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Titolo	Handbook of Big Data Technologies / / Albert Y. Zomaya, Sherif Sakr
Pubbl/distr/stampa	Cham, Switzerland : , : Springer International Publishing, , 2017
Edizione	[First edition.]
Descrizione fisica	1 online resource (XIII, 895 pages, 307 illustrations)
Disciplina	004.6
Soggetti	Database management - Handbooks, manuals, etc
	Big data - Handbooks, manuals, etc
	Computer organization
	Data structures (Computer science)
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Big Data Storage Models -- Big Data Programming Models -- Programming Platforms for Big Data Analysis -- Big Data Analysis on Clouds -- Data Organization and Curation in Big Data -- Big Data Query Engines -- Unbounded Data Processing -- Semantic Data Integration -- Linked Data Management -- Non-native RDF Storage Engines -- Exploratory Ad-hoc Analysis for Big Data -- Pattern Matching over Linked Data Streams -- Searching the Big Data Practices and Experiences in Efficiently Querying Knowledge Bases -- Management and Analysis of Big Graph Data -- Similarity Search in Large-Scale Graph Databases -- Big Graphs Querying, Mining, and Beyond -- Link and Graph Mining in the Big Data Era -- Granular Social Network Model and Applications -- Big Data, IoT and Semantics -- SCADA Systems in the Cloud -- Quantitative Data Analysis in Finance -- Emerging Cost Effective Big Data Architectures -- Bringing High Performance Computing to Big Data -- Cognitive Computing where Big Data is Driving -- Privacy-Preserving Record Linkage for Big Data.
Sommario/riassunto	This handbook offers comprehensive coverage of recent advancements in Big Data technologies and related paradigms. Chapters are authored by international leading experts in the field, and have been reviewed and revised for maximum reader value. The volume consists of twenty-five chapters organized into four main parts. Part one covers the

fundamental concepts of Big Data technologies including data curation mechanisms, data models, storage models, programming models and programming platforms. It also dives into the details of implementing Big SQL query engines and big stream processing systems. Part Two focuses on the semantic aspects of Big Data management including data integration and exploratory ad hoc analysis in addition to structured querying and pattern matching techniques. Part Three presents a comprehensive overview of large scale graph processing. It covers the most recent research in large scale graph processing platforms, introducing several scalable graph querying and mining mechanisms in domains such as social networks. Part Four details novel applications that have been made possible by the rapid emergence of Big Data technologies such as Internet-of-Things (IOT), Cognitive Computing and SCADA Systems. All parts of the book discuss open research problems, including potential opportunities, that have arisen from the rapid progress of Big Data technologies and the associated increasing requirements of application domains. Designed for researchers, IT professionals and graduate students, this book is a timely contribution to the growing Big Data field. Big Data has been recognized as one of leading emerging technologies that will have a major contribution and impact on the various fields of science and varies aspect of the human society over the coming decades. Therefore, the content in this book will be an essential tool to help readers understand the development and future of the field.