SCIENCE CHINA
Information Sciences

• EDITORIAL •

November 2017, Vol. 60 110100:1–110100:2
doi: 10.1007/s11432-017-9251-5

# Special Focus on Natural Language Processing and Social Computing*

Natural language processing (NLP) and social network analysis (SNA) technologies are among the most active research and development areas due to rapid advancement of the Internet as well as the worldwide proliferation of social media. We are living in an increasingly networked world. People, information and other entities are connected via World Wide Web, email networks, instant messaging networks, mobile communication networks, online social networks, etc. These online networks grow fast and possess huge amount of recorded information, which presents great opportunities in understanding the science of these networks, and in developing new applications for these networks. However, new challenges have to be met — the networks are huge and information is noisy, and they demand new methodologies in analyzing these networks, and in developing theories and applications for the big networked data.

This special focus is devoted to provide a forum for presenting the most recent advances in natural language processing and data mining, in particular on social media data. We have accepted four contributed papers with novel results and techniques, listed as follows:

"Encoding syntactic representations with a neural network for sentiment collocation extraction" proposed to extract sentiment collocation of a target word and a polarity word with a novel neural network encoding syntactic representations, which can effectively capture the latent semantics behind the syntactic paths.

"Convolutional neural networks for expert recommendation in community question answering" addressed the important task of expert recommendation in community question answering, and proposed convolutional neural networks to match a new-proposed question with those appropriate experts. So that it will promote the whole QA community in general.

"Topic enhanced deep structured semantic models for knowledge base question answering" focused on knowledge base question answering, and proposed a novel neural model. This model first extracts topic entities in questions and retrieves the most relevant candidate triples, and then employs deep structured semantic models to compute the similarity between the questions and the predicates in those candidates.

"Integrating a weighted-average method into the random walk framework to generate individual friend recommendations" attacked the task of friend recommendation in social networks, and designed a novel random walk framework integrating user behavior factors such as interactions, interests, activities with weighted average method.

Finally, we would like to express the great appreciation to all the authors who submitted their manuscripts to our special focus section. We want to express our sincere gratitude to all the review-

*Citation Tang J, Tong H H, Vazirgiannis M. Special focus on natural language processing and social computing. Sci China Inf Sci, 2017, 60(11): 110100, doi: 10.1007/s11432-017-9251-5

 

ers for their insightful and timely review comments. We also thank the Editorial Office of *SCIENCE CHINA Information Sciences* for their professional services and supports during the whole process of this special focus.

Guest Editors:
Jie TANG
*Tsinghua University, China*
Hanghang TONG
*Arizona State University, USA*
Michalis VAZIRGIANNIS
*Ecole Polytechnique, France*