Algorithmic Management: The Role of AI in Managing Workforces

Mohammad Hossein Jarrahi, Mareike Möhlmann, and Min Kyung Lee

Successful implementation requires new competencies and ethical considerations.

With the help of digital technology, complex managerial tasks, such as the supervision of employees and assessment of job candidates, can now be taken over by machines. While still in its early stages, algorithmic management — the delegation of managerial functions to algorithms in an organization — is becoming a key part of AI-driven digital transformation in companies.

Algorithmic management promises to make work processes more effective and efficient. For example, algorithms can speed up hiring by filtering through large quantities of applicants at relatively low costs. [1] Algorithmic management systems can also allow companies to understand or monitor employee productivity and performance. [2] However, ethical challenges and potential negative downsides for employees must be considered when implementing algorithmic management. In the case of hiring, AI-enabled tools have faced heavy criticism due to harmful biases that can disfavor various groups of people, resulting in efforts to create guidelines and regulations for ethical AI design.

In this article, we build on our years of research on algorithmic management and focus on how it transforms management practices by automating repetitive tasks and enhancing the role of managers as coordinators and decision makers. However, the introduction of algorithms into management functions has the potential to alter power dynamics within organizations, and ethical challenges must be addressed. Here we offer recommendations for how managers can approach implementation using new skill sets.

Profit From Scale and Efficiency While Improving Workforce Well-Being

Algorithms can enhance the scale and efficiency of management operations. In the gig economy, algorithmic systems coordinate and organize work at an unprecedented scale — think about the number of matching riders and

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