

Call for Papers

Journal of Universal Computer Science (J.UCS)

Special Issue

New trends in Semantic Web-based applications



Guest Editors

Miguel Ángel Rodríguez-García,
Universidad Rey Juan Carlos, Spain
(miguelangel.rodriquez.garcia@urjc.es)

Rafael Valencia-García, Universidad de
Murcia, Spain (valencia@um.es)

Giner Alor-Hernández, Instituto
Tecnológico de Orizaba, México
(galor@itorizaba.edu.mx)

Description and Scope:

Semantic Web technologies are becoming more relevant to the research community. Such interest has inspired many people to create innovative technologies and applications such as Semantic Searches, Information Integration, Information Interoperability, Bioinformatics, eHealth, eLearning, Software Engineering, eCommerce, eGovernment, Social Networks. In this sense, the application of semantic web has carried out an extensive use of ontologies in such diverse fields. The application of ontologies has supposed an incredible advance in developing techniques to manipulate, share, reuse and integrate information across heterogeneous data sources. In particular, in Big Data to preserve such homogeneous format has become one of the principal problems that these tremendous datasets are facing. To face this difficulty, research areas like Natural Language Processing, Ontology Matching, Ontology Alignment or Ontology population are providing efficient methodologies based on RDF and OWL language technologies to provide standard ways to convert such datasets into Linked Data uniform format. Nowadays, the usage of Linked Data format has been established as a de facto standard; everyone wants to publish their data in such format, Social Networks, Smart cities and Context-aware mobile applications. Thus, according to this demand, the development of certain techniques to enable users to publish, visualize and manipulate their data in an easy way is high-demanded. Also, the standardization of this linked format has completely revolutionized the way of representing and analyzing data demanding new graph-based machine learning and data mining techniques to explore such representation.

On the other hand, with the arrival of ontologies, fundamental questions have emerged about which kind of elements should be defined in an ontology model to specify knowledge and how this knowledge should be represented. In response to these

questions, Ontological Engineering, Knowledge Representation and Reasoning research areas are working intensively to develop generic models which enable systems to employ reasoning techniques to produce knowledge.

Therefore, the main objective of this special issue is to collect and consolidate innovative and high-quality research contributions regarding to semantic Web-based applications applied to different disciplines such as Artificial Intelligence, Database Management, Knowledge Representation and Engineering, Natural Language and Processing, Cloud Computing, Social Web, Web Science, among others. This special issue aims to provide insights on the recent advances in these topics by soliciting original scientific contributions in the form of theoretical foundations, models, experimental research and case studies for developing semantic Web-based applications.

Topics of interest include, but are not restricted to:

- Knowledge Representation and Reasoning
- Knowledge Acquisition
- Ontological Engineering
- Ontology Sharing and Reuse
- Ontology Matching and Alignment
- Ontology Learning and Population
- Semantic Web Semantic Integration of heterogeneous data sources
- Natural Language Processing and Information Retrieval using Semantic technologies
- Social Semantic Web and Web science
- Knowledge-based Decision Support Systems
- Linked Data Applications Industrial Applications and Case-studies
- Context-aware visualization and interaction technique
- Visualizations and user interfaces for ontologies and Linked Data
- Consumption and publication of Linked Data
- Extraction, linking and integration of Linked Data
- Social Networks and Graph Analysis
- Web mining and Web search systems
- Semantic Data Management technologies for Big Data
- Mobile Web, Sensors and Semantic Streams
- Services, APIs, Processes and Cloud Computing
- Smart Cities, Urban and Geospatial Data
- Machine Learning and Data Mining for Web of Data
- Solutions for bridging the gap between Web of Data and the Web of Services

Instructions for authors

Authors should submit their paper via email: miguelangel.rodriquez.garcia@urjc.es, valencia@um.es and galor@itorizaba.edu.mx and the subject of the email should be: "J.UCS SI Submission: Semantic Web". All manuscripts for this special issue should be submitted electronically by December 29th, 2017. Submissions will be reviewed by at least 2 reviewers following a double-blind review process.

Invited authors for extended versions of conference papers must include at least 30-50% additional materials relative to conference papers and the title of the extended version must clearly and unmistakably differ from the title of the paper presented at the conference.

The length of the manuscript may not exceed 20 pages. Authors' papers should accord to the J.UCS Style Guide for Authors which can be found at the following URL:

http://www.jucs.org/ujs/jucs/info/submissions/style_guide.html

Important Dates

Working schedule

- Submission deadline: December 29th, 2017
- Completion of first-round reviews: April 1st, 2018
- Revised papers: May 30th, 2018
- Target of the second (last) round of reviews: August, 15th, 2018
- Publication (tentative): 2018

Guest Editors

Miguel Ángel Rodríguez-García, Universidad Rey Juan Carlos, Spain

(miguelangel.rodriguez.garcia@urjc.es)

Rafael Valencia-García, Universidad de Murcia, Spain (valencia@um.es)

Giner Alor-Hernández, Instituto Tecnológico de Orizaba, México (galor@itorizaba.edu.mx)