### **Business Processes**

A Database Perspective

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Daniel Deutch and Tova Milo

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### A Database Perspective

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SYNTHESIS LECTURES ON DATA MANAGEMENT #27

#### **ABSTRACT**

While classic data management focuses on the data itself, research on Business Processes also considers the *context* in which this data is generated and manipulated, namely the processes, users, and goals that this data serves. This provides the analysts a better perspective of the organizational needs centered around the data. As such, this research is of fundamental importance.

Much of the success of database systems in the last decade is due to the beauty and elegance of the relational model and its declarative query languages, combined with a rich spectrum of underlying evaluation and optimization techniques, and efficient implementations. Much like the case for traditional database research, elegant modeling and rich underlying technology are likely to be highly beneficiary for the Business Process owners and their users; both can benefit from easy formulation and analysis of the processes. While there have been many important advances in this research in recent years, there is still much to be desired: specifically, there have been many works that focus on the processes behavior (flow), and many that focus on its data, but only very few works have dealt with both the state-of-the-art in a database approach to Business Process modeling and analysis, the progress towards a holistic flow-and-data framework for these tasks, and highlight the current gaps and research directions.

#### **KEYWORDS**

business processes, data models, query languages, process analysis

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