AI Transformation in Working Life: A Systematic Review of Usage and Attitudes towards AI among workers

Presenter: Iina Savolainen
Senior research fellow
Tampere University, Finland
Co-Authors: Lotta Ylinen, Roope Grönroos, & Atte Oksanen
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Emerging Technologies Lab

Human behavior in transforming technological environment

Research centre 2025–

- Founded 2018

Management

Director: Prof. **Atte Oksanen**

Vice-director: senior researcher **Iina Savolainen**

23 researchers, 4 post-doc researchers

7 senior researchers (incl. professors)

Methods Survey studies with longitudinal design, cross-national research, experimental studies, large-scale data analysis, register-based data analysis, qualitative perspectives

Research streams

1) AI in Society
2) Self and Technology
3) ICTs at work
4) Cyberhate and Cyberharassment
5) Technology and Addictions

Funding

- National and international funding
- Activities almost fully covered with external funding
- Since 2018 ca. 5–10 funded projects running at a time

This study: Background

➤ Workers are at the frontline of the AI revolution.

  ➤ Workers' perceptions of and attitudes toward AI and the challenges and opportunities they confront are crucial when it comes to successful uptake and acceptance of new technology in the workplace

➤ This major shift in AI use at the workplace calls for a synthesis of most recent research on

  ➤ how workers perceive AI and

  ➤ how workers experience the *changes* brought by AI into work

➤ Discussions about future of work are commonly negatively charged, which stems from workers' fear-based or threat-focused attitudes (Bankins et al., 2024)

➤ AI solutions bring many benefits as well.

Research questions

- We conducted a systematic literature review to respond to the need for synthesized data from the most recent years
  - Aim is to provide a unified picture of how AI is changing working life at the moment and what are workers' attitudes and experiences about this AI related change
- Our examination is guided by the following research questions (RQs):
  - RQ1: How has AI transformed working life during the past five years as experienced by workers?
  - RQ2: How are workers' attitudes towards AI related to its usage and changes in work practices?

Methods

➢ We conducted a systematic data collection following the Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA)

➢ Literature searches were carried out from five different databases:

  ➢ EBSCOhost (EBSCO)

  ➢ PsycINFO (APA)

  ➢ Scopus (Elsevier)

  ➢ Social Science Premium Collection (ProQuest)

  ➢ Web of Science (Clarivate).

➢ Inclusion criteria were:

  ➢ 1) [Article] reports qualitative or quantitative original empirical research on AI attitudes among adult employees/workers, where 'attitude' refers to workers' cognitive or affective evaluations, feelings, or beliefs about AI

  ➢ 2) [Article] reports qualitative or quantitative original empirical research on the use of AI, defined as human behaviour performed by individuals at the workplace or as part of their work tasks.

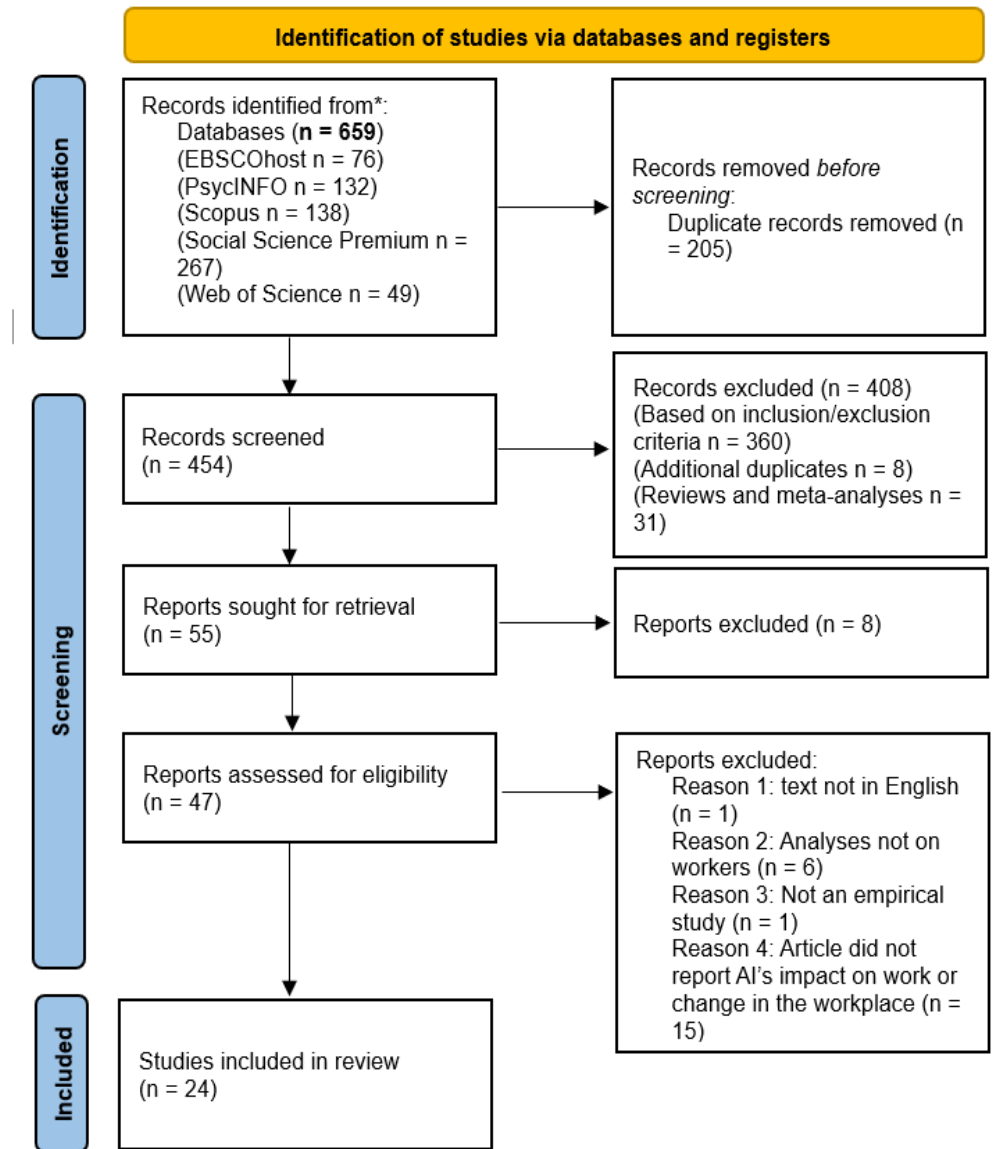 ➢ Both inclusion criteria required that the studies include an element of change.

Figure 1. PRISMA flow diagram depicting the data collection and selection process.

Results

- **Overview of the articles included (n = 24)**
  - 50% (n = 12) used quantitative methods
  - 25% (n = 6) were qualitative
  - 25% (n = 6) had a mixed-methods approach
  - Groups of workers studied
    - Healthcare professionals (n = 6)
    - Educators (n = 3)
    - HR and recruiting professionals (n = 3)
    - Marketing, public relations, and communication professionals (n = 2)
    - Manufacturing and the service industry (n = 3)
    - Legal professionals, librarians, and creative workers (n = 3)
    - Technology and data analyses professionals (n = 1)
    - Some studies did not specify the field of workers (n = 3)

Results

- **Countries of studies**
  - China (n = 5)
  - the U.S. (n = 4)
  - the U.K. (n = 3)
  - Australia
  - Germany
  - Bahrain
  - Colombia
  - Estonia
  - France
  - the Netherlands
  - the Philippines
  - Taiwan
  - Turkey
  - the United Arab Emirates

- The studies investigated various aspects of AI usage;
  - general applications
  - use in specific healthcare (e.g., radiography)
  - chatbots
  - writing tools
  - Robotics (e.g., manufacturing)

- Change in the workplace was indicated, for instance, through new ways of working, improving existing practices, and learning new skills.

Results

- How has AI transformed working life during the past five years as experienced by workers?
  - workers were increasingly aware of AI being introduced into their roles
    - In some cases, met with resistance, potentially stalling innovation and operational efficiency
  - workers' strong understanding of AI, coupled with their skills and knowledge sharing, enhanced an organization's flexibility and adaptiveness to evolving
  - reduced tasks that were routine, menial, and tolling, thus increasing productivity, efficiency, and accuracy
  - blurred lines of interaction
  - some aspects of work could not be replaced, including having a certain "human touch"
  - uncertainty in education (lack of institutional policy around AI)
  - digitization is transforming the role of reference librarians to requiring expertise similar to data scientists
  - clinicians felt AI assistance hindered their ability to formulate subjective diagnoses

Results

- How are workers' attitudes towards AI related to its usage and changes in work practices?
  - workers had generally positive attitudes toward and expectations of AI in its different forms
  - influenced by factors such as the field of work, institutional judgments, the usage context within a specific profession, background factors, and individual differences (e.g., prior experience with AI, career appraisal).
  - it is important not to generalize workers' experiences and perceptions too much from one field to another.
  - negative attitudes toward AI generally stem from AI's characteristics
    - e.g., lacking accountability and human touch, displacement of human labor, decline in professional prestige, difficulty of usage, inaccuracy, and lack of transparency.
  - workers also hold high expectations of AI
    - recognize the potential to improve work processes and ways of working

Discussion

➢ Based on the reviewed literature,
  ➢ the ways in which AI has transformed work life over the past five years are still rather subtle

➢ Most notable changes were observed in the work of professional and administrative roles, including those in consulting, accounting, finance, hospitality, marketing, and recruitment.
  ➢ mainly beneficial outcomes from the implementation of AI, primarily relating to improved processes, enhanced efficiency, and saving time.
  ➢ in some of the fields, such as human resources, AI is a particularly welcomed feature that has the potential to bring fairness and objectivity into the field

➢ Workers were not always certain whether AI was implemented in their work

Thank you!

References

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