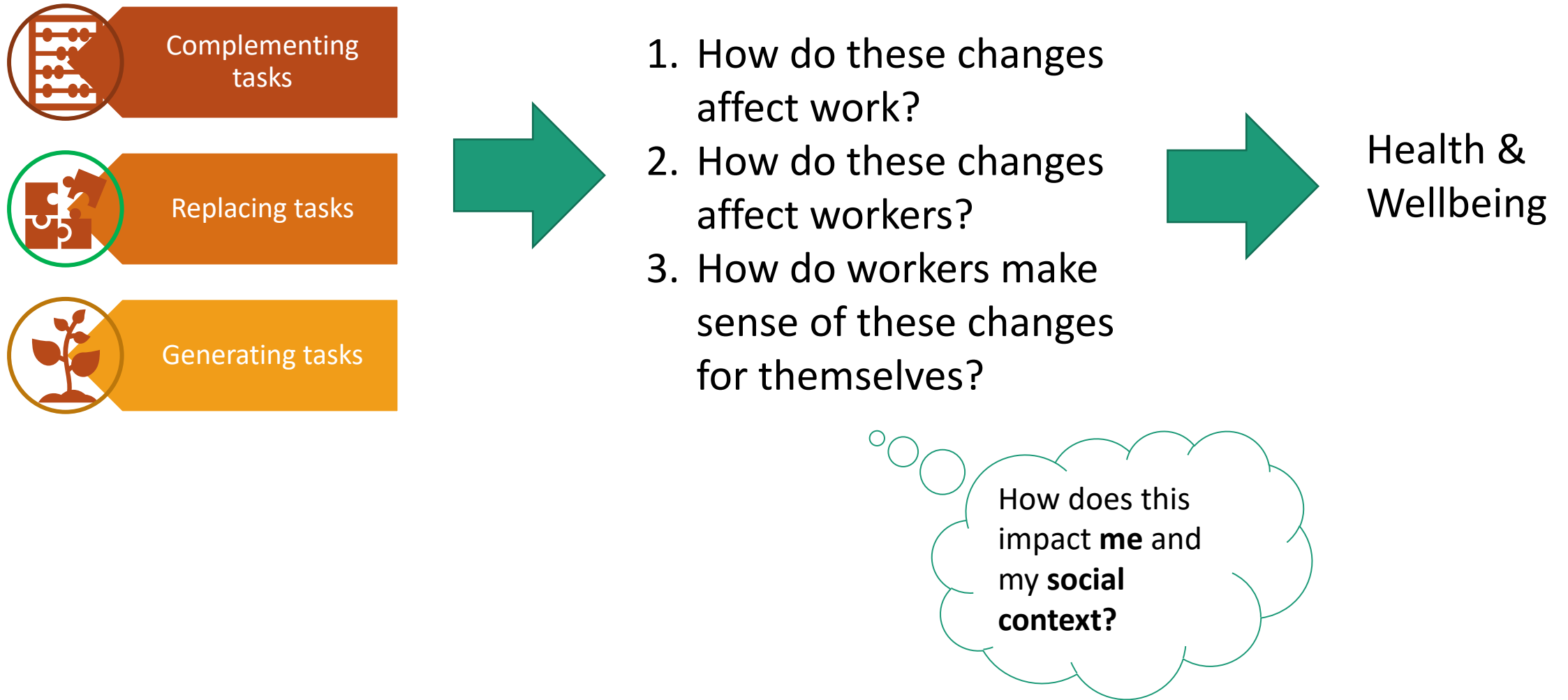
Interesting: Mixed Wellbeing effects!
- Workers with **high** automation risk experience **less stress**.
- However, they report **worse health** and mixed/negative job satisfaction.

Automatization can create stress

- witnessing superiority of robots
- pessimistic societal rhetoric

Stress appraisal – a threat that cannot be coped with

- People who witnessed more robots in their workplaces reported more burnout, more job insecurity and more workplace incivility across a variety of contexts (Yam et al., 2023)

AI functional task changes
Selenko et al., 2022

Complementing tasks

Replacing tasks

Generating tasks

1. How do these changes affect work?
2. How do these changes affect workers?
3. How do workers make sense of these changes for themselves?

Health & Wellbeing

How does this impact **me** and my **social context?**

Complementing tasks	e.g. Real time monitoring of hazards, health standards & real time intervention in work tasks	• Workers need to (e.g.): Learn new tools, unlearn old ways of doing things, learn data management skills, collaborate with software engineers, people outside their field… • Organisational roles may be reshaped, organisational hierarchies & social contexts might changeA	Roles are defined and with that related identities & what it means to be a competent professional
Replacing tasks	e.g. replacing arduous & repetitive tasks, routine tasks, complex highly skilled tasks	• Workers can no longer carry out these tasks • Organisational roles may be reshaped, organisational hierarchies & social contexts might change	May no longer enact task-related professional self-understandings. Hindered access to identity functions.
Generating tasks	E.g. new 'algorithmic occupations', training, explaining, sustaining (Wilson, 2017)	• New organisational roles, may reshape existing roles, change hierarchies and social contexts	Can expand existing occupations, create new communities, loss of previous occupations & communities

Example from the mortgage sector
"What do I do in a world of Artificial Intelligence?"

"What is actually the sense of my being here? Up to now, I have defined myself based on my loan decision competence. Now it's being taken away from me. What is it all about?" (Former CEO, AI Provider)
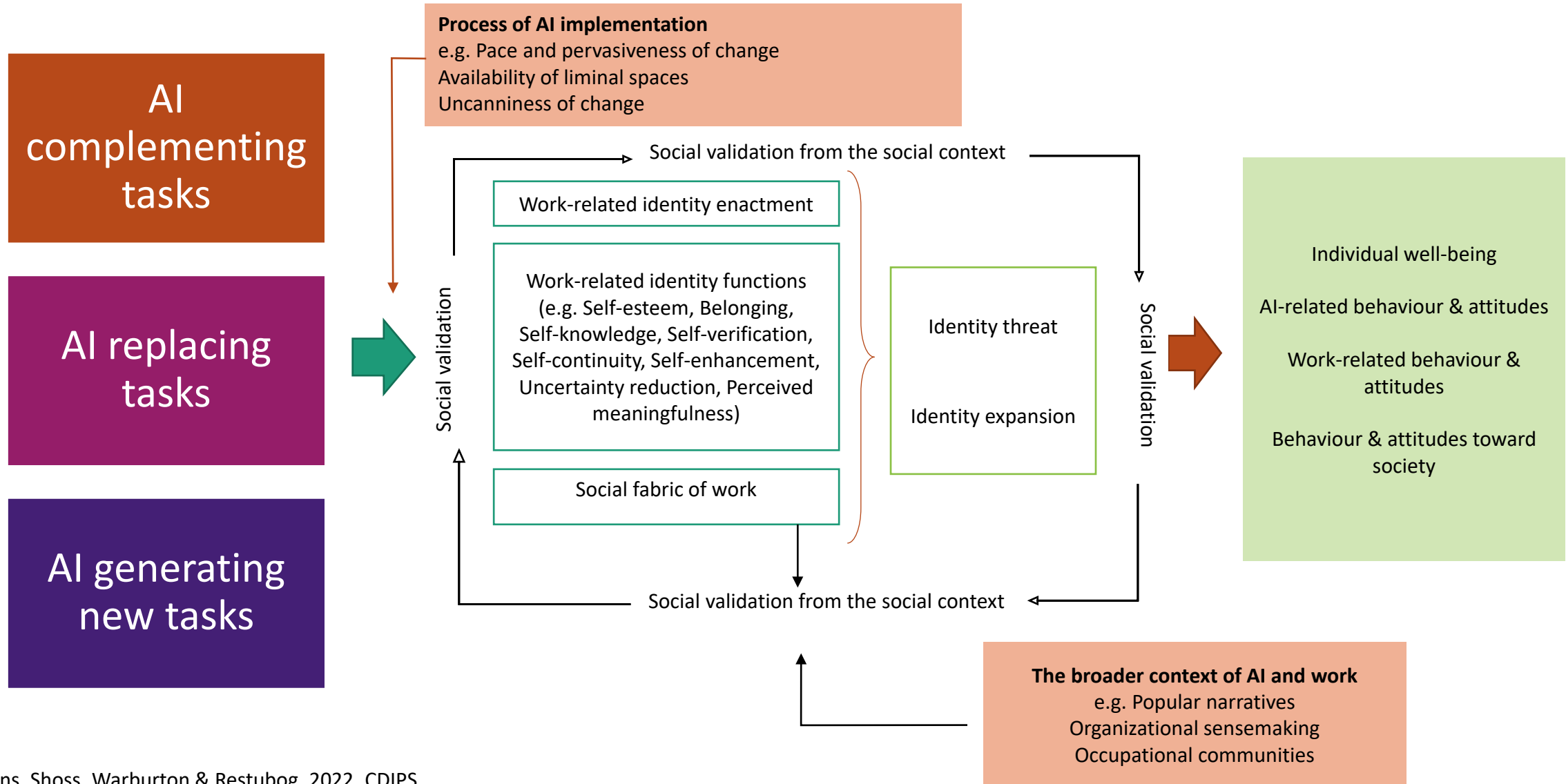
"you don't have to make the loan decision anymore, as [SR-C] had to. This decision is taken over by the system, and thus you can't actually make mistakes. You just have to accompany the customer and that's what matters." (Consultant, former service employee)

Strich et al. (2021), JAIS, 60 semi-structured interviews with employees and managers in a loan consulting firm
- Employees needed to relinquish core activities to AI systems
- Adapt to the new technology by restructuring themselves or their work processes
- Work redefinition → redefinition of self

1. What are the functional changes of AI?

2. How will the functional changes affect work-related identity enactment, functions and the social fabric of work?

Process of AI implementation
e.g. Pace and pervasiveness of change
Availability of liminal spaces
Uncanniness of change

AI complementing tasks

AI replacing tasks

AI generating new tasks

Social validation

Social validation from the social context

Work-related identity enactment

Work-related identity functions
(e.g. Self-esteem, Belonging, Self-knowledge, Self-verification, Self-continuity, Self-enhancement, Uncertainty reduction, Perceived meaningfulness)

Social fabric of work

Identity threat

Identity expansion

Social validation

Individual well-being

AI-related behaviour & attitudes

Work-related behaviour & attitudes

Behaviour & attitudes toward society

Social validation from the social context

The broader context of AI and work
e.g. Popular narratives
Organizational sensemaking
Occupational communities

Selenko, Bankins, Shoss, Warburton & Restubog, 2022, CDIPS

Influencing factors

PACE AND PERVASIVENESS OF THE CHANGE

SOCIAL VALIDATION OF THE CONTEXT

PACE AND PERVASIVENESS OF THE CHANGE

- How radical is the functional change? Does it shift the norm of what 'doing a good job' means?

- Does it affect multiple tasks simultaneously? Are not just tasks but also roles, hierarchies, job groups affected? How has the change be implemented?

→ Human centered work design needs to stand central (Parker & Grote, 2022)

- Does it change worker communities, teams, professional bodies that provided identity functions guidance, meaning, belonging, appreciation?

- Does it change status structures within organisations, within projects?

- How welcoming are others in one's team, organisation, profession, toward the change – tech utopians vs doomsday-ers?

SOCIAL VALIDATION OF THE CONTEXT

→Frequent interaction with AI systems leads to affiliation but also feelings of loneliness (Tang et al., 2023)

→Individual-level factors buffer the effect of AI experience on well-being outcomes: Self-affirmation strategies (Yam et al., 2023), attachment anxiety (Tang et al., 2023).

Concluding remarks

- AI tools will affect many different *tasks* in the workplace – replacing some, supporting others, generating new tasks

- Key issues seem to be:
  - Is the task change relevant for my own understanding of the job?
  - Am I still a good worker (in my understanding)? (Can I be made aware of this)
  - How does my community (of colleagues, society) think about the changes – can I affiliate with them?

"Technology is neither good nor bad; nor is it neutral."
(Krantzberg's First Law, 1986)

Thank you!

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