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Industrial Applications of Artificial Intelligence: From Grand Stories of Digital Disruption to Actual Progress

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Abstract

Data-driven operations management goes along with narratives of disruptive change and new potential for innovation. We study how these narratives are reflected in the outcomes of 82 implementation projects that took place during the last ten years. The analysis of the projects identifies varying focal points in different industrial sectors. Radical steps towards new forms of data-driven operations management have only been achieved in exceptional cases. For the most part, new technical solutions follow given organizational structures and preserve extant business processes. We describe typical implementation patterns, compare them across industries and discuss different interpretations of the findings.

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