Self-efficacy, strain, and professional identity under AI disruption

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Background

AI disruption: AI is rapidly transforming work and employees face both opportunities and challenges.
Research gaps: Research has focused more on productivity than on workers' psychological adaptation. There is a lag of social psychological perspectives.
Aim: We examine how AI use, self-efficacy, strain, and identity threat are connected.

Research questions

RQ1: How are AI strain and AI self-efficacy associated with workplace conditions and well-being?
RQ2: How does AI-induced identity threat influence these experiences?
RQ3: How do workers interpret AI disruption in everyday work?

Methods

Survey study

- *AI at Work in Finland (WorkAI*) survey (Autumn 2024, N = 2,109).
- Participants: 18–65 years old workers (M = 42.64, SD = 11.95) and 50.02% male
- Dependent variables: AI strain (adapted from technostress measures, Westermann, 2017; Ragu-Nathan et al., 2008) and AI self-efficacy (AILRSE-5, Oksanen et al. 2026)
- Independent variables: AI use and AI identity threat (adapted from Craig et al., 2019)
- Controls: Positive AI attitudes (4 items, from GAAIS, Schepman & Rodway, 2020), work engagement (UWES-9, (Schaufeli et al., 2017), Flourishing (4 items from Flourishing Index Measure, VanderWeele, 2017), age, gender, education, occupational group and income.

Interview study

- Qualitative Interviews (N = 54) from six organizations from different fields (urban planning, media and communications, IT services and consulting, forestry and paper industry, and one city organization)
- Participants: 61% male, 43% holding supervisory or managerial positions.

Results

Quantitative results

- **AI use at work.** About half of Finnish workers reported using AI tools at least occasionally in daily work. Use of AI tools has increased since Autumn 2024.
- **AI strain** was higher among workers who used AI more frequently, worked in organizations using AI, and experienced AI as a threat to their professional identity. AI identity threat was the strongest predictor of AI strain (β = .73, p < .001). The models explained 61% of variance in AI strain.
- **AI self-efficacy.** AI learning self-efficacy was higher among workers with more frequent AI use, more positive AI attitudes, and higher flourishing. Positive AI attitude was the strongest predictor of AI self-efficacy (β = .52, *p* < .001), while AI identity threat was negatively associated with self-efficacy (β = –.12, *p* < .001). The models explained about 50% of variance.
- **Use x threat.** Professional identity threat was central: it strongly predicted AI strain and weakened AI self-efficacy, especially among frequent AI users.

Qualitative results

- Workers simultaneously experienced AI as an opportunity for learning and effectiveness and as a source of uncertainty, pressure, and identity-related concerns.
- **Must** (obligation)**:** AI created expectations to adapt and learn, but organizational support varied.
- **Can** (capability)**:** Workers viewed AI as a useful resource, yet many questioned whether their skills would remain sufficient in the future.
- **Know** (knowledge)**:** AI generated continuous learning demands and uncertainty about what knowledge would be needed next.
- **Want** (motivation)**:** Most participants were motivated to explore AI, although enthusiasm was often accompanied by concerns about future changes.

Fig 1. *Interaction effect of AI identity threat and AI work use on AI strain*

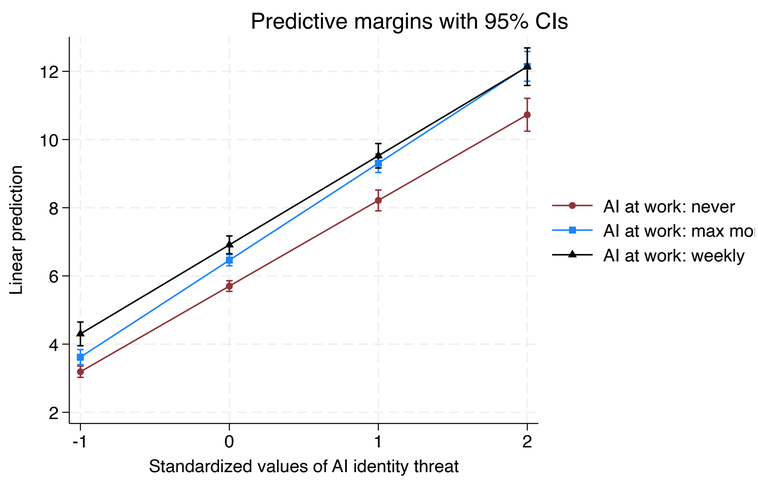


Fig 2. *Interaction effect of AI identity threat and AI work use on AI self-efficacy*

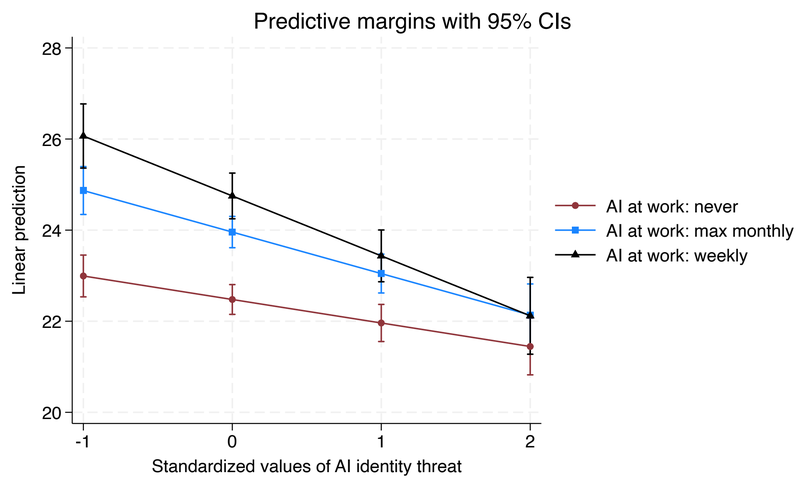
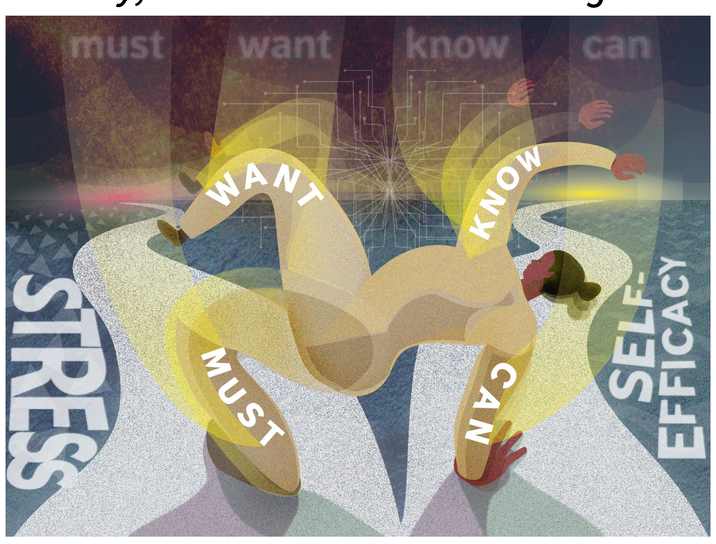


Fig 3. *Navigating the AI Storm: Stress, Self-Efficacy, and the Modalities of Change*



Note. Picture by Ika Österblad (Mediakunta, Finland)

Conclusion

Key contribution

- **Identity matters**: AI-induced identity threat helps explain who experiences AI as stressful.
- **AI Self-efficacy and strain coexist**: confidence in learning AI does not eliminate pressure.
- **AI is ambivalent**: workers describe AI as both opportunity and obligation, and workers need to constantly negotiate what they must, can, know, and want.

Practical implications: AI adoption requires support beyond technical training

- time and resources for learning
- clear expectations around AI use
- recognition of identity-related concerns
- dialogue about uncertainty, workload, and well-being

Conclusion: AI transformation at work is about professional identity and well-being, not only tasks or skills. Workers adapt through questions of competence, obligation, and identity.

Project background and references

- This study is based on *AI Disruption at Work* Project (PI: prof. Atte Oksanen, 2024–2026, funded by the Finnish Work Environment Fund)
- The project utilized mixed methods approach in Finland
- Longitudinal *WorkAI* survey continues 2027 (the 5th time-point)

Selected publications

1. Oksanen, A., Osma, T., Heiskari, M. Cvetkovic, A., Soares Ruokosuo, E. Koike, M. Arriaga, P., Savolainen, I. (2026). Mapping AI Learning Readiness Self-Efficacy Worldwide: Scale Validation and Cross-Continental Patterns. *Computers in Human Behavior: Artificial Humans, 7*(March 2026), 100251. https://doi.org/10.1016/j.chbah.2026.100251.
2. Oksanen, A. & Savolainen, I. (2026, forthcoming). *AI Disruption at Work: Employee Identity, Emotion, and Adaptation.* Palgrave Macmillan.
3. Savolainen, I., Ylinen, L., Grönroos, R., & Oksanen, A. (2026). AI Transformation in Working Life: A Systematic Review of Usage and Attitudes towards AI among workers. *Digital Business* 6(1), 100162. https://doi.org/10.1016/j.digbus.2025.100162.