Preface

This book is the first monograph on Wisdom Web of Things (W2T) coherently written by multi-authors. The book contains 15 chapters structured into four parts: W2T foundation, W2T and humanity, W2T technologies, and future vision of W2T. The book has presented the recent study on the framework and methodology of W2T, as well as applications of W2T in different problem domains such as intelligent businesses, brain informatics, and healthcare. Aiming at promoting people's understanding of W2T and facilitating the related research including the holistic, intelligent methodology, the book has addressed emerging issues such as: "*What are fundamental issues and challenges in W2T?*", "*Where are the solutions lying on?*", and "*What are potential applications*?"

We would like to specifically dedicate this book to the celebration of the 60th anniversary of Artificial Intelligence (AI). Aiming at creating computers and computer software capacity of intelligent behavior, throughout the sixty years of journey many amazing achievements have been made, including the recent AlphaGo, an intelligent computer program that beat Lee Sedol, a 9-dan professional player in a five-game match of Go. Such a task was considered an impossible mission if looking back in just a decade ago. Web Intelligence (WI) has extended and made use of Artificial Intelligence for new products, services, and frameworks that are empowered by the World Wide Web. Wisdom Web of Things is then born as an extension of the Web Intelligence research in the IoT/WoT (Internet of Things/Web of Things) era. The book is recommended by the Web Intelligence Consortium (WIC, www.wi-consortium.org) as a consecutive book to the Web Intelligence monograph published by Springer in spring 2003. The WIC was formed in spring 2002 as an international, nonprofit organization endeavoring to advance worldwide scientific research and industrial development in the field of Web Intelligence. The scope of its activities covers encouraging deep collaborations among the WIC research centers around the world, supporting organizational and individual members, steering advanced research and technology showcases at the international IEEE/WIC/ACM conferences and workshops, and producing official publications. The book is a collaborative effort involving many leading researchers and practitioners in the field of WI who have contributed chapters on their areas of

expertise. We wish to express our gratitude to all authors and reviewers for their contributions.

We are very grateful to people who joined or supported the W2T-related research activities, in particular, the WIC Advisory Board members, Edward Feigenbaum, Setsuo Ohsuga, Joseph Sifakis, Andrzej Skowron, Benjamin Wah, Philip Yu, and all the WIC Technical Committee members. We thank them for their strong and constant support—without such, this book is impossible.

Last, but not least, we thank Jennifer Malat of Springer US and Yanchun Zhang for their helps in coordinating the publication of this monograph and editorial assistance.

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