

Legislative standards and openness

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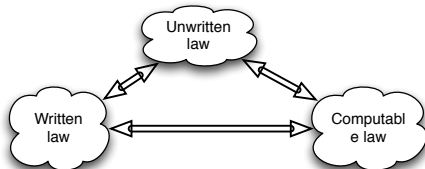
Ravenna LEX 2012



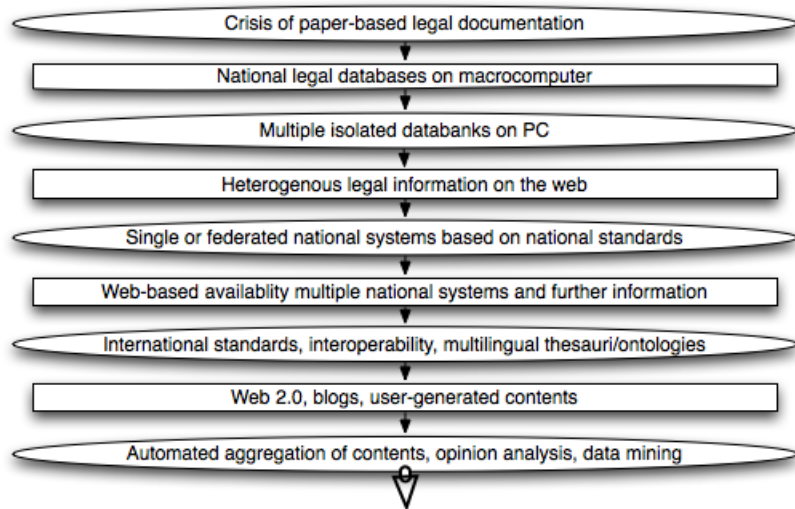
Where is the law?

- unwritten law (in thought and action)
 - tacit-implicit law (social norms, customs, attitudes)
 - spoken law (proverbs, parables, commandments, advice)
- written law (in human-readable form)
 - hand-written law (Hammurabi, the 12 tables of ancient Roman law, Justinian's digest)
 - printed law (official gazettes)
- computable law (in machine-readable form)
 - electronically stored law (in legal databases)
 - electronically processed law (in computer programs and knowledge bases)

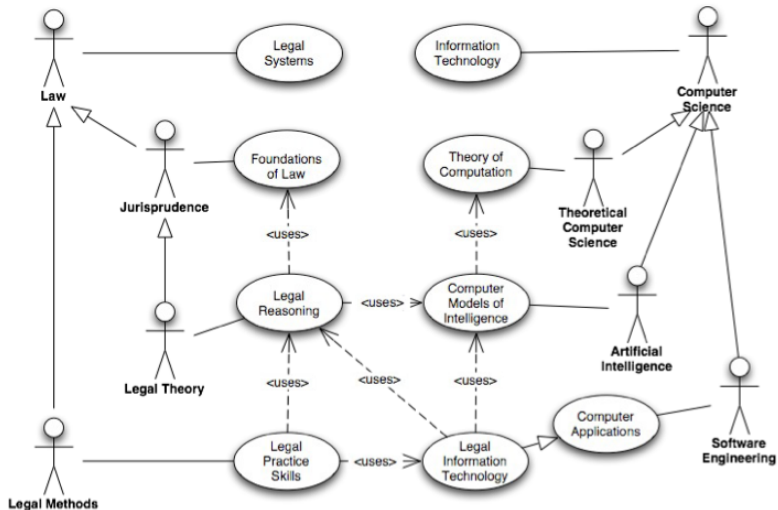
No substitution: dialectical integration/transmutation of the different media



Legal information systems (from the '60s into the future)

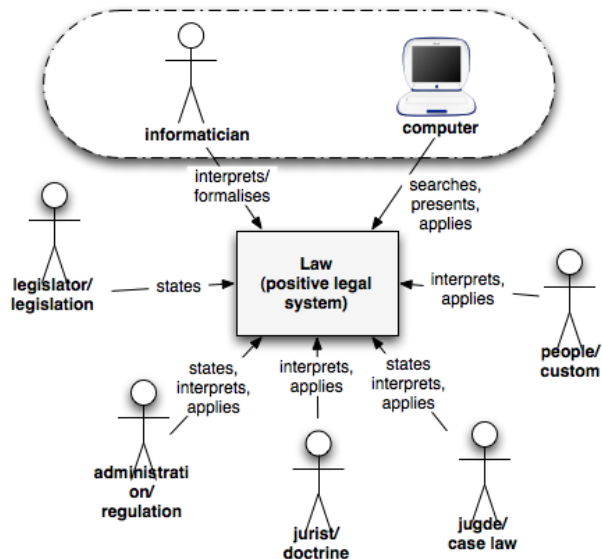


The epistemology of legal informatics

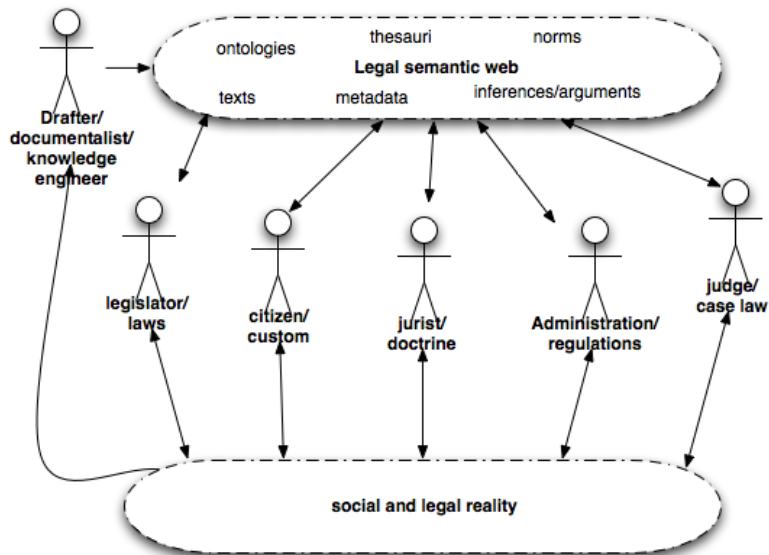


(From Tom Gordon)

Legal informatics and the law



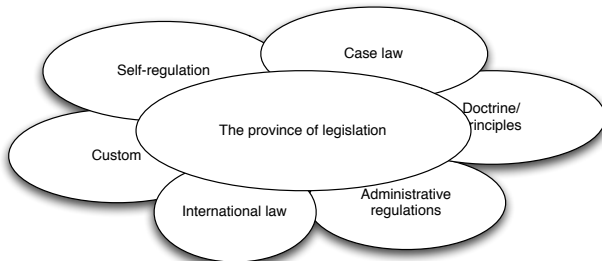
Legal informatics and the web



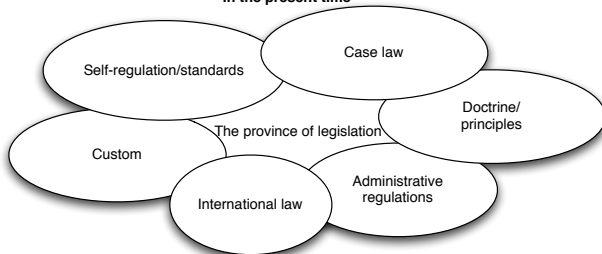
- Drafting methods, to improve the language and the structure of legislative texts;
- Legal XML standards, to improve the accessibility and interoperability of legal resources;
- Legal ontologies, to capture legal metadata and legal semantics;
- Formal representation of legal contents, to support legal reasoning and argumentation;
- Workflow models, to cope with the lifecycle of legal documents.

The current province of legislation

In the "classical" age of legislation



In the present time



Some values for legislation in the information age

- Effectiveness: Legislation should solve the problems it addresses, according to the best available knowledge.
- Deliberation: Legislation should emerge out of a debate taking into account all interests at stake, pros and cons, possible alternatives.
- Responsiveness: Legislation should reflect the reasoned needs and preferences of citizens.
- Progress: Legislation should adapt the legal framework to new needs, also through broad reforms.
- Certainty: Legislation should provide precise normative guidance, preventing the exercise of arbitrary power.
- Citizen's rights: Legislation should specify citizens' rights, as well as ways of implementing them.
- Coordination: Legislation should be coordinated with other legal sources

Some tasks for ICT

- Effectiveness: Provide appropriate information and so contribute to knowledge and evidence-based legislation.
- Deliberation: Support communication and reasoned debate within the legislative process.
- Responsiveness: Support communication between Parliaments and civil society.
- Progress: Enable legislator deal with legal change, by providing information, simulations, and drafting support.
- Certainty: Provide everybody with tailored and updated information about law in force and its application.
- Citizen's rights: Provides citizens' with knowledge of their rights, and support for their implementation.
- Coordination: Support integration of national legislation with other sources (national, foreign, international).

ICT and the predicament of legislation

ICT as part of the problem:

- ICT as the infrastructure of globalisation: it enables economic and social networks transcending borders
- ICT as the engine of economical and social development: it increases the speed of change
- ICT as the enzyme of complexity: by increasing knowledge and possibilities available to individual actors it increases the complexity of their interaction

ICT as part of the solution?

- ICT as the infrastructure of legislative networks: by enabling a network of legislative bodies it favours shared (or coordinated) replies to global issues
- ICT as the support of dynamic drafting: it enables us to make legal dynamics treatable
- ICT as the information system of legislation: it enables legislators to model and respond to social complexity



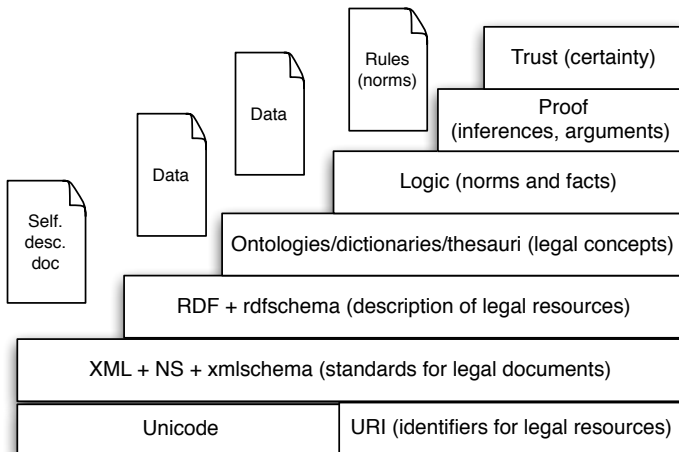
- add to documents information that computers can understand and process so that they can help us in
 - finding documents
 - producing documents
 - using the information inside documents
- use agreed-upon formats for expressing that information, so that we can
 - make document accessible through the web
 - exchange document with everybody
 - use documents with all software programs and systems
 - pool resources for building common solutions

Legal texts enriched with machine processable information, which are:

- produced during the legislative process
- containing information which contributes to direct the workflow
- preserved to record the workflow
- transformed into new documents as the workflow proceed (transferring both the text and metainformation about it)
- made accessible to everybody (without additional processing)
- open to everybody for inspection
- distributed on a non-discriminatory basis
- usable with common tools

NB: We need an incremental approach: each level is a precondition of the other, but no need to go beyond what is required and feasible.

Semantic web and the law



What standard-based machine-processable information?

- structures of legal texts
- references between legal texts
- the life-cycle of legal texts
- modifications of legal texts
- semantic of legal terms (thesauri, computational lexicons, light ontologies)
- legal concepts and their definitions (formal ontologies)
- semantical structures of normative language (semantic annotation of legal texts)
- norms (logical formalisation of normative contents)

Computable forms of legal reasoning:

- text retrieval
- determination of law in force
- terminological inference (subsumption)
- normative inferences (application of rules)
- legal arguments (conflicts resolution, extracting arguments form cases, analogy, a fortiori reasoning, dialectics, probabilistic inference, etc.)

By putting the law on the web we should:

- provide all with accessible legal information, tailored to their needs
- support the production and the application of the law
- support communication between government and citizens
- support political and legal discussion.

For this purpose legal information on the web must:

- be accessible to everybody
- be usable through all systems and devices
- empower everybody as a producer of legal information

For this purpose it must comply with a shared standard.

The semantic web represents an opportunity for the legislation

- maintenance of legal sources
- improvement of legal del drafting
- legislation based upon knowledge and dialogue
- publicity of procedures and information
- dialogue between sub-national, national, and international institutions

Compliance with (reasonable and) shared standards is a precondition for this opportunity to be realised.

Standards about what?

We need to specify in a precise way, understandable to a machine, and shared by all users, the following elements:

- the identification of a legal source
- the organisation of its content (structure)
- links to other sources
- textual modifications
- information about the source
- concepts
- norms

NB: Each addition of machine processable information adds to what can be done with the text, to the support we can get from ICT tools.

What kind of standards?

Standards based on XML (eXtended Markup language), including:

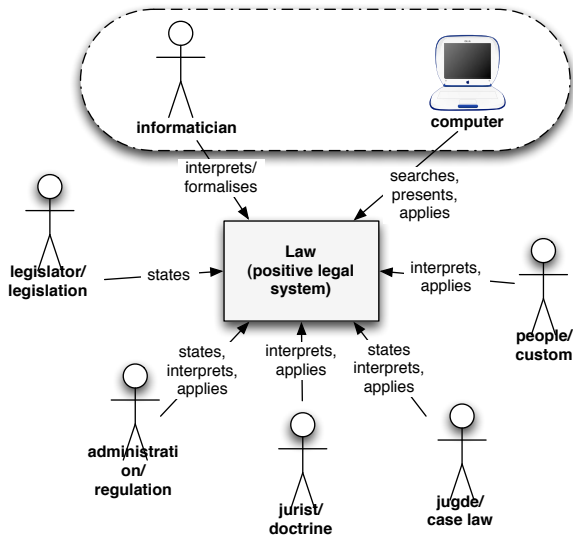
- Markup: computer-processable information added to a text:
`<title>Privacy Act</title>`
- URI: universal resource identifiers:
`urn:nir:stato:legge:1999-11-24;468`
`http://www.authority.org]/dz/debaterrecord/2004-12-21/fra`
- Metadata: information about the document, which is include in the document (e.g. the lifecycle)
`<publication name="Official Journal" date="1980-01-01"`
`showAs="Official Journal of UN" number="234"/>`

All of these element must be provided according to an open non-proprietary model

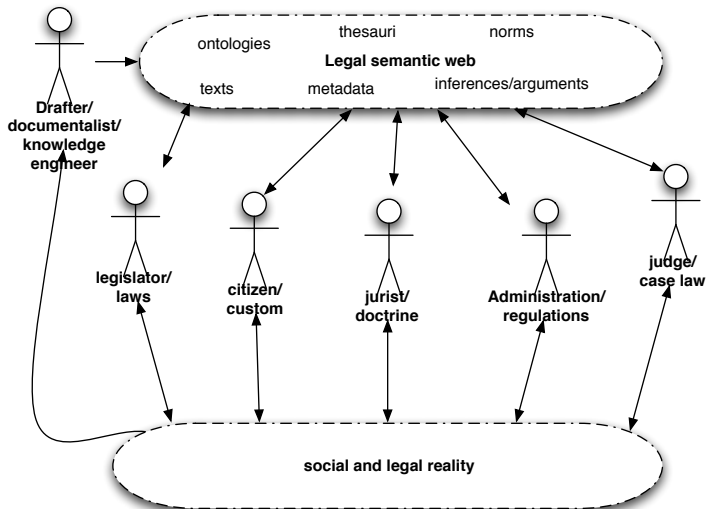
XML-based standards for legislation

- National standards, in many countries (e.g. Norme in rete, the Italian standard for legislative documents and regulations)
- Emerging international interchange standards: Metalex, developed by the Metalex-CEN consortium
- Emerging international standards: Akoma-Ntoso

Two new agents (forming forces) of the law



The law as a web resource



Title: *Legislative XML for the Semantic Web*
Subtitle: *Principles, Models, Standards for Document Management*
Edited by: Giovanni Sartor, Monica Palmirani, Enrico Francesconi,
Mariangela Biasiotti
Publisher: Springer
Year: 2011

Thanks for your attention!
I hope you will enjoy the LEX summer school and Ravenna!

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