

## Preface

This volume contains the papers presented at “SW4Law 2014: 2014 International Workshop on Semantic Web for the Law” held on December 10th, 2014 in Kraków, co-located with the 27th International Conference on Legal Knowledge and Information Systems (JURIX-2014).

The two research areas of Legal Knowledge and Information Systems, and the Semantic Web are very much interconnected. The legal domain is an ideal field of study for Semantic Web researchers, as it uses and contributes to most of the topics that are relevant to the community. Given the complex interactions of legal actors, legal sources and legal processes, as well as the relevance and potential impact of decisions in the juridical and social processes of a country, it provides a challenging context and an important opportunity for groundbreaking research results. At the same time, Semantic Web formalisms and technologies provide a set of technical instruments which can be fruitfully adopted by legal experts to represent, interlink, and reason over legal knowledge and related aspects such as provenance, privacy, and trust. In particular, Semantic Web technology facilitates standards-based legal knowledge representation, which enables the possibility of legal information reuse over the Web.

Ontologies, knowledge extraction and reasoning techniques have been studied by the Artificial Intelligence & Law community for years, but only few and sparse connections with the Semantic Web community have resulted from these interactions. The aim of this workshop was to study the challenges that the legal domain poses to Semantic Web research, and how Semantic Web technologies and formalisms can contribute to address these open issues. This way, we promoted the use of legal knowledge for addressing Semantic Web research questions and, vice versa, to use Semantic Web technologies as tools for reasoning over legal knowledge. In particular, the workshop aimed at attracting submissions exploring the following topics:

- Modeling access policies to Semantic Web datasets
- Semantic Web and online dispute resolution and mediation
- Law and Regulations patterns of Social Web communities (such as Second Life, Facebook, or Twitter)
- Semantic sensor networks in lawsuits, crisis mapping, emergencies and stand-by forces
- Semantic Web techniques and e-discovery in large legal document collections
- Semantic Web technologies and opinion collection and analysis
- Legal content and knowledge in the Linked Data
- Knowledge acquisition and concept representation on annotations and legal texts
- Legal ontology process and management
- Legal reasoning and query in the Semantic Web
- Scalability issues in representing law and legal texts
- Analysis of provenance information to detect violations of norms/policies
- Expressive vs. lightweight representations of legal content
- Core and domain ontologies in the legal domain

- Theories, design patterns and ontologies in legal argumentation
- Time and legal content representation (texts, concepts, norms)
- OWL approaches to reasoning and legal knowledge
- Linking legal content to external resources
- Provenance, trust and metadata for authoritative sources
- SPARQL queries on large legal datasets
- Legal knowledge extraction using NLP and ontologies
- User-friendly applications and interface design to interact with legal semantic information
- Publishing/reusing legal-related content in Linked Data
- Legal semantic services and mobile applications
- Rules and Automated Reasoning in the Semantic Web
- Semantic Web technologies and Legal Scholarly Publishing
- Access to legal information and visualization
- Rights and licenses for data and semantics
- Law, Intellectual property and legal issues for data and schemas
- Licenses for Linked Open Data
- Information ethics and the SW
- Law and governance in deliberative democracy and democratic participation
- Normative Multi-agent Systems and the Semantic Web

Four papers have been accepted after the reviewing process, and they cover different topics from legal requirements for cloud-based service consumption to legal interpretations in Legal-RuleML, to legal support systems for the air transport passenger domain, to a logical model of guilt in crime. The invited speaker of the is Pompeu Casanovas (University of Barcelona, Spain) that will talk about Knowledge Acquisition, the Semantic Web and the pragmatic turn.

Given the growing interest of the two communities of Semantic Web and Law towards shared synergies, we hope that the workshop will be a selected venue to present the results of such joint effort also in the future.

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