2018-12-08 | NUI Galway

EADH 2018 "Data in Digital Humanities"

Data Modeling in Legal History

Slides: https://rg-mpg-de.github.io/data-modeling-galway-2018-12

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LEGAL HISTORY

- ▸ Documents (focus of this presentation)
- ▸ Normativity
- ▸ Conflict (-ing interpretations)

STANDARDS

- ▸ xml
- ▸ ontology
- ▸ taxonomy

STANDARDS - DH / APPLICABLE LAW

- ▸ xml - TEI / AKN
- ▸ ontology - CIDOC CRM / UNDO (Allot/LKIF)
- ▸ taxonomy - LCSH? Eurovoc?

AKOMA NTOSO (AKN)

- ▸ * 2004: UN/DESA, Africa i-Parliaments Action Plan
- ▸ OASIS standard since 2018
- ▸ Parliamentary, legislative, judicial documents
  - ▸ Parliaments: Kenya, Uruguay, EU
  - ▸ Courts: Italian High Court of Cassation
  - ▸ Other: Research (EUCases), Civil Soc. (SayIt), Commercial (LexisNexis)

DESIGN PRINCIPLES

- ▸ Separate authoritative and other text
- ▸ Track document's lifecycle
- ▸ Semantically anonymous
- ▸ Agnostic wrt tools / infrastructure
  (see e.g. AKN's IRI naming convention)

```xml
 7            </p>
 8            <div class="floatLeft">
 9                <p>
10                    <docDate date="1784-03-15">1783, March 15.</docDate>
11                </p>
12            </div>
13        </header>
14    <preamble>
15        <section>
16            <num>Sec. I.</num>
17            <p>
18                Whereas the ... <organization refersTo="#congress">Congress of the
19                United States</organization>, by their
20                <ref eId="ref_1" href="/akn/us/act/1783-05-02/nn">resolution of the
21                <date date="1783-05-02">second day ... </date></ref>,
22                have recommended ... to secure to the
23                <role refersTo="#author">authors</role> ...
24                of any new books ... the <term refersTo="#copyright">copy
25                right</term> of such books for a certain time.
26            </p>
27        </section>
28        [...]
29    </preamble>
30    <body>
31        <section>
32            <num>Sec. III.</num>
33            <p>
34                <formula refersTo="#enactingFormula">Be it enacted, ...</formula>,
35                That from and after the passing of this act, the author ...
36                of any book ... shall have the
37                <span eId="span_1" refersTo="#copyright">exclusive right
38                of ... </span> within this State for the term of
39                <quantity normalized="14y" refersTo="#timespan">fourteen
40                years</quantity> ... and if any person or persons ...
41                shall presume to print ... without the consent of the
42                author ..., every such person ... shall ... pay
43                to the author ... <quantity refersTo="#fine">double the
44                value of all the copies ... </quantity>...
45            </p>
46        </section>
47        [...]
48        <signature>
```

```xml
            <FRBRname eId="FullName" value="Pennsylvania Act for the encouragement an
            <FRBRprescriptive value="true" />
            <FRBRauthoritative value="true" />
        </FRBRWork>
        <FRBRExpression>
            <FRBRuri value="/akn/us-pa/act/1784-03-15/nn/eng@"/>
            <FRBRauthor refersTo="#usCopyrightOffice" as="#editor"/>
            <FRBRlanguage language="eng"/>
        </FRBRExpression>
        <FRBRManifestation>
            <FRBRuri value="/akn/us-pa/act/1784-03-15/nn/eng@/.xml"/>
            <FRBRdate date="2018-12-01" name="Generation"/>
            <FRBRauthor refersTo="#awagner" as="#editor"/>
            <FRBRformat value="xml"/>
        </FRBRManifestation>
    </identification>
    <publication name="copyrightEnactments" date="1978" showAs="Copyright Enactments.
    <classification source="#awagner">
        <keyword value="copyright" showAs="Copyright" dictionary="Eurovoc" href="/Eur
    </classification>
    <analysis source="#awagner">
        <otherReferences>
            <alternativeReference for="#ref_1"  refersTo="#loc" href="http://www.copy
            <implicitReference    for="#span_3" href="/akn/us/act/1783-05-02/nn/!mair
            <alternativeReference for="#span_3" refersTo="#loc" href="http://www.copy
        </otherReferences>
    </analysis>
    <analysis source="#someoneelse">
        <otherReferences>
            <implicitReference    for="#span_3" href="/akn/us/act/1783-10-10/nn/!mair
            <alternativeReference for="#span_3" href="http://www.somewhereelse.org/re
        </otherReferences>
    </analysis>
    <references source="#awagner">
        <TLCPerson eId="awagner" href="/akn/ontology/person/akn/awagner" showAs="Andr
        <TLCPerson eId="pzlloyd" href="/akn/ontology/person/akn/pzlloyd" showAs="Pete
        <TLCOrganization eId="usCongress" href="/akn/ontology/organization/akn/usa.pa
        <TLCOrganization eId="usCopyrightOffice" href="/akn/ontology/organization/akr
        <TLCOrganization eId="paGeneralAssembly" href="/akn/ontology/organization/akr
        <TLCLocation eId="philadelphia" href="/akn/ontology/location/us-pa/philadelph
        <TLCRole eId="editor"   href="/akn/ontology/role/editor" showAs="Editor"/>
        <TLCRole eId="author"   href="/akn/ontology/role/author" showAs="Author"/>
```

FINDINGS

Much of that is possible with TEI as well:

- ▸ <persName>, <placeName>, <roleName>, <term>
- ▸ @type-attributes
- ▸ stand-off markup of analytical information

Can AKN's FRBR approach capture historically handed down docs?

ASIDE: ONTOLOGIES

REQUIREMENTS

learned from CIDOC CRM, ALLOT, UNDO, LKIF-Core, Prov-O, …

- Actions & Processes & Agents & Roles … & temporal indexes
- Keep track of assertions' provenances
- Use instances of general classes (try to stay in the ABox)
- Defeasible logic

LESSONS LEARNED

(for legal history)

- TEI is fine after all
- In xml, keep analysis in one place
- There, refer to standard/online taxonomies/thesauri
- Top-level concepts:
  Documents, persons, organizations, roles, concepts, terms, events
- ... in xml as well as in ontologies
- Modeling behavior is still not practical!

Go raibh maith agat! / Thank you!

Presentation made using

impress.js

View the presentation online:

https://rg-mpg-de.github.io/data-modeling-galway-2018-12

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