

EDITORIAL PREFACE

Service Trustworthiness, Accountability and Testing

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This special issue of the International Journal of Web Services research (IJWSR) collects four papers related to Service Trustworthiness, Accountability and Testing. They are all extended versions from papers published IEEE International Conference on Web Services (ICWS) and IEEE International Conference on Services Computing (SCC).

The first paper is titled *Connecting the Average and the Non-Average: A Study of the Rates of Fault Detection in Testing WS-BPEL Services*. Jia, Mei, Chan, Yu, and Tse examine test case prioritization for WS-BPEL applications in both the average scenarios and adverse scenarios. They observe a strong linear correlation between the effectiveness in the average and adverse scenarios.

The second paper is titled *A Trust-Powered Technique to Facilitate Scientific Tool Discovery and Recommendation*. Zhang, Lee, Votava, Lee, Wang, Sriram, Saini, Rao, and Nemani propose to leverage human trust to facilitate software service selection and recommendation. They build a trust model that leverages

the implicit human factor to help quantify the trustworthiness of candidate services. The performance factor is studied and experience is reported based on their prototyping system.

The third paper is titled *Modeling Accountable Cloud Services Based on Dynamic Logic for Accountability*. Zou, Wang, and Orgun create a new form of process algebra called Accountable Process Algebra (APA) to tackle the issue of unmanaged accountability of cloud computing services. They also propose an Obligation Flow Diagram (OFD) for conflict resolution and model verification.

The fourth paper is titled *A Practical Approach towards Automatic Testing of Web Services Interoperability*. Elia, Laranjeiro, and Vieira propose a practical testing process to examine interoperability of web services. Empirical studies are reported.

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Liang-Jie (LJ) Zhang is Senior Vice President, Chief Scientist, & Director of Research at Kingdee International Software Group Company Limited, and director of The Open Group. Prior to joining Kingdee, he was a Research Staff Member at IBM Thomas J. Watson Research Center. Dr. Zhang has published more than 140 technical papers in journals, book chapters, and conference proceedings. He has 40 granted patents and more than 20 pending patent applications. Dr. Zhang received his Ph.D. on Pattern Recognition and Intelligent Control from Tsinghua University in 1996. He chaired the IEEE Computer Society's Technical Committee on Services Computing from 2003 to 2011. He also chaired the Services Computing Professional Interest Community at IBM Research from 2004 to 2006. Dr. Zhang has served as the Editor-in-Chief of the International Journal of Web Services Research since 2003 and is the founding Editor-in-Chief of IEEE Transactions on Services Computing. He was elected as an IEEE Fellow in 2011, and in the same year won the Technical Achievement Award "for pioneering contributions to Application Design Techniques in Services Computing" from IEEE Computer Society. Dr. Zhang also chaired the 2013 IEEE 2nd International Congress on Big Data (BigData 2013), and the 2009 IEEE International Conference on Cloud Computing (CLOUD 2009).