Preface to the Special Issue on Artificial Intelligence for Business Process Management 2019

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According to this paper, we will soon witness important changes in Business process Management thanks to artificial intelligence and machine learning especially in fields like industrial engineering for example. Its main tasks will be either to replace human labor by machine labor or instead of replacing them, to simply help them.

This document is based on five different articles.The first one called "*Execution of Knowledge-Intensive Processes by Utilizing Ontology-Based Reasoning,*" tells us thanks to OWL2 (which is a language that describes things and their relationship) and SWRL rules (which is a language that invent logical rules) that if we gathered all the information together, it will be easier for us to know if a task can be done. Whereas the document "*Resource Controllability of Business Pro- cesses Under Conditional Uncertainty,*" deals with Conditional Constraint Networks with Decisions or CCNDs. They set up the characteristics of the CCNDS and created a tool called Zeta to supervise the controllability of CCNDS for example. Whereas while reading the document "T*owards Automated Support of Complaint Handling Processes: An Application in the Medical Tech- nology Industry,*" we understand that the model that they created is very useful and powerful because in the three quarter of cases, it says the right error code. In addition to those papers, there is also the document named "*Specifying and Executing User Agents in an Environment of Reasoning and RESTful Systems using the Guard-Stage-Milestone Approach*," that explains us that the environment of work isn't a determining factor and the Guard Stage Milestone way which is a way to manage a project by checking regularly for example by having deadlines, is linked to the Read-Write Linked Data meaning the fact to get easier access to data in order to share or to benefit from them for example. Finally, the document*"AI-empowered Process Mining for Complex Application Scenarios: Survey and Discussion*," explains how classical process mining tasks benefit from AI. The authors have considered two aspects that lead to this affirmation, the knowledge given by the user and doing one learning task in addition to the main one.