

Editorial

Advance in Safe and Useful Social Network Services with Context-Sensitive Data in Cyber-Physical System

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With the popularity of smart devices and sensors, people have to face the choice between safety and usefulness whenever using social network services (SNS), especially if they handle context-sensitive data. The choice is not limited to those SNS, but it may be applied to any other information systems which keep track of people's context-sensitive data. This special issue compiles 13 exciting papers, which are very carefully and meticulously reviewed by experts who have been studying this issue. Those papers cover four areas: privacy and security, collaboration, detection, and other advanced technologies for context-sensitive systems.

The privacy and security in SNS is addressed in five papers. H. Ko et al. propose an encryption algorithm for the context data in smart cities. E. K. Wang et al. introduce a way to protect the location privacy effectively for continuous query. S.-H. Chae et al. introduce the minutiae-ridge based fingerprint verification for enhancing the security of fingerprint verification in smartphones. D. Li and J. W. Kim explore a robust and secure forensic marking algorithm through the process of hiding information in a 2D barcode and into the discrete wavelet transformation-discrete fractional random transformation domain using the quantization technique. S.-W. Jang et al. explore a method of effectively detecting and classifying network traffic attacks by visualizing their IP addresses and ports and clustering the visualized ports based on their variance.

Collective intelligence and collaboration are very important topics in social networks. Three of the papers deal with collaboration in SNS. X. An et al. propose a model for coauthor relationship to identify people with similar interests in SNS. H. Han et al. propose a method of uncovering research topics in scientific collaboration network with *k-clique-community* algorithm. S. Xu et al. explore how to discover dynamic users' interest using distributed inference algorithms.

Two papers deal with detection of objects. P.-T. Ho and S.-R. Kim introduce a similarity-based method for detecting duplicate documents. S.-I. Joo et al. suggest a method for detecting harmful images using an active shape model (ASM) in SNS.

The last topic is about various technologies that are related to context-sensitive systems. There are three papers on this topic. D. M. Lee et al. explore an algorithm for localizing sound sources in underground parking lots. The algorithm can be applied to applications requiring identifying sound sources. J.-S. Choi et al. review middleware architecture for intelligent services from robots. Y. Song and H. Kim propose a method for automatic word spacing in short text messages used to control appliances in smart home.

By compiling these papers, along with various topics such as context-sensitive data, security, and social network services, we hope to enrich our readers and researchers with

respect to the most interesting field of research that is fruitful in both academic society and industrial society.

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