
Editorial

Ting He*

College of Computer Science and Technology,
Huaqiao University,
No. 668, Jimei Avenue, Jimei District,
Xiamen, Fujian Province, 361021, China
Email: heting@hqu.edu.cn
*Corresponding author

Weiping Li

School of Software and Microelectronics,
Peking University,
No. 5, Yiheyuan Road,
Haidian District, Beijing, 100086, China
Email: wpli@ss.pku.edu.cn

Lei Wang

Suzhou Institute of Biomedical Engineering and Technology,
Chinese Academy of Sciences,
No. 88, Keling Road, Suzhou New District,
Jiangsu Province, 215163, China
Email: wanglei@sibet.ac.cn

Biographical notes: Ting He is currently a PhD Supervisor and a Professor of the College of Computer Science and Technology of Huaqiao University. He received his PhD in Mechatronic Engineering from the Harbin Institute of Technology in 2000. His research interests include intelligent computing and services, business process mining and business intelligence.

Weiping Li received his PhD from the Shenyang Institute of Automation, Chinese Academy of Sciences in 2002. From 2002 to 2004, he worked at the National CIMS Research Center in Tsinghua University. He joined Peking University in 2004, and currently leads the service computing research team. His research interests include software engineering, service computing, context-aware services, and big data. He has conducted some research projects funded by the Chinese Government, the Danish Government as well as the industry.

Lei Wang is an Associate Professor at Suzhou Institute of Biomedical Engineering and Technology, Chinese Academy of Sciences, and Master's tutor at University of Science and Technology of China. His research interests include medical decision support system for healthcare, optimisation algorithm and collaborative decision-making technology based on big data analysis, and software development technology of biomedical information management system. In recent years, he has presided over a number of scientific research projects, published more than 20 papers and obtained more than 30 patents.

Service computing originates from the Web Service and the representational state transfer (REST) technologies. It can facilitate the service oriented application system development and system integration. Service computing embraced the first wave when service oriented architecture (SOA) occurred in 2005. Cloud computing provides an underlying technology for deploying massive services in the form of either web services, REST services, or even the micro services. Currently there are more and more services deployed on the internet and the cloud. For instance, there are 18,788 services deployed on programmable web. The massive services bring out a critical problem, i.e., the system developer want to find the desired service in an efficient and effective way. Service discovery is to find a usable requisite service (web services, REST, and micro services) for Service compositions. In the era of big data, there are huge volume of data created daily in the internet-based enterprises from the customers, business process, internet of things, and the social network. These arise another challenge for service, how to utilise the big data to provide big service for the internet-based enterprises. The software services involved in processing big data have dramatically increased in both number and complexity. All these services from multi-domains and multi-networks are convergent, interrelated, and interoperated as a huge complicated service network. This service ecosystem can be called as big service, which is a massive, complicated series of services dealing with big data, which can be considered as a correlative complicated business in the networked virtual and real worlds. Though lots of research work on service discovery and service composition are conducted in the past ten years, it is still a real headache for the developers. For the big data and big service application in the internet-based enterprises it is even harder.

This special issue aims at putting together the new achievement and developments in this field. There are 14 papers in this special issue, which have been organised into three thematic groups. The first group of four papers contributes on the big service discovery and recommendation. The second group of four papers focus on the service composition and service capability. The last group of six papers addresses the big data and big service application on manufacturing service and elderly service for internet-based enterprises.

Acknowledgements

The guest editors would like to thank the authors of all submitted papers for considering this special issue to disseminate their work and all the reviewers for their conscientious work. We also would like to thank all the members of program committee and the steering committee of the International Conference on Service Science, 2017 (ICSS 2017), who helped to recommend the high-quality papers to this special issue.