Call for Papers:
The AAAI 2014 Workshop on Semantic Cities: Beyond Open Data to Models, Standards and Reasoning
Québec City, Québec, Canada; July 27-31, 2014,
Web Site: http://research.ihost.com/semanticcities14/index.html
Submission Site: https://www.easychair.org/conferences/?conf=semcities14

Description

Cities are realizing that opening access to their many data sources and using semantic models to provide a holistic view of this heterogeneous data can unleash economic growth, optimize their operational and strategic goals while addressing computational sustainability issues. We call the cities committed to a semantic infrastructure as a way to integrate, analyze and standardize access to their open data, "Semantic Cities".

A number of cities (e.g., London, Chicago, Washington D.C., Dublin) have made their data publicly available leveraging the technologies and principles from Open (Linked) Data and the Semantic Web, interconnecting heterogeneous data. These technologies, principles and good practices are maturing and are becoming a perfect playfield for research-grade, scalable and robust AI techniques.

This workshop aims to bring clarity and foster the communication among AI researchers, domain experts and city and local government officials. In that context, we want to:

1. Provide a forum for sharing best-practices and pragmatic concerns among both AI researchers and domain experts.
2. Draw the attention of the AI community to the research challenges and opportunities in semantic cities.
3. Foster the development of standard ontologies for city knowledge.
4. Discuss the multi-disciplinary and synergistic nature of the different sub-domains of semantic cities e.g., transportation, energy, water management, building, infrastructure, healthcare
5. Identify the technical and pragmatic challenges needed to mature the technologies behind Semantic Cities. E.g., since governments and citizens are involved, data security and privacy are key concerns that need to be addressed before others.
6. Elaborate a (semantic data) benchmark for testing AI techniques on semantic cities.

We encourage submissions that show the application of AI technologies to the publication and use of city open data, and how to create a computationally sustainable, economically viable information ecosystems. We want to include work that either discusses the advancement of foundational technologies in Semantic Cities (information and knowledge management, ontologies and inference models, data integration, etc.), or illustrates use cases, or addresses the unique characteristics of standard AI to solve sustainability problems, like optimization, reasoning, planning and learning.
We also encourage submissions from communities engaged in open data and corresponding standardization efforts, not necessarily within the AI community. Topics of interest include, but are not limited to:

1. Semantic platforms to integrate, manage and publish government data
   - Provenance, access control and privacy-preserving issues in open data
   - Collaborative and evolving semantic models for cities. Challenges and lessons learned.
   - Semantic data integration and organization in cities: social media feeds, sensor data, simulation models and Internet of things in city models.
   - Big data and scaling out in Semantic cities. Managing big data using knowledge representation models
   - Knowledge acquisition, evolution and maintenance of city data
   - Challenges with managing and integrating real-time and historical city data

2. Process and standards for defining, publishing and sharing open city (government) data
   - Platforms and best practices for city data interoperability
   - Foundational and applied ontologies for semantic cities

3. Robust inference models for semantic cities
   - Large-scale / stream-based reasoning
   - Semantic event detection and classification
   - Spatio-temporal reasoning, analysis and visualization

4. City applications involving semantic model
   - Intelligent user interfaces and contextual user exploration of semantic data relating to cities
   - Use cases, including, but not limited to, transportation (traffic prediction, personal travel optimization, carpool and fleet scheduling), public safety (suspicious activity detection, disaster management), healthcare (disease diagnosis and prognosis, pandemic management), water management (flood prevision, quality monitoring, fault diagnosis), food (food traceability, carbon-footprint tracking), energy (smart grid, carbon footprint tracking, electricity consumption forecasting) and buildings (energy conservation, fault detections).

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**Workshop Series**

The workshop continues the workshop on semantic cities at AAAI 2012, IJCAI 2013, whose attendees backgrounds included Knowledge Representation, AI Planning and scheduling, Multi-Agent Systems, Constraints Satisfiability and Search.

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**Workshop Details**
**Workshop Format:** The workshop will consist of papers, poster presentations, demonstrations, a panel, an invited talk, and discussion sessions, in a one full day schedule. The invited talk will invite a leading expert in the field to present their research and vision of future work. The panel will focus on connecting the AI researchers to the various challenges that the targeted domain brings. The schedule will follow the schedule of the 2012 and 2013 editions, all grouped by topic and type (invited talk, long, short and demonstration papers, panel).

**Submission Guidelines:** Papers must be formatted in AAAI two-column, camera-ready style. Regular research papers (submitted and final), which present a significant contribution, may be no longer than 7 pages, where page 7 must contain only references, and no other text whatsoever. Short papers (submitted and final), which describe a position on the topic of the workshop or a demonstration/tool, may be no longer than 4 pages, references included.

**Submission site:** Papers are to be submitted online at https://www.easychair.org/conferences/?conf=semcities14. We request interested authors to login and submit abstracts as an expression of interest before the actual deadline.

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**Important Dates**

April 10, 2014: Paper Submission Deadline  
May 1, 2014: Notification Decision  
May 15, 2014: Camera Ready Due  
July 27-28, 2014: Workshop date

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**The Organizers**

**Co-Chairs:**

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