

# Preface

The usage of mobile devices steadily grows causing an enormous rise in the mobile data traffic over the Internet. Data is produced by handheld, pervasive and wearable devices, which are configured for collecting and delivering data to related servers that host online and mobile social networks. Notwithstanding, the enormous amount, multi-source collection of data motivates the need to investigate novel access methods, mobile big data collecting techniques, methods to improve the integration of resources' availability through the 3As ('Anywhere, Anything, Anytime') paradigm, distributed big data storing methodologies, and intra- or inter-big data processing mechanisms.

The main target of this book is to give an overview of the great emerging advances and challenges in mobile technologies for collecting, storing and processing mobile big data from an engineering perspective, discussing a wide range of applications and scenarios where mobile big data can be applied. Future directions on theories, practices, standards and strategies that are related to this research domain are discussed. This timely volume includes thirteen rigorously refereed chapters from prominent international researchers and serves as a source of new schemes in the mobile big data field for students, researchers, scientists and practitioners. It may be used in undergraduate and graduate courses on the design and development of mobile big data-driven systems and applications. Researchers and scientists will find the book useful as it provides a current state-of-the-art guide and future trends in mobile big data analytics and management. Finally, practitioners will broaden their expertise on particular topics and methodologies, such as the transition of mobile big data to the Cloud, context-awareness in the mobile big data paradigm and the processing of real-time streaming events on-the-move considering the need for high-velocity processing and low latency response.

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A Roadmap from Models to Technologies

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