HOW SEMANTIC PROCESSING COULD IMPROVE ONLINE LEGAL DATABASES?

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INTRODUCTION

- The spread of online legal databases
- Easier accessibility of legal data
- But legal information crisis
- This makes the legal research task time-consuming and labor-intensive
  - Over-inclusivity
  - Under-inclusivity
  - Homogeneity
FOLLOWING STRUCTURE OF THE PRESENTATION

- Information extraction and Named Entity Recognition
- Semantic processing
- Text processing pipelines and frameworks
  - Digital-Twin-Distiller
- Conclusion
INFORMATION EXTRACTION AND NAMED ENTITY RECOGNITION

- The meaning of information extraction
- The meaning of NER
- Main areas of use in the field of law
  - Automatical information entity retrieval
  - Citation networks
- Limitation: explicit content with well-defined regularity
SEMANTIC PROCESSING

- The essence of semantic processing
- Main areas of use in the field of law
  - Automatic categorization
  - Automatic summary generation
- New possibilities in legal research
  - Increase the value of legal databases
  - Deep analyzes of legal documents
TEXT PROCESSING PIPELINES AND FRAMEWORKS

- A lot of possible AI methods for legal databases
- Need to process the different legal text in a customizable way
- The essence of text processing pipelines
- Eg., Digital-Twin-Distiller: https://github.com/montana-knowledge-management/digital-twin-distiller
CONCLUSION

- NER: automatic legal information retrieval and networks of legal documents
- Semantic processing: deep analysis of legal text and legal data
- Text processing pipelines: integrate the positives of different methods
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