

# Proceedings of the Sixth Workshop on Automated Semantic Analysis of Information in Legal Texts

ASAIL 2023

## Preface

Researchers have long been developing tools to aggregate, synthesise, structure, summarise, and reason about legal norms and arguments in texts. Current dramatic advances in natural language processing, text and argument mining, information extraction, and automated question answering are changing how automatic semantic analysis of legal rules and arguments will be performed in the future. In particular, the recent breakthrough in natural language processing brought about by neural network models, including transfer learning using complex language models, has created immense new potential for leveraging legal text for technology supporting legal practice, research, argumentation, and decision making. At the same time, increasing awareness of the mandate of ethical use of AI is fuelling a debate about the requirements of such systems and motivates important exploratory work on explainable and justifiable AI that is particularly crucial for the legal domain. The ASAIL workshop provides a forum for the proliferation of exciting ideas that advance the field of semantic analysis of legal texts.

The Sixth Workshop on Automated Semantic Analysis of Information in Legal Texts (ASAIL 2021) will be held in-person on 23rd June, 2023, in Braga, Portugal. It will be held in conjunction with the 18th International Conference on Artificial Intelligence and Law (ICAIL 2023). The purpose of the workshop is to provide a dedicated venue for legal NLP related work for which there has been an increasing number of AI & Law conference submissions. The workshop received 24 submissions. 17 papers were accepted for publication and presentation, with 12 paper accepted as full papers, and 5 papers accepted as short papers following peer-review. The final workshop programme consists of 4 presentation sessions that correspond to the workshop proceedings' contents sessions, which divide the papers along the following themes:

- Session 1: Language Models in the Legal Domain
- Session 2: Automatic Legal Knowledge Extraction
- Session 3: Applied Legal Case Analysis
- Session 4: Structured Reasoning in the Legal Context

The papers presented are contained in this volume.

### 09:00 - Workshop Opening

#### 09:05-10:35 – Session 1: Language Models in the Legal Domain

**Chair: Hannes Westermann**

- (Long paper) Can GPT-4 Support Analysis of Textual Data in Tasks Requiring Highly Specialized Domain Expertise? *Jaromir Savelka, Kevin Ashley, Morgan Gray, Hannes Westermann and Huihui Xu.*
- (Short paper) Towards Meaningful Paragraph Embeddings for Data-Scarce Domains: A Case Study in the Legal Domain. *Elize Herrewijnen and Dennis Craandijk.*
- (Short paper) Enhancing Pre-Trained Language Models with Sentence Position Embeddings for Rhetorical Roles recognition in Legal Opinions. *Anas Belfathi, Nicolas Hernandez and Laura Monceaux.*
- (Long paper) Automatic Rhetorical Roles Classification for Legal Documents using LEGAL-TransformerOverBERT. *Gabriele Marino, Daniele Licari, Praveen Bushipaka, Giovanni Comandé and Tommaso Cucinotta.*

- Panel discussion on key questions and open problems for Language Models in the Legal Domain.

#### 10:35-11:00 – Coffee Break

#### 11:00-13:00 – Session 2: Automatic Legal Knowledge Extraction

Chair: Jack Mumford

- (Long paper) Bridging the Gap: Mapping Layperson Narratives to Legal Issues with Language Models. *Hannes Westermann, Sébastien Meeùs, Mia Godet, Aurore Troussel, Jinzhe Tan, Jaromir Savelka and Karim Benyekhlef.*
- (Long paper) Taking the Law More Seriously by Investigating Design Choices in Machine Learning Prediction Research. *Cor Steging, Silja Renooij and Bart Verheij.*
- (Long paper) Semantic Extraction of Key Figures and Their Properties from Tax Legal Texts Using Neural Models. *Daniel Steinigen, Marcin Namysl, Markus Hepperle, Jan Krekeler and Susanne Landgraf.*
- (Long paper) Contrast is All You Need. *Burak Kilic, Floris Bex and Albert Gatt.*
- (Long paper) Organizing the Unorganized: A Novel Approach for Transferring a Taxonomy of Labels into Flat-Labeled Document Collections. *Michele Colombino, Laurentiu Jr Marius Zaharia, Giorgia Iacobellis, Rachele Mignone, Ivan Spada, Chiara Bonfanti, Emilio Sulis, Luigi Di Caro and Guido Boella.*
- Panel discussion on key questions and open problems for Automatic Legal Knowledge Extraction.

#### 13:00-14:00 – Lunch Break

#### 14:00-15:30 – Session 3: Applied Legal Case Analysis

Chair: Daphne Odekerken

- (Long paper) Chasing the invisible in the grammar of repetitions: a network analysis approach to fiscal State aids. *Galileo Sartor, Piera Santin and Luigi Di Caro.*
- (Short paper) Applying NLP to support legal decision-making in administrative appeal boards in the EU. *Henrik Palmer Olsen, Malte Højmark-Bertelsen and Sebastian Schwemer.*
- (Long paper) LexKey: A Keyword Generator for Legal Documents. *Benjamin Cérat, Olivier Salaün, Nored-dine Ben Jillali, Marc-André Morissette, Isabela Pocovnicu, Emma Elliott and François Harvey.*
- (Short paper) CaseScope: An enhanced search tool for European Court cases information on submission. *Alexandre Correia, Pedro Evangelista, Nádia Soares, Eugénio Rocha and Cláudio Teixeira.*
- Panel discussion on key questions and open problems for Applied Legal Case Analysis.

#### 15:30-16:00 – Coffee Break

#### 16:00-17:35 – Session 4: Structured Reasoning in the Legal Context

Chair: Francesca Lagioia

- (Long paper) Toward Implementation Science: A Case Study Using LA-MPS to Research Argument Elements at Scale. *Vern Walker and Stephen Strong.*
- (Long paper) Argumentative Segmentation Enhancement for Legal Summarization. *Huihui Xu and Kevin Ashley.*
- (Short paper) Extracting ODRL Digital Right Representations from License Texts using AMR. *Malo Revel, Aurélien Lamercerie, Annie Foret and Zoltan Miklos.*
- (Long paper) Induction of Narrative Models for Legal Case Elicitation. *Karl Branting, Sarah McLeod, Bryant Park, Karine Megerdooimian and Charles Horowitz.*

- Panel discussion on key questions and open problems for Structured Reasoning in the Legal Context.

### **17:35 - Workshop Close**

The organising committee expresses its sincere gratitude to all authors for their submissions and participation in the workshop, to the advisory board for their sage advice, to the program committee for its diligent reviewing, and to the workshop attendees.

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