Leveraging Digital Transformation for Data-driven Business Process Optimisation: A Case Study in UK Higher Education

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Abstract:

In today's landscape of rapid digital transformation, data-driven strategies have become vital for enhancing business operations across various sectors. Large organisations—especially those with complex stakeholder networks—often face inefficiencies due to siloed workflows, limited automation, and poorly structured data. Higher Education Institutions (HEIs) are no exception. This paper explores how digital transformation can address these challenges within the UK HE sector, focusing on Salford Business School as a case study. It centres on the Academic Personal Tutoring (APT) system, where tutors play a key role in supporting student success through timely academic interventions. Currently, the APT process relies heavily on manually consolidating fragmented data, which hampers the team's responsiveness and overall effectiveness. To tackle this, the study presents an ongoing initiative that applies AI-driven analytics and automation to streamline processes, unify data sources, and improve decision-making. It outlines the project's core deliverables, i.e. data pipeline and prototype system, and details the methodological approach used to optimise digital workflows. Insights from focus groups is also discussed to inform future development pathways.

Through this case, the paper contributes to the broader conversation on how data-driven innovation can enhance processes and outcomes in higher education.

Keywords:

Process Automation, Organisational Efficiency, Productivity, Academic Intervention.