Call For Papers

WWW2017 Semantics & Knowledge Track

The last few years have seen the mainstream adoption of semantic/structured data by widely used services such as Google/Bing search, Cortana, and Google Assistant. Simultaneously, we are seeing a significant (double digit) fraction of web pages containing semantic web markup. Many of next-generation applications and IoTs/devices draw some of their power from such markup occurring not just in web pages but also in email and other communication. Open data is also revolutionizing research in areas ranging from basic science and engineering to the social sciences.

These successes have opened the doors to new challenges that are the focus of the

WWW Semantics and Knowledge track. The emphasis this year will be on the creation of knowledge bases, on bridging structured and unstructured data, and on new techniques for semantic processing of large, real-world datasets. The context of research needs to be Web-scale or at least Web-based, or one that employs open world assumptions and the ones that are scalable. Approaches that focus on closed world assumptions, or methods applicable to small knowledge and datasets, are of less interest.

Example topics of interest include, but are not limited to:

- Scalable techniques for the creation of large, web-based, structured, reusable, knowledge graphs. Of interest are methods involving content markup using standard vocabularies (e.g., schema.org), crowdsourcing (e.g., Wikidata), and automated domain model or knowledge base construction.

- Semantic annotation, enhancement, enrichments, and/or integration of a variety of data: biological and physical (esp. sensor/IoT), cyber/Web-based (incl. structured and unstructured text and a variety of digital media), social, and multimodal; semantic information extraction (NER and relationship extraction/labeling/linking).

- Data representation and models for scalable semantic computing — including the use of (probabilistic) graph models and all aspects that focus on identification/extraction/ representation/reasoning involving relationships (incl. moving from keywords/strings and entities/things to relationships and events).

- Use of semantic annotations/enrichments for improving search, browsing, personalization, advertisement, etc.; semantic applications involving multimodal data (incl. spanning physical, cyber, and social); scalable services for domain-independent and domain-specific annotations and insights (esp. on novel issues such as intent and subjectivity) on the variety of content and their use in Web applications.

- Semantics to enable intelligent or human-like behavior and human actions including cognitive and perceptual computing; scalable semantic applications for dynamic (incl. streaming) and high throughput (e.g., genome sequencing) content.

- Bridging structured and unstructured data.

Track Chairs and Contacts

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