LegalDocML – Akoma Ntoso

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Legal Document, Legal Rules, Legal Citations: an ecosystem for legal documents

- Legal document in XML - LegalDocML
- Legal citations - LegalCiteM
- Legal Ontology
- Logic Rules - LegalRuleML

Annotation
Crowd-sourcing
Citizen participation
Market applications
Civic media
Interoperability

Linked Open Data

Certified process

Web of things

ENGINE

Rendering for the end-user
Legal Standards Ecosystem, good for what?

- Model the **legal knowledge** inside of the information society
- Improve **interoperability**, quality and effectiveness of the legal services
- **Management over the time** of the legal sources in digital era with long-preservation principles
- **Semantic Web/LOD** for legal knowledge retrieval
- **Compliance checking** of the norms with the processes
- **Legal reasoning** using integrated approach
- **Visualization** and **network analysis**
- **Case-law analysis**
- **Legal citations** harmonization between different legal documents and legal traditions
Legal documents in Civil Law

Legal documents in Common Law

http://www.legislation.gov.uk/developer/formats
“USLM is designed to be consistent with Akoma Ntoso to the extent practicable. Many of the element and attribute names in USLM match the Akoma Ntoso equivalents. As Akoma Ntoso becomes a standard, and as demand for it emerges, it should be possible to produce an Akoma Ntoso XML rendition of the United States Code through a simple transformation.”

Case-Law

• Akoma Ntoso 3.0 includes semantic markup of the judgments – Mechanisms for managing privacy and anonymization

• Shepard's method qualification of citations
Akoma Ntoso example

```xml
<akomantoso xmlns="http://www.akomantoso.org/1.0">
  <judgment>
    <meta>
      Metadata annotation by editors
      Ontology annotation by editors
      Workflow metadata by the system
      Analysis metadata by the scholar
    </meta>
    <header>
      Authorial content by the author
    </header>
    <preamble>
      Authorial content by the author
    </preamble>
    <judgementBody>
      Authorial content by the author
    </judgementBody>
    <attachments>
      Authorial content by the author
    </attachments>
  </judgment>
</akomantoso>
```

Signature of the editor

Signature of the author

FRBR prescriptive value = false
FRBR authoritative value = true
Preservation
Success stories of Akoma Ntoso

- Senate of Brazil (act, bill, consolidation, point-in-time)
- **European Parliament** (bill and amendments)
- Library of Congress of Chile (bill and debates)
- Senate of Italy (bill publication in open data)
- Parliament of Uruguay (bill workflow)
- US Code Consolidation service (code management)
- State of California (xml standard for document management)
- Hong Kong City State (xml standard for document management)
- Federal Chancellery of Switzerland (publication in gazette)
- High Court of Cassation of Italy (xml standard for document management)
- UK The National Archives – UK and Schottish Parliament
- FAO - UN
- South Africa SAFLII [http://www.saflii.org/content/partners](http://www.saflii.org/content/partners)
- **US Code, GPO, House of Representatives and Senate**
OASIS TC Workflow

FIRST STEP
- Working Draft
- Committee Specification
- Public Review
- Committee Specification

SECOND STEP
- Statements of Use
- Candidate standard
- Public Review
- Open for 60 days

THIRD STEP
- Three use cases

FORTH STEP
- Balloting
- OASIS Stand.

Full Majority Vote
Full Majority Vote
Open for 30 days
Special Majority Vote

JOB DONE
Conclusions

• We need an ecosystem of standards for modelling legal knowledge information.

• Akoma Ntoso is a robust Legal XML standard for legal open document representation.

• LegalRuleML integrates Akoma Ntoso creating an ecosystem for managing legal norms using formal methods. Provide a computable model for large KB-rules.

• LegalCiteM enriches Akoma Ntoso and LegalRuleML with universal meta model for representing citations.

• Goal: empowering machine-readable legal knowledge as “source of law”, guaranteeing integrity, authoritativenss, authenticity, persistence over time.