1. Record Nr.    UNINA9910254981803321

Autore    Batini Carlo

Titolo    Data and Information Quality : Dimensions, Principles and Techniques / / by Carlo Batini, Monica Scannapieco

Pubbl/distr/stampa    Cham : , : Springer International Publishing : , : Imprint : Springer, , 2016

ISBN    3-319-24106-0

Edizione    [1st ed. 2016.]

Descrizione fisica    1 online resource (519 p.)

Collana    Data-Centric Systems and Applications, , 2197-9723

Disciplina    004

Soggetti    Database management
Data structures (Computer science)
Application software
Health informatics
Knowledge management
Database Management
Data Structures and Information Theory
Information Systems Applications (incl. Internet)
Health Informatics
Knowledge Management

Lingua di pubblicazione    Inglese

Formato    Materiale a stampa

Livello bibliografico    Monografia

Note generali    Description based upon print version of record.

Nota di bibliografia    Includes bibliographical references and index.

Nota di contenuto    Introduction to Information Quality -- Data Quality Dimensions -- Information Quality Dimensions for Maps and Texts -- Data Quality Issues in Linked open data -- Quality Of Images -- Models for Information Quality -- Activities for Information Quality -- Object Identification -- Recent Advances in Object Identification -- Data Quality Issues in Data Integration Systems -- Information Quality in Use -- Methodologies for Information Quality Assessment and Improvement -- Information Quality in Healthcare -- Quality of Web Data and Quality of Big Data: Open Problems -- References -- Index.

Sommario/riassunto    This book provides a systematic and comparative description of the vast number of research issues related to the quality of data and information. It does so by delivering a sound, integrated and

comprehensive overview of the state of the art and future development of data and information quality in databases and information systems. To this end, it presents an extensive description of the techniques that constitute the core of data and information quality research, including record linkage (also called object identification), data integration, error localization and correction, and examines the related techniques in a comprehensive and original methodological framework. Quality dimension definitions and adopted models are also analyzed in detail, and differences between the proposed solutions are highlighted and discussed. Furthermore, while systematically describing data and information quality as an autonomous research area, paradigms and influences deriving from other areas, such as probability theory, statistical data analysis, data mining, knowledge representation, and machine learning are also included. Last not least, the book also highlights very practical solutions, such as methodologies, benchmarks for the most effective techniques, case studies, and examples. The book has been written primarily for researchers in the fields of databases and information management or in natural sciences who are inte rested in investigating properties ofdata and information that have an impact on the quality of experiments, processes and on real life. The material presented is also sufficiently self-contained for masters or PhD-level courses, and it covers all the fundamentals and topics without the need for other textbooks. Data and information system administrators and practitioners, who deal with systems exposed to data-quality issues and as a result need a systematization of the field and practical methods in the area, will also benefit from the combination of concrete practical approaches with sound theoretical formalisms.