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Investigating the Process of Process Modeling: Towards an In-depth Understanding of How Process Models are Created

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Abstract

Business process models have gained significant importance due to their critical role for managing business processes. Still, process models display a wide range of quality problems. For example, literature reports on error rates between 10% and 20% in industrial process model collections. Most research in the context of quality issues in process models puts a strong emphasis on the product or outcome of the process modeling act (i.e., the resulting process models), while the process followed for creating process models is only considered to a limited extent. The creation of process models involves the elicitation of requirements from the domain as well as the formalization of these requirements as process models. In this presentation the focus will be on the formalization of process models, which can be considered a process by itself–the process of process modeling (PPM).

In particular, this keynote will discuss how the PPM can be captured and analyzed. For this, it will present a specialized modeling environment, which logs all interactions of the process modeler with the modeling environment, thus, providing the infrastructure to investigate the PPM. The keynote will also shed light on the way how process models are created, present different behavioral patterns that can be observed, and discuss factors that influence the PPM, e.g., modeler-specific factors like domain knowledge or process modeling competence and task-specific factors. In addition, the keynote will provide an outline on how methods like eye movement analysis, think aloud, or the analysis of bio-feedback (e.g., heart rate variability) might enable even deeper insights into the PPM.

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