



EDITORIAL

A Foreword from the Editor-in-Chief

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Over the past decades, Internet has gone beyond information sharing and communication, and become a platform for service reuse and service integration. Computing reuse based on abstraction and divide-and-conquer is at core of computer science and IT industry over the past decades, and the computing reuse granularity has grown from functions/methods to objects, reusable software components, and distributed cloud services. The maturity of container and microservice technologies makes both software system development and deployment truly distributed and reusable. The advancement in speed and security has now also enabled Internet to become an enterprise service integration platform that promote service reuse and management to an even higher level. “Internet +” is one of the layman’s terms to emphasize the new prominent function of Internet in local / regional / national / international scope enterprise service integration and reuse.

The second most distinguished feature of today’s computing industry is the development and important role of intelligent systems. AI and machine learning, in particular Deep Learning, is transforming many technological and

business processes to optimize system performance. But machine learning works mainly by extracting experience from big data. While it can optimize system performance in various application domains, we cannot explain why a particular set of parameter values lead to good system performance, and slight environment change may make the optimized system useless. The future intelligent systems must be based on knowledge empowered systems. While ontology based OWL (Web Ontology Language) is the current industry standard for knowledge representation, we have proven that OWL need be extended to knowledge graphs by supporting domain-specific relations to empower true intelligent systems.

This issue includes three articles related to the themes above: the evaluation of an innovative network protocol for Internet-scoped system integration, a case-study of implementing Internet-based system integration in a sample industry, and how to let computer identify relations among entities in natural language and measure similarity among natural language sentences. We hope they will lead to more paper contributions in these and similar important computing research areas.

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