

# Towards Aspect-Oriented BPM for Knowledge-intensive Processes

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## Research Interests:

Adaptive Case Management, Business Process Management, Data Management, Complex Event Processing

## Abstract:

Today's organizations are socio-technical systems in which human workers increasingly perform knowledge work. Knowledge workers already face a broad range of tools to support their work, e.g. adaptive case management systems, tailored information systems, groupware, collaboration tools, and other (process) support systems. Ultimately, processes and their artifacts are scattered across many systems and data sources. The overlapping structured, semi-structured, and ad-hoc work across systems that comprises the overall process entails redundant work, potentially discrepancies, and a lot of effort to gain an actual system of record by manually and automatically keeping process data consistent. A lot size of one often results in "Excel tools" and a set of templates, but actual automation of routine aspects in knowledge-intensive processes is scarce. This talk outlines how we tackled this problem with a speech-act-based approach at the Chair of Computer Science 6, how we evolved it at Pertuniti by implementing process management for knowledge-intensive processes as project and knowledge management with a focus on collaboration and communication, and how we currently further advance it with aspect-oriented process modeling. While the overall process may remain completely ad-hoc, modeled routine aspects can be applied as subprocess instances that share the same context. Routine aspects like travel expense handling, checklists in event management, strict documentation requirements, or simply filling artifacts with data the systems involved already have, can be shared in a wide range of processes. Automation, guiding of routine work, and completely ad-hoc activities are performed within the same context. This way, organizations can gradually extend their automation, facilitate an actual system of record, and remain flexible where they need to.