



Call for Papers

Special Section on

Learning and Mining in Dynamic Environments

Journal of Computer Science and Technology (JCST)

Aims and Scope

As an important branch of Artificial Intelligence, both machine learning and data mining hope to extract knowledge from data/observation/historical experience to help solve real-world decision-making problems. Current machine learning and data mining technologies usually work in static environments, for example, data is pre-defined, high-quality, with a relatively fixed distribution or pattern. However, real tasks usually face dynamic environments. For instance, the spatial-temporal context changes in mobile environment, the network structure often evolves over time in social environment, and the distribution of customers changes in online recommender systems. In this environment, data will continue to change, the quality of data is low, and there is no fixed distribution or pattern, which bring a lot of challenges.

To this end, we need to study learning and mining technologies that can cope with dynamic environments, including: 1) learning with dynamic data distributions, such as few-shot learning, weakly supervised learning, online learning, reinforcement learning, robust learning, transfer learning, 2) mining from a variety of data, like semi-structured data, unstructured data and streaming data, 3) knowledge engineering with big data, such as knowledge extraction, knowledge representation and reasoning, and 4) intelligent (like context-aware, adaptive, and transferable) services in dynamic application domains, such as e-commerce, education, and healthcare.

This special section of JCST journal papers will focus on technologies and solutions related, but not limited to:

- ✧ Machine learning and statistical methods for dynamic data science and engineering, including weakly-supervised learning, reinforcement learning, active learning, transfer learning, online learning, etc.
- ✧ Specific data processing and mining, including multilingual text, sequential/streaming and spatio-temporal data, heterogeneous data, graph and social media data, etc.
- ✧ Knowledge engineering with big data and knowledge integration from multi-modal environment, including data linkage and fusion, data privacy and security, knowledge extraction, knowledge representation and reasoning, etc.

Besides original research papers, we also strongly encourage high-quality survey papers, systems papers, and applications papers.

Schedule

Submission due: August 20, 2019

First Revision/Reject Notification: October 9, 2019

Final decision: December 15, 2019

Camera-Ready: December 25, 2019

Expected Publication: March 2020

Submission Procedure

All submissions must be done electronically through JCST's e-submission system at: <https://mc03.manuscriptcentral.com/jcst> with a manuscript type: "Special Section on Learning and Mining in Dynamic Environments".

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