

Effective, co-created and compliant adaptive case management systems for knowledge workers: Dynamic Condition Response Graphs and the EcoKnow Research Project

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Research Interests:

Formal process models and semantics for concurrent, distributed and mobile systems, and their strategic applications to the development of new process languages and technologies for trustworthy, process- and service-oriented information systems, involving both computers, humans and their surrounding context.

Abstract:

So far, most digitalization of knowledge work is about recording and retrieving information. Most processes are coordinated by email or paper, and only small trivial tasks are supported by process automation. The inter-disciplinary EcoKnow.org Grand Solutions research project funded by Innovation Fund Denmark aims to change this situation and deliver new technologies for effective, co-created and compliant adaptive case management systems for knowledge workers. In the talk we will present the key enabling technology for the EcoKnow project – the declarative Dynamic Condition Response graphs process language, developed through 10 years of research and now commercially supported by a software stack including a design and simulation tool, a process engine, analysis and declarative process mining – all available for free trial at dcrsolutions.net. The latest innovations are tools for mapping processes from natural text supported by NLP – and a declarative process mining tool making it possible to suggest process rules from looking at past scenarios.

Half-way through the project, the technology is widely available embedded in the workflow management systems used in Danish governmental institutions and we are gathering feedback from how it is used in practice. In addition to the theoretical background, we give a demo of the tool and pointers to future research and developments.