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A Conformance Checking-based Approach for Sudden Drift Detection in Business Processes (Summary)*

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Summary of the Contribution

Real life business processes change over time, in both planned and unexpected ways. The detection of these changes is crucial for organizations to ensure that the expected and the real behavior are as similar as possible. These changes over time are called concept drifts and its detection is a big challenge in process mining since the inherent complexity of the data makes difficult distinguishing between a change and an anomalous execution. In this paper, we present *C2D2* (Conformance Checking-based Drift Detection), a new approach to detect sudden control-flow changes in the process models from event traces. *C2D2* combines discovery techniques with conformance checking methods to perform an offline detection. Our approach has been validated with a synthetic benchmarking dataset formed by 68 logs, showing an improvement in the accuracy while maintaining a very low delay in the drift detection.

Keywords: Business Processes · Concept drift · Process mining · Conformance checking-based detection

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