

Call for papers

ACM Transactions on Intelligent Systems and Technology (ACM TIST)

Special Issue on

Participatory Sensing and Crowd Intelligence (PS/CI)

Introduction

Participatory Sensing (PS) is an emerging computing paradigm that tasks everyday mobile devices to form participatory sensor networks. It allows the increasing number of mobile phone users to share local knowledge acquired by their sensor-enhanced devices, e.g., to monitor pollution level or noise level, traffic condition, etc. Here, we make an extension to the original definition of sensing sources in participatory sensing, from mobile devices to any human life-loggers, such as sensor-equipped vehicles, smart cards, social network services (the so-called *virtual sensors*), and so on. The sensing data from volunteer contributors can be further analyzed and processed to form **Crowd Intelligence (CI)**, and leveraged in many areas such as environment monitoring, urban planning, emergency management, as well as public healthcare/safety. Numerous challenges are raised: How can people and devices be connected so that they act more intelligently than any individuals or devices have ever done before? How to accomplish the tasks unintentionally or with minimum user effort? How to extract crowd intelligence/knowledge from multimodal, low quality data contributed by volunteers? What are the incentive mechanisms to encourage human participation? How to protect human data privacy...

This theme issue of ACM TIST (indexed by SCI-E and EI) provides the opportunity for researchers and product developers to review and discuss the state-of-the-art and trends of PS/CI techniques and intelligent systems.

Topics may include (but are not limited to):

- AI techniques in PS/CI
- Crowd Data Collection and Intelligent Task Allocation
- Incentive Mechanisms for Human Participation
- Data Processing and Crowd Intelligence Mining
- Data Quality, Trust, and Privacy
- Knowledge Modeling and Management in PS/CI
- Intelligent applications supported by PS/CI (Smart City, Public Health, etc.)
- Crowd Intelligence Systems
- Intelligent User Interfaces for PS/CI
- Evaluation Metrics and Empirical Studies of PS/CI

It should be noted that we welcome papers that are relevant to the above topics, but discourage papers that make contributions to only networking/sensor issues but do not contribute to [topics of interest to TIST](#) (e.g., topics on AI, intelligent systems).

Submissions

Manuscripts should be submitted online: <http://mc.manuscriptcentral.com/tist> (please select "Special Issue: Participatory Sensing and Crowd Intelligence" as the manuscript type). Details of the journal and manuscript preparation are available on the website: <http://tist.acm.org/authors.html>.

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Important Dates

Deadline for manuscript submission: Dec. 31, 2013.

Notification of first review: Feb. 28, 2014

Submission of revised manuscript: Apr. 15, 2014

Notification of final acceptance: May. 31, 2014

Final manuscript due: Jun. 30, 2014

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