

DIGITALISATION

**Managed by a robot:
Exploring acceptable
use cases of
algorithmic
management through
LEGO Serious Play**

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Prior research on worker and management attitudes towards algorithmic management systems has primarily focused on the context of gig work platforms, as well as high volume blue collar work, e.g. telesales. A key discussion point has been ensuring the transparency of algorithmic management systems in order to improve users' feelings of agency (Tuomi et al. 2024).

However, not much is known about the applicability of algorithmic management systems in the context of expert and knowledge work. How might the use of algorithmic management impact white collar workers – and their human managers – in Finland? What would be acceptable example use cases for algorithmic management?

As part of Haaga-Helia's RoboBoss – AI in the leadership of knowledge workers -project, this is the question we want to explore further in this article.

Automated or partly automated digital systems making management decisions

Digital tools have made many professional work environments places of constant measurement, whereby different types of key performance indicators (KPIs) and less formalised data and other metrics are tracked at all levels of many organisations.

The concept of algorithmic management refers to the intentional use of digital, partly or fully automated systems, data analytics, and algorithms to oversee, direct, and optimise worker performance and decision-making processes, based on the measured data. For instance, a company might use an automated digital system for making worker schedules, or for automatically approving travel expenses.

Similarly, a company might already use a digital system for recording workers' daily hours. Making the leap of using the tracked data for recognising patterns – e.g. constant overtime as a warning sign of burnout – is not a major one from a technology perspective, but socially

it requires careful consideration from the acceptability of digital systems.

Haaga-Helia's RoboBoss-project focuses on finding out how expert and knowledge workers will react when an automated or partly automated digital system makes management decisions, and how managers feel working alongside such a system.

Combining research and learning

In line with Haaga-Helia's RDIL strategy – research, development, innovation, learning – we decided to enlist the help of Master students from the course Imagineering with LEGO Serious Play Methodology. Prior research has indicated that LEGO Serious Play may be a useful tool for exploring complex topics, particularly for understanding the complex impacts of emerging technologies (Tuomi, Tussyadiah & Stienmetz 2019).

Through two rounds of LEGO building and reflective discussion, 21 students built a total of 27 acceptable example use cases of algorithmic management in the context of expert and knowledge work.

The LEGO building exercises followed a similar protocol than Tuomi & Ascensão (2024), in order to allow for comparison between data collected in 2023 and 2025.

Acceptable example use cases for algorithmic management

Some examples of the acceptable use cases for algorithmic management included systems that would flag deviant or unhealthy behaviour, e.g. misusing company resources or being constantly online at odd times. Algorithmic management could also be used for providing employees with personalised suggestions for continuous learning, e.g. enrolment on specific courses or entire degree programmes. Likewise, students saw

that algorithmic management systems could be used to suggest suitable candidates for promotions.

Interestingly, students' LEGO models also captured specific technical approaches, e.g. using computer vision to monitor recycling at workplaces.

Comparing the present findings with a similar dataset collected in 2023 (Tuomi & Ascensão 2024), it can be seen that there is significant overlap between acceptable use cases described in 2023 and in 2025.

Overall, despite recognising the potential for algorithmic management, there was a strong sense of the need to keep human managers – as well as those managed by human-machine teams – in the loop. In practice, participants emphasised that algorithmic management systems should primarily make suggestions that would still have to be approved by a human manager.

Further exploration of transparent and supportive algorithmic management systems

Algorithmic management remains a complex and nuanced topic that intersects technology, human psychology, and organisational culture. Findings from this study indicate that white collar workers are open to algorithmic management systems, provided these are transparent, human-centric, and supportive rather than prescriptive. There is clear recognition of the complementary role that algorithms can play alongside human managers, enhancing managerial capabilities rather than replacing them.

Moving forward with the RoboBoss-project, continued exploration through LEGO Serious Play workshops and collaboration with partner companies will enable the identification of context-specific, acceptable practices of algorithmic management in the context of expert and knowledge work. Ultimately, the goal is to ensure that the adoption of

algorithmic management not only improves operational efficiency but also fosters environments of trust, transparency, and empowerment.

RoboBoss – AI in the leadership of knowledge workers -project is co-funded by the Finnish Work Environment Fund and runs between 03/2025-09/2026. The aim of the project is to ascertain AI's tangible impact on management practices and establish guidelines for responsible AI leadership in the context of expert and knowledge work.

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KIRJOITTAJAT:

Aarni Tuomi

lehtori, majoitus ja
ravitsemisliiketoiminta
lecturer, hospitality business
Haaga-Helia ammattikorkeakoulu

Mário Passos Ascensão

yliopettaja, palveluinnovaatiot ja -
muotoilu
principal lecturer, service innovations
and design
Haaga-Helia ammattikorkeakoulu

Visiting Research Fellow
University of Surrey

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Contact:
julkaisut@haaga-helia.fi
www.haaga-helia.fi

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