AI Meets Business Processes 2013
Workshop Proceedings

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Business Process Management (BPM) is a set of activities aimed at defining, executing, monitoring and optimizing business processes (BP), with the objective of making the business of an enterprise as effective and efficient as possible, and of increasing its economic success. Such activities are highly automated, typically by means of the workflow technology. BPM activities, and BP optimization in particular, may ask the enterprise to be able to flexibly change and adapt the predefined process schema, in response to expected situations (e.g. new laws, reengineering efforts) as well as to unanticipated exceptions and problems in the operating environment (e.g. emergencies).

Several classical Artificial Intelligence methodologies can be relied upon, in order to properly manage BP and their adaptation. Knowledge representation and reasoning techniques can be exploited for modeling processes and exceptions, for modeling background knowledge (e.g. in the form of ontologies) and to reason about them (e.g. for logic-based verification). Moreover, since many systems share the idea of recalling and reusing concrete examples of change adopted in the past, Case-based Reasoning can exploited, to retrieve adaptation cases, and to support the user in the overall adaptation task. Additionally, when adaptations take place, quality evaluation is needed; indeed, compliance of the new version of the process with respect to specific semantic constraints can again be verified (on line or post mortem). As a final example, data mining techniques can be resorted to when the default process schema is not known, but has to be learnt from a set of available execution traces. Such methodologies have proved to be helpful in a wide range of application domains, from industrial to medical ones.

The workshop collects methodological and application papers on the topic, addressing research on process modeling, verification, process adaptation, process mining.

The final goal is the one of serving as a means for exchanging novel as well as more consolidated ideas and examples in the field, and to identify promising research lines and challenges for the future.