Dual Textuality of Law

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The roots of the presentation

• Granularity levels in a legal documentation computer system
  – What is the smallest entity?
    • The whole legal text
    • Article
    • Sentence
    • Word
Legal informatics = a science of making a bridge

• “Dual textuality” means that language appears in two poles:
  – Law
    • In a broad sense; as a phenomenon
  – Representation of law
Layers of law

10. Langue
- Linguistic system

9. Legal act
- Speech act
- Law
- Validity
- Institutional “ought”

8. Form

7. Sentence formations
- Abstracts, norms

6. Sentence
- Unit of communication
- Verbal “ought”

5. Phrase
- Syntax

4. Word
- Unit of thinking
- Term
- Thesauri, ontologies

3. Syllable
- Acoustics

2. Letter
- 2-D. With/without semantics

1. Dot
- Zero dimension

No content meaning
Representations of law

A. Document representation
- Granularity: sentence, paragraph, document

B. Syntactic representation
- Logical notation
- XML, UML
- Graphical notation

C. Semantic representation
- Situative representations
- if state of affairs
  then legal consequence
- Fact-norm, subsumption
- Ontologies

D. Pragmatic representation
- Document = legal act, 9=D
- Actions of players in time
Building a bridge

4. Word
5. Phrase
6. Sentence
7. Sentence formations
8. Form
9. Legal act

A. Document representation
- Granularity:
  - sentence, paragraph, document

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Institutional meaning

Content meaning
Two ways (perspectives)

1. **Legal expert system**
   (intelligent legal information system)
   - A law, or
   - A normative system
   - Legal

2. **Computer system**
   (legal/smart machine; “code is law”; technology as a regulative tool;
   techno-digital normativity; digital embodiment of legal rules)
   - Distinction between the actual and the ideal
   - Forces actuality and ideality to coincide
   - Regulation as a specification of how the system should operate
   - Systems specification scenario

Building multiple kinds of bridges

1. Legal expert system
   A. Document representation
   B. Syntactic representation
   C. Semantic representation
   D. Pragmatic representation

2. Computer system
   A. Document representation
   B. Syntactic representation
   C. Semantic representation
   D. Pragmatic representation
Multibrige
Schweighofer's 8 views/4 methods/4 syntheses model

- **8 views**
  - Representations of law
    - 1. Text corpus view
    - 2. Metadata view
    - 3. Citation network view
    - 4. User view
    - 5. Logical view
    - 6. Ontological view
    - 7. Visualization view
    - 8. Argumentation view

- **4 methods**
  - Legal methodology
    - 1. Interpretation (search, reading, understanding)
    - 2. Documentation (search, processing)
    - 3. Conceptual and logical analysis
    - 4. Facts analysis

- **4 syntheses**
  - Types of products
    - 1. Commentary / handbook
    - 2. Dynamic electronic legal commentary
    - 3. Citizens information
    - 4. Case-based synthesis
Different tasks

- **Legislative**
  - Search, retrieval
  - Automatic consolidation
  - Metadata
    - EUR-Lex, cf. Francesconi
- **Judicative**
  - Case law vs. statute law
  - Predicting legal outcomes
- **Executive**
  - e-Government
  - e-Contracts

A landscape of legal informatics
Different representations of law

• Perspectives
  – Lawyer
cf. Kevin Ashley 2017
  – Computer scientist
cf. Thorne McCarty 2017,
https://www.researchgate.net/publication/321335588_Finding_the_Right_Balance_in_Artificial_Intelligence_and_Law
  • Rule-based, etc.
  • “Handcrafted knowledge”,
  “statistical learning”

• Levels of abstraction
Conclusions

• We depart from the question “What is the smallest entity?”

• We arrive at a metaphor of legal informatics
  – A set of bridges from law to representations
Thank you

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http://jusletter-it.weblaw.ch/visualisierung/