



## METADATA

**Title:** Basic Principles and Technologies in Information Science

**Other Titles:** Information Representation, Storage, Processing, Transmission and View

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**Subject:** MATHEMATICS AND COMPUTER SCIENCE, NATURAL SCIENCES AND AGRICULTURAL SCIENCES, ENGINEERING AND TECHNOLOGY, LAW AND SOCIAL SCIENCES

**Keywords:** Information science / Computer architecture / Knowledge hierarchy / Data structures / Information representation

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### Abstract

The book includes Introduction to Information and Information Organizations, Information representation, Architecture of Computers, Data structures, Basic principles of Programming, Databases, Telecommunications, Computer Networks, Internet and web services and applications, Web languages, Metadata, Integrated Information Systems for Libraries, Information portals, Semantic structures, Semantic Web and Ontologies. The section of Databases includes data models focused on E-R and relational models, Transition from

E-R to relational model, Normalization, Normal Forms, Standard Query Language (SQL), Object Oriented Approach to Databases. The section of Metadata includes URI, URL, UNIMARC, MARC21, Dublin Core (DC), Qualified Dublin, Core (QDC), Encoded Archival Description (EAD), Standards for Metadata Interchange Z39.50 and Open Archives Initiative-Protocol for Metadata Harvesting (OAI-PMH), Resource Description Format (RDF), RDF Schema. The section of Ontologies includes automatic reasoning and SPARQL query language.

