



# CALL FOR PAPERS

In the world of the Internet of Things (IoT), the rapid growth and exponential use of digital components lead to the emergence of intelligent environments connected to the web and composed of multiple and independent entities such as individuals, organizations, services, and software and applications sharing one or several missions and focusing on the interactions and interrelationships between them. The application of Information Technologies has the potential to enable the understanding of how entities request resources and ultimately interact to create benefits and added-values, impacting business practices and knowledge. These technologies can be improved through novel techniques, models and methodologies for fields such as big data management, web technologies, networking, security, human-computer interactions, artificial intelligence, e-services, and self-organizing systems to support the establishment of digital ecosystems and manage their resources.

The phenomena of “crowdsourcing” and collective knowledge have emerged where i) the diversity and plenitude of heterogeneous resources (online photos and videos) are currently available on the web and ii) users are acting both as content consumers and as content providers. How can we make the most out of these vast amounts of resources easily searchable by linking them and by creating new information and knowledge? The recent research advances in computer vision society, on one hand, and web semantics and database societies, on the other, have stimulated the development of a series of innovative approaches, algorithms, and tools for visual object and textual concepts/topics detection or extraction, respectively. However, automatic link detecting (to identify an event, entity, etc.) using multicriteria resources is still a complex research field of great attention but with limited results so far.

This special issue on Collective Intelligence within Heterogeneous Digital Contents invites high quality research papers describing researchers' latest results in the challenges of integrating and consuming heterogeneous data, derived from raw data provided online, which is then interlinked and rendered accessible for all. More precisely, we mainly focus in this special issue on identifying (semi)automatic and collaborative methods for interlinking heterogeneous data, for enriching information (in order to come up with a knowledge), for visualizing and exploring data/information and collective knowledge, and for estimating missing (meta)data.

Potential topics include, but are not limited to:

- ▶ Data linking methods
- ▶ Collective knowledge, event, and entity detection
- ▶ Measures (similarity, quality, data fusion, etc.)
- ▶ Semisupervised, learning-based data linking methods
- ▶ Identity representation and semantics
- ▶ Online personal information management
- ▶ Reasoning on links
- ▶ Link propagation
- ▶ Visualization and exploration of Linked Data
- ▶ Provenance and trust models on links
- ▶ Methods for link quality assessment
- ▶ Linking evaluation techniques and tools
- ▶ Marketplaces, aggregators, and indexes for Linked Data
- ▶ Applications (life-sciences, digital humanities, social networks, Internet of Things, etc.)

Authors can submit their manuscripts via the Manuscript Tracking System at <http://mts.hindawi.com/submit/journals/tswj/computer.science/cihdc/>.

**Lead Guest Editor**

Richard Chbeir, Pau University, Pau, France  
[rchbeir@acm.org](mailto:rchbeir@acm.org)

**Guest Editors**

Agma Traina, Sao Paulo University, Sao Paulo, Brazil  
[agma@icmc.usp.br](mailto:agma@icmc.usp.br)

Youakim Badr, INSA de Lyon, Villeurbanne, France  
[youakim.badr@insa-lyon.fr](mailto:youakim.badr@insa-lyon.fr)

Frederic Andres, NII, Tokyo, Japan  
[andres@nii.ac.jp](mailto:andres@nii.ac.jp)

Yannis Manolopoulos, Aristotle University of Thessaloniki, Thessaloniki, Greece  
[manolopo@csd.auth.gr](mailto:manolopo@csd.auth.gr)

**Manuscript Due**

Friday, 25 March 2016

**First Round of Reviews**

Friday, 17 June 2016

**Publication Date**

Friday, 12 August 2016