METADATA

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Abstract

This textbook covers the teaching needs of undergraduate students focusing on Information Science and aims to provide a comprehensive map of information semantics. For this reason, emphasis has been placed on three areas. The first area, the Introduction, describes the concept of information and the methodological approach to its processing, i.e., the syntactic and statistical approaches, while Chapter 1 develops the current practices for its retrieval. The second area, Chapter 2, provides an extensive overview of the syntactic processing of information, with a particular focus on information technologies such as metadata schemas, inference engines, search engines using semantic languages, and the fundamental development of reasoning and inference engines. Also Chapter 4 presents the concept of ontology in detail, as well as ontology description languages. In the third area, Chapter 3 develops computational and quantitative linguistics, which a priori solve linguistic interoperability problems in information processing methodologies. Finally, in the third area, Chapters 5 and 6 develop representative classification methodologies for information using a statistical approach, followed by the corresponding applications.