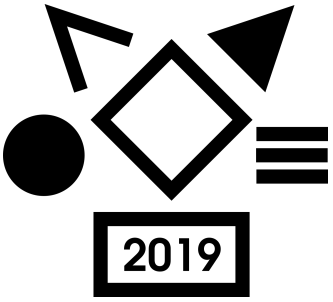

DEClarative, DECision and Hybrid approaches to processes (DEC2H 2019)

Formerly known as *DeHMiMoP*

To be held in conjunction with BPM 2019

https://ai.wu.ac.at/dec2h2019/

Call for Papers

Processes and business process models involve *rules* and *decisions* describing the premises and possible outcomes of specific situations. However, rules and decisions are often implicit in process flows, process activities or in the head of employees (tacit knowledge). To make them explicit, they must be discovered using state-of-art techniques. For knowledge-intensive processes, it is common that rules and decisions, as opposed to the process-flow, define the allowed behaviour of a process. For example, the major purpose of an insurance claim process is to ensure that the rules governing the claim are being followed and to arrive at a final decision.

While traditional imperative notations such as BPMN excel at describing "happy paths", they are inadequate for directly modelling rules and decisions. This follows from the fact that imperative notations describe possible behaviour as alternative, restricted flows. Encompassing all possible variations makes imperative models cluttered and thus impractical in highly flexible scenarios. Against this background, a new declarative modelling paradigm has been proposed that aims to directly capture the business rules or constraints underlying the process. The approach has gained momentum, and in recent years several declarative notations have emerged (e.g., Declare, DCR Graphs, DMN, GSM, CMMN, eCRG, and DPIL). Lately, there has been a rapidly growing interest in hybrid approaches, which combine the strengths of different modelling paradigms.

In this workshop, we are interested in the application and challenges of decision- and rule-based modelling in all phases of the BPM lifecycle: identification, discovery, analysis, redesign, implementation and monitoring. Contributions may include completed work (research, case studies and tools), but also work-in-progress and position papers.

The purpose of the workshop is:

- To examine the relationship between rules, decisions and processes, including **models; not only to model the process**, but **also to model its rules and decisions**.
- To enhance **rule and decision mining** based on process data (e.g. event logs)
- To examine decision **goals, structures**, and their connection with business **processes**, in order to find a good integration between rule- and decision-based modelling and flow-based modelling.
- To examine **standards** (DMN, CMMN, BPMN) and their integration.
- To study how different process models can be **designed** to fit a decision process, according to various optimization criteria, such as throughput time, use of resources, etc.
- To study the **integration** of different modelling paradigms.
- To show **best practices** in separating process, rule and decision concerns.

Topics of interest

Topics of interest include, but are not limited to:

Declarative and hybrid (process modelling) approaches

- Declarative notations (Declare, DCR Graphs, GSM, eCRG, DPIL, …)
- Decision & goal notations (DMN, PDM, …)
- Case management notations (CMMN, …)

- Hybrid notations
- Declarative and hybrid modelling methodologies
- Process metrics
- Process maintenance and flexibility
- Human-centred and flexible processes
- Decision rules and processes
- Decision models and structures
- Formal analysis (e.g. expressiveness proofs) of declarative and hybrid notations
- Formal verification (e.g. model-checking and static analysis) of declarative and hybrid models
- Run-time adaptation of declarative and hybrid process models

Decision mining and declarative/hybrid process mining

- Decision mining
- Declarative process mining
- Hybrid process mining
- Data mining for decision and declarative/hybrid process analysis
- Rule mining for decision and declarative/hybrid process analysis

Applications of decision- and rule-modelling in BPM

- Goal-driven processes
- Knowledge-intensive processes
- Business process compliance
- Knowledge workflow management
- Usability and understandability studies
- Case studies
- Tools

Format of the Workshop

The workshop will begin with a keynote, followed by presentations of accepted papers. Full papers have 20 minutes for their presentations and 10 minutes for discussion and Q&A. Short papers have 15 + 5 minutes. At the end of the workshop, there will be a closing panel discussion.

Each manuscript will be reviewed by at least three program committee members guaranteeing that only papers presenting high-quality work and innovative research in areas relevant to the workshop theme will be accepted. All accepted papers will appear in the workshop proceedings published by Springer in the Lecture Notes in Business Information Processing (LNBIP) series. There will be a single LNBIP volume dedicated to the proceedings of all BPM workshops.

All accepted papers will appear in the workshop proceedings. They will be distributed electronically on USB sticks. The post-proceedings will be published by Springer in the Lecture Notes in Business Information Processing (LNBIP) series, in a single volume dedicated to the proceedings of all BPM workshops. During a time window after the conference, the workshop participants will be granted the free download of the papers.

Submission

We are interested in **research**, **work-in-progress**, **position**, **case-study** and **tool papers**, either in **long** (not exceeding **12 pages**) or **short** (not exceeding **6 pages**) **format**. Only papers in English will be considered. Submitted papers must present original research contributions not concurrently submitted elsewhere. Authors are requested to prepare submissions according to the LNBIP format specified by Springer (instructions, latex-template). The title page must contain a short abstract and a list of keywords, preferably using the list of topics given above. Papers must be submitted electronically via EasyChair: enter the main conference installation (BPM 2019) and select "Workshop on DEClarative, DECision and Hybrid approaches to processes" as the submission track.

Special Issue

Depending on their quality, the authors of selected papers in DEC2H will be invited to submit revised and extended versions of their work for a special issue in the Journal on Data Semantics (JoDS), edited by Springer. The special issue is organised together with the chairs of the Workshop on Process Querying (PQ), held in conjunction with BPM 2019.

Important Dates

- Papers submission deadline: May 24, 2019
- Papers submission deadline: ~~May 24, 2019~~ May 31, 2019 (extended!)
- Notification deadline: June 28, 2019
- Camera-ready deadline: July 12, 2019
- Workshop: September 2, 2019

Organisers

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