

Summer School LEX 2010, Ravenna, Italy

Managing Legal Resources in the Semantic Web

ADVANCED MODULE - 8th-11th September

DATE	TEACHER	TITLE AND CONTENT DESCRIPTION
8th Sept.	Chairman: Palmirani	Semantic Web in Legal document
9,00-10,45	Schefbeck/ Palmirani	<p>TITLE: Naming of referencing and modifications: theoretical models, legislative traditions and drafting requirements</p> <p>ABSTRACT: This session addresses naming and normative referencing in theory and practices with a comparative approach. We also consider the specific problem related to the modificatory provisions, which create often complexity and affect the legal certainty. We argue that certain aspects of the legal language can be standardised and simplified, and that can favour computer elaboration using the semantic web technologies.</p> <p>The students will acquire the capacity to understand the existing approaches to legal drafting techniques and the concrete examples specified in the Legal Common Guidelines and in the Austrian Code with particular regard to normative referencing, modifications, naming of the parts.</p> <p><i>LECTURE SESSION</i></p>
Coffee 10,45-11,15		
11,15-12,15	Vitali	<p>TITLE: Structural markup and legal metadata</p> <p>ABSTRACT: The purpose of this section is to prove some basic methodological insights into the design of the legal document-models: what to look for when designing a vocabulary for XML documents, what regularities to exploit, what metadata to introduce, how to deal with metadata in a mixed XML and RDF/OWL environment.</p> <p><i>LECTURE SESSION</i></p>
12,15-13,00	Francesconi	<p>TITLE: RDF and Semantic Mark-up of Legislative Texts</p> <p>ABSTRACT: This section will provide an introduction to RDF semantic Web standard, in particular with examples to illustrate the expressivity power of RDF. A case-study of using RDF in the legal domain will be illustrated: starting from a semantic model of legislation able to describe legal provisions, a possible technique for RDF semantic annotation of legislative texts will be shown.</p> <p>Examples will be distributed to the classroom and commented with the students. The students should be able to understand the theory and the methodology, as well as to apply it to concrete cases.</p> <p><i>LECTURE SESSION</i></p>
Lunch 13,00-14,15		
14,30-15,30	Palmirani	<p>TITLE: Metadata in the modelling of judgments</p> <p>The judgment document, or case-law, has a flexible and usually unstructured architecture. Nevertheless the metadata are really relevant in quantity and in quality.</p>

		This lecture aims to present these metadata and to provide the Akoma Ntoso framework for the markup.
Coffee 15,30- 16,00		
16,00- 18,00	Palmirani- Cervone	Practical Section Practical: Tagging amendments Practical: Tagging judgments
20,00		Social Dinner

DATE	TEACHER	TITLE AND CONTENT DESCRIPTION
9th Sept.	Chairman: Tiscornia	Ontology in Legal domain – ADVANCED MODULE
9,00-10,45	Aldo Gangemi	TITLE: Semantic Web Ontologies: OWL, Linked Data, and Basic Design Patterns ABSTRACT: A quick overview of the features of semantic web languages and semantic data linking will be presented. The students are asked to read introductory material in advance for best results from this session. The lecture will use a web browser and an ontology editor to introduce the language constructs and some data. LECTURE SESSION
Coffee 10,45- 11,15		
11,15- 12,00	Nuria Casellas	TITLE: Legal ontologies: types, methodologies and applications ABSTRACT: The session provides an overview of good design practices that can be used for whole classes of legal modelling problems. A web browser and an ontology editor will be used to introduce sample practices. LECTURE SESSION
12,15- 13,00	Tommaso Agnoloni, Ittig-CNR, Simonetta Montemagni, ILC-CNR	TITLE: Linguistic and Legal Ontology ABSTRACT: This session will present an overview of current research on <i>lexical</i> (also called linguistic or lightweight) <i>ontologies</i> . Compared to traditional linguistic resources, such as thesauri, classification schemas, etc., which are usually search-oriented, the structure of linguistic ontologies is based on lexical semantic, which guarantees a 'neutral' approach and, as a consequence is more effective in terms of interoperability, sharing, integration and reuse. Lexical ontologies can also provide simple but consistent solutions to the construction of multilingual lexicons. It is widely recognized that, while it is increasing the need of semantic tools for searching legal information in multi-national environments, a consistent methodology for building multilingual thesauri for legal domain doesn't exist. The session introduces and clarifies methodological implications both from a theoretical and empirical point of view. From the theoretical side, some fundamental questions related to the definition of a domain specific methodology will be addressed, while practical solutions will be explained through the illustration of concrete projects. The methodology set up for the realization of multilingual lexicon structured along the lines of consolidated models (WordNet, Framenet) will be explained; terms extraction techniques

		<p>applied in the projects will be shortly introduced and applicative results will be outlined; the course will also discuss operational issues related to the definition of collaborative platforms for incremental and distributed process of ontology construction.</p> <p>LECTURE SESSION</p>
Lunch 13,00-14,15		
14,30-15,30	<p>Tommaso Agnoloni, Ittig-CNR,</p> <p>Simonetta Montemagni, ILC-CNR</p>	<p>CONTINUING ---</p> <p>LECTURE SESSION</p>
Coffee 15,30-16,00		
16,00-18,00	<p>Gangemi/ Casellas/ Biasiotti/</p>	<p>Hands-on linguistic ontologies and design patterns</p> <p>TITLE: Hands-on Basic Ontology Design.</p> <p>ABSTRACT: This is a hands-on session in creating and publishing an ontology for a specific task in the legal domain. RDF, OWL, and design principles will be applied here. The students will use the NeOn Toolkit ontology editor with some of its plugins, please download it from: http://neon-toolkit.org/wiki/Download/2.3.1, choose your preferred platform, and add the following additional features: KC-Viz, OWLDoc, RaDON, Reasoner, SPARQL, Watson, XDTools.</p> <p>PRACTICAL SESSION</p>

DATE	TEACHER	TITLE AND CONTENT DESCRIPTION
10th Sept.	Tom Van Engers	Legal Knowledge Management
9,00-10,45	Tom Van Engers	<p>TITLE: Introduction to Legal Knowledge Management</p> <p>ABSTRACT: Legal Knowledge Management is focused on strategic issues which might require improving accessible (legal) source of knowledge but surely couldn't be limited to that. In this lecture an overview of strategic knowledge management issues is presented and illustrations from current developments are give and discussed.</p> <p>LECTURE SESSION</p>
	Tom Van Engers	<p>TITLE: Knowledge representation</p> <p>LKIF-core: legal ontology and legal reasoning</p> <p>ABSTRACT: This lecture presents invariant elements in any legal system. These elements are described in a core ontology called Legal Knowledge Interchange Format Core ontology (LKIF-core)</p> <p>LECTURE SESSION</p>
Coffee 10,45-11,15		
11,15-	Tom Van	TITLE: Natural Language Techniques for Legal Knowledge Management

12,00	Engers	<p>ABSTRACT: A text with legal content expressed in natural language can, to a large extent, be automatically annotated with semantic mark-ups using natural language processing systems such as the General Architecture for Text Engineering (GATE). The lecture gives an overview of GATE, some examples, and an indication of future research trends.</p> <p>LECTURE SESSION</p>
12,00-13,00	Tom Van Engers	<p>TITLE: Computational Models of Legal Arguments</p> <p>ABSTRACT: This lecture presents the basic motivation for modelling argumentation is given. Examples from a practical case are used to demonstrate the current state of the art and the open issues.</p> <p>LECTURE SESSION</p>
Lunch 13,00-14,15		
14,30-15,30	Tom Van Engers	<p>TITLE: The structure of argumentative legal texts</p> <p>ABSTRACT: Many legal texts are argumentative, such as the case files exchanged by the parties in a case, the court's decision in a case, scholarly publications and discussions and opinions in legal blogs. In this part of the course an introduction is given to the argumentative structure of such texts. The following topics will be discussed:</p> <ul style="list-style-type: none"> • the structure of argument; • argument and counterargument; • legal argumentation schemes. <p>If time permits, the student will make some exercises on identifying these elements in an example argumentative legal text.</p>
Coffee 15,30-16,00		
16,00-18,00	Tom Van Engers	PRACTICAL SESSION

11th Sept. 10.00-13.00	<p>Invited speakers: Success Cases of XML-ization in legislative domain</p> <ul style="list-style-type: none"> • 10.00-10.20 Fabiani C., EU Parliament: XML-ization projects • 13.00-11.00 Vergottini G., California Success Case: XML-ization success case in California Legislation • 11.00-11.30 Schefbeck G., Austrian Parliament: XML success case • 11.30-12.00 Italian success cases: legislative XML • 12.00-13.00 Student Project presentations
Lunch 13,00-14,15	
	<p>Tour in Ravenna City 14.30-17.30 Guided tour in the Ravenna City</p>