

Summer School LEX 2010, Ravenna, Italy

Managing Legal Resources in the Semantic Web

BASIC MODULE 6th-7th September

DATE	TEACHER	TITLE AND CONTENT DESCRIPTION
6th Sept.	Chairman: Vitali	Introductory overview – BASIC MODULE
9,00-10,45	Vitali	<p>TITLE: XML tutorial: electronic management of documents</p> <p>ABSTRACT: The purpose of this section is to introduce the principal aspects of electronic management of documents:</p> <ul style="list-style-type: none"> • What we actually mean by documents (the FRBR hierarchy) • What are the components of documents • What do we mean by data and metadata about documents <p>LECTURE SESSION</p>
Coffee 10,45-11,15		
11,15-13,00	Vitali	<p>TITLE: XML tutorial: Markup languages and web technologies</p> <p>Presentation of the main concepts of markup languages, XML characteristics, technical issues.</p> <p>ABSTRACT: The purpose of this section is to introduce some technologies related to electronic management of documents</p> <ul style="list-style-type: none"> • XML • DTDs • XML Schema • XSLT • RDF and OWL <p>all somehow connected and related to parliamentary documents and other types of documents.</p> <p>LECTURE SESSION</p>
Lunch 13,00-14,15		
14,30-15,30	Palmirani- Di Iorio- Cervone	<p>PRACTICAL SECTION</p> <p>Analysis of a simple legal text. Presentation of how to markup a legal document (law): structure and references.</p> <p>Analysis of the legal standard Akoma Ntoso Present the Akoma Ntoso general structure. Markup together a document.</p>
Coffee 15,30-16,00		
16,00-18,00	Palmirani- Cervone	<p>PRACTICAL SECTION</p> <p>Project presentation A practical project is assigned to groups. How to mark up legislative document, document metadata, normative references</p> <p>Practical: Tagging the structure of a legislative Act The aim of this practical section is to tag a legislative Act: structure, annexes, document metadata, references, quoted text and modificatory provisions.</p>
18,00-19,00		Welcome Cocktail

DATE	TEACHER	TITLE AND CONTENT DESCRIPTION
7th Sept.	Chairman: Sartor	TITLE: Structure, Naming, Processes in the legal domain – BASIC MODULE
9,00-10,00		<p>Opening section and welcome</p> <p>Mayor of Ravenna City Fondazione Flaminia Provincia di Ravenna Ordine degli Avvocati di Ravenna</p> <p>EUI representative CIRSFID representative ITTIG representative</p>
10,00-10,45	Sartor	<p>TITLE: Legal sources on the web: rationale, benefits, principles, methodologies and tools</p> <p>ABSTRACT: Introduction to XML in legal informatics, in particular about the legal sources on-line. Some examples of concrete benefits in the legal sector should be presented.</p> <p><i>LECTURE SESSION</i></p>
Coffee 10,45-11,15		
11,15-12,00	Sartor/ Schefbeck	<p>TITLE: Legislative traditions and drafting guidelines: pre-requirement of the legislative document management</p> <p>ABSTRACT: The legislative drafting process comprises several distinct steps: It is based on the requirement of analyzing (and “understanding”) the respective political instructions, and it includes designing, composing, editing, and scrutinizing legislative documents. This regularly is to be done within a framework of legislative drafting rules, which in different normative systems may belong to different kinds of regulations, ranging from mere recommendations to binding legal rules.</p> <p>The lecture will stimulate reflection on different legislative traditions and legislative drafting rules, but it will focus on a specific set of drafting guidelines developed within the Akoma Ntoso project and based upon the Akoma Ntoso standard. This set of legislative drafting guidelines takes into account the experiences of different normative systems belonging to the Continental as well as Anglo-Saxon traditions.</p> <p>Finally, some practical advice and examples will be given. They will cover the different issues of style and usage in writing laws, as well as the “architecture” or systematic organization of legal regulations. Based on the experiences presented, four basic principles for legislative drafting may be developed: economy, clearness, system and formalism.</p> <p><i>LECTURE SESSION</i></p>
12,00-13,00	Francesconi, Spinosa	<p>TITLE: Naming legislative resource</p> <p>ABSTRACT: The growing desire for improved quality and accessibility of legal information amplifies the need for interoperability among legal information systems at the national, transnational and international level. A shared, open standard for identifying sources of law is an essential prerequisite for interoperability.</p> <p>In this talk an overview of the motivations as well as the technical aspects</p>

		<p>dealing with unequivocal, persistent, location-independent identifiers for legal materials on the Web will be presented. In particular a possible implementation using the URN technique will be shown. Similarly examples of tools and services able to implement such a standard will be presented.</p> <p>Benefits related to the adoption of this standard will be illustrated. In particular, besides legal content providers, Internet content creators including publishers operating well outside the traditional arenas of legal publishing (news, technical documentation providers, etc.) will benefit from a standard for identifying legal materials because it facilitates linking of legal documents and reduces the cost of maintaining documents containing references.</p> <p>In the last few years a number of initiatives both in and outside Europe have arisen in the field of legal document standards to improve legal document accessibility on the Internet.</p> <p>A proposal for a unique identifier for <i>sources of law</i> based on URN technique, capable of scaling beyond national boundaries, is presented as well: it is based on the definition of a namespace convention (LEX) and a structure for creating and managing identifiers of XML-encoded legal documents. This proposal is based on a shared modality of identifying legal acts through a set of metadata, common to other schema (as CEN-Metalex), able to identify any source of law at various levels of abstraction (work, expression and manifestation).</p> <p>LECTURE SESSION</p>
Lunch 13,00- 14,15		
14,30- 15,30	Vitali	<p>TITLE: Structuring legislative documents with XML standards</p> <p>ABSTRACT: We will consider how modern Information and Communication Technologies (ICT) are instrumental to the best access of citizens to legislation. Only through standards for data, processes and identification of legislation document we can exploit the advantages of ICT. For this reason we will introduce discuss standards and standardization activities with particular attention to legislative and parliamentary documents</p> <p>LECTURE SESSION</p>
Coffee 15,30- 16,00		
16,00- 18,00	Palmirani	<p>TITLE: Modelling the legislative lifecycle</p> <p>ABSTRACT: Legal resources are no longer isolated document and they result from a complex lifecycle including versioning, variant and derived sub-products. More and more the attention of the legislative informatics is moving from the eLegislation model to a new eParliament approach. In the latter approach all lifecycle events are modelled in digital way and proper metadata are capture in any phase of the legislative process and beyond in the publishing sector.</p> <p>The lecture presents the metadata for modelling the lifecycle, the methodologies of consolidation/versioning, the metadata for tracking all the workflow inside of the legislative process.</p> <p>LECTURE SESSION AND PRACTICAL SECTION</p>
Informal Dinner on the beach (not cover by the fee)		

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> <p>This lecture aims to present these metadata and to provide the Akoma Ntoso framework for the markup.</p>
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 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.

		LECTURE SESSION
Lunch 13,00- 14,15		
14,30- 15,30	Tommaso Agnoloni, Ittig-CNR, Simonetta Montemagni, ILC-CNR	CONTINUING --- LECTURE SESSION
Coffee 15,30- 16,00		
16,00- 18,00	Gangemi/ Casellas/ Biasiotti/	Hands-on linguistic ontologies and design patterns TITLE: Hands-on Basic Ontology Design. 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. PRACTICAL SESSION

DATE	TEACHER	TITLE AND CONTENT DESCRIPTION
10th Sept.	Tom Van Engers	Legal Knowledge Management
9,00-10,45	Tom Van Engers	TITLE: Introduction to Legal Knowledge Management 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. LECTURE SESSION
	Tom Van Engers	TITLE: Knowledge representation LKIF-core: legal ontology and legal reasoning 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) LECTURE SESSION
Coffee 10,45- 11,15		
11,15- 12,00	Tom Van Engers	TITLE: Natural Language Techniques for Legal Knowledge Management 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. LECTURE SESSION
12,00-13,00	Tom Van Engers	TITLE: Computational Models of Legal Arguments 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. LECTURE SESSION
Lunch 13,00-14,15		
14,30-15,30	Tom Van Engers	TITLE: The structure of argumentative legal texts 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: <ul style="list-style-type: none"> • the structure of argument; • argument and counterargument; • legal argumentation schemes. If time permits, the student will make some exercises on identifying these elements in an example argumentative legal text.
Coffee 15,30-16,00		
16,00-18,00	Tom Van Engers	PRACTICAL SESSION

11th Sept. 10.00-13.00	Invited speakers: Success Cases of XML-ization in legislative domain <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	
	Tour in Ravenna City 14.30-17.30 Guided tour in the Ravenna City