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Improving Data Quality with Ecosystem Orchestration

TREO Talk Paper

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Abstract

The evolution of the digital economy has transformed business models, which are increasingly being restructured into ecosystems, i.e., environments involving numerous actors who generate data from their interrelations (Pappas *et al.*, 2018). In this scenario, data has become an important asset that allows companies to analyze trends and to make better decisions using data from partners and suppliers (Sultana *et al.*, 2022). However, although ecosystem data can be used for managerial purposes, poor data quality often prevents companies from maximizing the full potential of data. Based on the innovation literature (Autio, 2020), we suggest using orchestration to improve data quality in ecosystems. Briefly, orchestration refers to a set of skills that allows assets and activities in ecosystems to be coordinated to achieve a certain goal – in this case, to enhance data quality. Hence, we seek to identify which orchestration skills help improve data quality in ecosystems. Following the taxonomy indicated by Gelhaar *et al.* (2021), we will focus on centric ecosystems. In addition, given the close relation between data quality and data governance identified in information systems (IS) literature (Al Wahshi *et al.*, 2022), our research model will consider data governance maturity by analyzing structural, procedural and relational mechanisms from the ecosystem perspective. We expect to find that ecosystems with low data governance maturity have low data quality, and hence could benefit more from orchestration. Additionally, we expect to find organizations that constitute data quality bottlenecks in the ecosystems that could potentially harm data quality. This research will facilitate the understanding of how orchestration could be used to improve data quality in ecosystems, allowing organizations to make better decisions using reliable data, while also increasing the value created by data in the ecosystem. This study could also help centric organizations identify the skills needed to orchestrate their ecosystems.

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