News from semantic web and knowledge engineering conferences in 2016

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About the SWOE group

- **S**emantic **W**eb and **O**ntological **E**ngineering
- One of the 4 workgroups of the Department of Information and Knowledge Engineering
- 4 faculty (2 tenured, 2 tenure-track), 4 PhD students, several MSc students and project workers
- Focus on
  - Ontological engineering
  - Linked data management
  - Intersection with both above with data mining
- See *http://kizi.vse.cz/swoe*

Conferences visited in 2016

- **ISWC** – worldwide-leading konference on *semantic web* (Kobe, Japan) – since 2001, annual

- **ESWC** – leading european conference on *semantic web* (Crete, Greece) – since 2004, annual

- **EKAW** - leading european conference on *knowledge engineering* (Bologna, Italy) – since 1987, biannual

- **FOIS** - worldwide-leading konference on *applied ontology* (Annecy, France) – since 1998, biannual

- **SEMANTiCS** – lead conference accenting *linked data* and *academic-industrial* collaboration (Leipzig, Germany) – since 2005, annual

- For completeness also:

  - **KESW** – Russian/East-European semantic web conference (Prague, Czech R.)

  - **Data a Znalosti / WIKT** – Czech and Slovak collocated conferences on database, knowledge a intelligent technology (Smolenice, Slovakia)

EKAW 2016

- Cca 120 participants

- Single-track main program (!)
  - 3 keynotes
  - Contributed papers
    - 171 submissions; each paper at least 3 reviews
    - 51 accepted - 30% acceptance
    - of these, 30 / 21 with full / short oral presentation
  - Poster/Demo section

- Co-located
  - 4 workshops (incl. OWLED)
  - 2 tutorials (OBDA, R2R)
  - Doctoral symposium

EKAW 1987-2016

- Topic evolution of the series

  - Original core: Knowledge Acquisition for KBS

  - During 1990s: Ontologies coming

  - From 2000 strong influence of Semantic Web, but kept focus on conceptual rather than just technological view

- Started in 1987 as standalone workshop

  - Sister event of the Banff KAW (now K-CAP conf.)

- From 1992 proceedings in Springer LNCS

- From 2000 named as „conference" and held biannually

- 2006 edition in Poděbrady (CZ)

  - Unfortunately, very small participation from CZ / EE even after

EKAW 2016 keynotes

- ## Chris Welty

  - Data crowdsourcing using vector representation (*CrowdTruth.org* project): deep knowledge acquisition from 'multiple truths' rather than cropping a 'single truth'

- ## Francesca Rossi

  - Importance of ethics in AI

- ## Luc Steels

  - Evolution of languages (demonstrated on communication between robots), protecting diversity

EKAW 2016 hot topics
(subjective view)

- Domain knowledge graphs + datasets, entity linking, crowdsourcing, recommenders

- From text to structured representation

- From isolated structured data (RDB, web tables, infoboxes…) to RDF representation

- Capturing knowledge dynamics

- Making knowledge representation comprehensible (verbalization, visualization)

- Easy-to-use integrated platforms

- Societal aspects of knowledge technologies

SEMANTiCS 2016

- The 12th International Conference on Semantic Systems, formerly known as I-Semantics

- Viewed as most important konference focused on linked data, especially with respect to aligning industry and academia

- Trends, as observed by Jindřich Mynarz

  - Both academia and industry can provide cutting edge research; industry does not only „sell for money"

  - Semantic bits become normal part of mainstream solutions

  - Bridges between RDF and non-RDF world: JSON-LD, property graphs, etc.

  - In data mining over RDF tensor factorization is first choice