

SERVICE BUSINESS

Algorithmic management in service business frontlines

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Since the end of February 2026, an AI-powered chatbot named Patty has lived inside employee headsets at 500 US Burger King restaurants. Patty answers employees' operational questions (e.g. recipe reminders, restocking alerts) and analyzes drive-thru audio conversations with guests for keywords like 'please' and 'thank you', aggregating these into team-level friendliness scores. The argument is that these can then be used for monitoring determinants of positive customer experience at scale – and plan effective interventions.

Burger King states the system does not record conversations or evaluate individuals. All US locations are expected to have access to the system by end of 2026 (Kaye 2026).

While quick service restaurants have made heavy use of mysteryshopping and other forms of systematic quality control, Patty is an example of a new management phenomenon which is gaining pace, algorithmic management. It refers to the transfer of decision-making and managerial tasks to automated systems, digital tools, or artificial intelligence (Tuomi et al. 2024).

At Haaga-Helia, we have conducted extensive research on algorithmic management. For example between 2022-2023, the AlgoAmmatti-project studied algorithmic management in the context of platform workers, providing suggestions for how to increase the transparency of such systems in practice.

More recently, Haaga-Helia's RoboBoss-project has examined algorithmic management within professional and knowledge-based sectors – domains where AI's role has hitherto received limited research attention and understanding. The RoboBoss-project aims to understand the acceptance of algorithmic management at Finnish expert organisations.

To complement these views, in this article, we join forces to discuss how the concept of algorithmic management is continuing to also shape the service sector, specifically frontline services and what acceptable use cases of algorithmic management in hospitality could look like.

Algorithmic management in the frontlines

Algorithmic management already exists across hospitality through e.g. scheduling software, revenue management systems, and feedback platforms. What Patty adds is dynamic audio analysis of frontline interactions.

Such changes may shift the focus of management and leadership. In their work, Jianu, Ashton and Lugosi (2025) argue that as hotels adopt algorithmic management systems, frontline managers will not become less important but will instead take on a new role as ‘algorithmic coaches’, helping employees understand, adapt to, and work effectively within algorithm-driven systems. Using a three-stage Delphi study with hotel managers and academic experts, the authors find that algorithmic management may improve efficiency, standardisation, and accountability, but it can also intensify work, reduce motivation and collaboration, and create concerns around transparency and fairness.

To illustrate, a friendliness score by Patty framed as recognition could work as positive reinforcement, while the same score framed as performance tracking shifts the dynamic toward control.

The Burger King case makes a broader trend visible and concrete. The question for hospitality professionals is how these systems are designed and communicated to the people who work alongside them every shift.

Accepting or rejecting algorithmic management

Research into acceptable use cases of algorithmic management suggests workers are open to these systems when they are transparent, supportive, and keep human managers in the decision loop (Tuomi & Ascensão 2024).

What specific behavior does the system measure, and is that what matters for service quality? Do the people being measured know about it or understand the system well enough to trust it? Does the system create

space for better human interaction, or does it add performance anxiety to an already demanding job?

If an algorithm can hear whether your staff says ‘please’, who is responsible for understanding why they sometimes do not?

This is reminiscent of what Jianu, Tussyadiah and Miller (2025) refer to as modalities of (in)visibility, meaning that what algorithms make visible or hide helps shape power, control, and whether work feels enabling or dehumanising. In essence, algorithmic management in hospitality becomes more or less ‘humanised’ not because of the technology alone, but through how managers, employees, and algorithms interact in everyday practice.

Drawing on 30 semi-structured interviews and public document analysis, the authors show that algorithmic management is shaped through a triadic relationship in which managers calibrate and correct algorithmic outputs, while employees interpret and contest them.

Against this backdrop, we argue that managing this triadic relationship thus becomes a key (hospitality) management soft skill in the age of AI-mediated workflows.

Avoiding the algorithmic nightmare

In their work, Schmidt & Oskam (2026) warn against the risks of algorithmic management in hospitality, whereby algorithmic management represents a significant facet of what they dub a Nightmare of Modern Times scenario. As Schmidt & Oskam (2026) discuss, hyper-optimization of operations risks stripping away the ‘slack’ essential for genuine human connection. The authors argue that when AI and algorithms are deployed solely for relentless efficiency (i.e., measuring every interaction in micro-shifts and optimising guest interactions) it engineers the soul out of the industry.

To avoid a sterile operation where the human touch becomes a mere performative checklist, hospitality leaders must therefore protect a

‘human resource slack budget’ to ensure technology amplifies, rather than erodes, the essence of hospitality experience.

To be able to deliver exceptional experiences, management must trust employees enough to let them do just that. Topics such as algorithmic transparency by design (how to make digital systems easy to understand and interpret), as well as change management (how to successfully introduce and integrate new digital tools into the work day of others) become essential skills requirements to avoid the negative outcomes of algorithmic management in hospitality.

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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Joel Pakalén

lehtori

Haaga-Helia ammattikorkeakoulu

Aarni Tuomi

lehtori, majoitus ja

ravitsemisliiketoiminta

lecturer, hospitality business

Haaga-Helia ammattikorkeakoulu

Visiting Research Fellow

University of Surrey

Alexander Lennart Schmidt

Hotelschool The Hague

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Contact:

julkaisut@haaga-helia.fi

www.haaga-helia.fi

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