

Contents

1	Introduction	5
1.1	The KDD Process	5
2	State of Art	6
2.1	Research Topics in Data Mining	7
2.1.1	Theoretical Models for Data Mining	7
2.1.2	Standardization Initiatives	8
2.2	Languages for Data Mining	8
2.2.1	Relational-Based Approaches	8
2.2.2	Logic-Based Approaches	9
2.2.3	XML-Based Approaches	9
2.2.4	Spatial Data Mining Languages	10
3	Motivation and Goals of the Thesis	10
4	Data Preparation: The Theoretical Framework	12
5	Data Mining Specification Language	17
5.1	Why XML?	17
5.2	General Structure of DMSL	18
6	Summary of Contributions	18
7	Conclusion	22
	Author's Curriculum Vitae	27