

---

## Editorial

---

### Jason J. Jung

Department of Computer Engineering,  
Yeungnam University,  
Dae-Dong, Gyeongsan, 712-749 Korea  
E-mail: j2jung@intelligent.pe.kr  
E-mail: j2jung@gmail.com

### Krzysztof Juszczyszyn

Institute of Information Science and Engineering,  
Wroclaw University of Technology,  
Wyb. Wyspianskiego 27 50-370 Wroclaw, Poland  
E-mail: krzysztof@pwr.wroc.pl

**Biographical notes:** Jason J. Jung is a Research Professor at Inha University, Korea. He was a postdoctoral researcher at INRIA Rhone-Alpes, France, in 2005–2006, and a Visiting Scientist at the Fraunhofer Institute (FIRST) in Berlin, Germany, in 2004. He received a BS in Computer Science and Mechanical Engineering from Inha University in 1999. He received his MS and PhD in Computer and Information Engineering from Inha University in 2002 and 2005, respectively. His research topics are knowledge engineering on social networks by using machine learning, semantic web mining and ambient intelligence.

Krzysztof Juszczyszyn works as an Assistant Professor at Wroclaw University of Technology, Poland. He also received his MS and PhD in Computer Science from this University in 1997 and 2001, respectively. He participated in a regional programme for visiting researchers at Murcia University, Spain, in 2006. His research concentrates on dynamic network models applied to social networks, semantic web and multi-agent systems.

---

Knowledge is a key element to make collaborations in virtual environments like WWW. With recent emergence of semantic web technologies, the knowledge has been *flowable* on open network. It means that people can exchange a variety of types of knowledge and manipulate them together, for better performance of their tasks.

However, there are still some problems, e.g., reliable interoperability and knowledge transformation. Moreover, spontaneous formation of social structures on the basis of Web environment pushes forward the limits of knowledge management. Information flows along certain pathways in organisations and Social Network Analysis (SNA) can be used to discover and analyse the patterns of relationships that exist in communities which leads to many applications in knowledge management field. From the other hand we observe a strong research effort in area of ontology development, matching and evolution which are crucial tasks in providing interoperability in open systems.

In this special issue of IJHDS, we focus on

- how to efficiently support interactions between participants in dynamic and emergent network structures
- how to analyse semantic social network in which resources are annotated local (more specifically, personal) ontologies.

Thereby, we collect four excellent papers attacking the problems in this issues. Kazienko and Musial have shown an approach to capture hidden patterns from a social network. Mainly, by employing human filtering scheme, they have tried to organise meaningful human communities.

In second paper, Jung et al. are focusing on semantically multiplex social networks. Compared to the first paper, main motivations is that social connections between people are semantically heterogeneous. They exploit divide-and-conquer paradigm to measure the semantic centrality on that type of social networks.

As another interesting study, Cho et al. proposes a novel reputation framework to deal with the lack and trust of explicit rating information on B2C environment. This framework can apply implicit rating to the mechanism based on the source credibility model in consumer psychology.

Finally, Wu proposes metadata management for enterprise integration. Moreover, he has shown a case study in financial industry.