Personal and Ubiquitous Computing
https://www.springer.com/779

Editor-in-Chief: Peter Thomas

Call for Papers

Theme Issue on
Ubiquitous Data Science

Guest Editors

Francesco Piccialli (lead guest editor), University of Naples Federico II, Italy, francesco.piccialli@unina.it
Nik Bessis, Edge Hill University, UK nik.Bessis@edgehill.ac.uk
Gwanggil Jeon, Incheon National University, Seoul, South Korea, gjeon@inu.ac.kr

In the recent years, there has been exponential growth in researchers' use of the term "data science" to describe the interdisciplinary field of collecting, drawing inference from, and acting on data. It is evident that, Ubiquitous Computing plays a crucial role in the Data Science realm since
its main objective is to make devices "smart," thus creating a sensor network capable of collecting, processing and sending data, and, ultimately, communicating as a means to adapt to the data's context and activity; in essence, a network that can understand its surroundings and improve the human experience and quality of life.

In this perspective, Ubiquitous Data Science can be defined as new research area that exists at the intersection of Ubiquitous Computing and Data Science.

Example of topics that we can view as part of the Ubiquitous Data Science include new IoT sensor networks, new architecture for data processing, algorithms for processing ubiquitous sensor data, new techniques for data visualization in ubiquitous environments.

These topics highlight the inherently multidisciplinary nature of the field of Ubiquitous Data Science. Furthermore, Ubiquitous Data Science plays an important role in our everyday lives, since several applications areas can benefit from data-driven ubiquitous applications (Autonomous Vehicles, Augmented Cognition, Smart Spaces, etc.).

Topics

The aim of this theme issue is to explore the state-of-the-art and new technologies, methodologies and applications related to all aspects of Ubiquitous Data Science. Ubiquitous Computing brings new challenges to conventional Data Science tools by virtue of both the scale at which it operates and its focus on the relationship between technology and users.

Review or summary articles — for example a critical evaluation of the state of the art, or an insightful analysis of established and upcoming
technologies — may be accepted if they demonstrate academic rigor and relevance.
Relevant topics for this theme issue include, but are not limited to, the following:

- Data Stream Processing for Ubiquitous Data Science;
- Query Processing and Data Integration for Ubiquitous Data Science;
- Machine Learning applications in Data Science;

- Distributed Communication Networks and Data Analysis;
- IoT Analytics;
- Distributed Architectures for Efficient Management of Data;
- New Hardware Architectures for Ubiquitous Data Science;
- Applications for Ubiquitous Data Science;
- Algorithms for data processing;
- Data Visualizations techniques for ubiquitous environments;

Tentative Schedule

Manuscript submission deadline:	30th October 2019
First round review notification:	15th December 2019
Revised manuscript submission deadline:	15th January 2020
Expected publication:	late 2020

Submissions

Submissions should be original papers and should not be under consideration in other publications. Extended versions of high quality conference papers that are already published at relevant venues may also be considered as long as the additional contribution is substantial (at least 30% of new content).

Instructions for Authors are available here: https://www.springer.com/computer/hci/journal/779

Authors should visit https://www.editorialmanager.com/pauc for information and to submit an electronic copy of their complete manuscript through the Editorial Manager system ensuring that the paper is identified as being submitted for this theme issue.