

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

ASAIL 2025

## Preface

Researchers have long developed tools to aggregate, synthesise, structure, summarise, and reason about legal norms and arguments expressed in text. Rapid advances in machine learning (ML) – particularly in natural language processing (NLP), information extraction, argument mining, and question answering – are reshaping how semantic analysis of legal rules and arguments can be performed. Recent progress in large language models and transfer learning has further expanded the range of tasks that can be supported, from legal research and drafting assistance to structured representations that enable downstream reasoning. At the same time, the legal domain places especially strong demands on accuracy, transparency, and accountability. Growing attention to the ethical use of AI therefore motivates research on explainable and justifiable systems, as well as on evaluation methodologies that make model behaviour more reliable and auditable. The ASAIL workshop series provides a forum for presenting and discussing such advances in the automated semantic analysis of legal texts.

The Seventh Workshop on Automated Semantic Analysis of Information in Legal Texts (ASAIL 2025) was held in person on 16 June 2025 in Chicago, USA, in conjunction with the 20th International Conference on Artificial Intelligence and Law (ICAIL 2025). The workshop aims to provide a dedicated venue for research applying NLP and broader ML techniques to the semantic analysis of legal texts, reflecting the growing interest in these topics within the AI & Law community. ASAIL 2025 received nine submissions; eight papers were accepted after peer review (five long papers and three short papers). The programme comprised four themed sessions, mirrored in the organisation of this volume:

- Session 1: Evaluating & Specializing LLMs
- Session 2: Structure & Explainability in Legal AI
- Session 3: Neuro-Symbolic & Logical Approaches
- Session 4: Information Extraction & Datasets

In addition to the accepted papers, the workshop included presentations of work in progress based on submitted abstracts. This volume contains the peer-reviewed papers presented at the workshop.

### 09:00 - Workshop Opening

#### 09:10-10:40 – Session 1: Evaluating & Specializing LLMs

**Chair: Jack Mumford**

- (Long paper) Measuring Faithfulness and Abstention: An Automated Pipeline for Evaluating LLM-Generated 3-ply Case-Based Legal Arguments. *Li Zhang, Morgan Gray, Jaromir Savelka, and Kevin Ashley.*
- (Long paper) Semantic Specialization of Legal LLMs via Large-Scale Fine-Tuning on Jurisdictional MCQs. *Hsuan-Lei Shao.*
- (Abstract) LLMs and Legal Reasoning: Where has Legal Knowledge Gone? *Kevin Ashley.*
- (Long paper) Semantic Evaluation of Legal Essay Reasoning with Transfer-Learned LLMs: A Crowdsourced Elo Framework. *Ying-Chu Yu, and Hsuan-Lei Shao.*
- Author panel discussion on key questions and open problems for Evaluating & Specializing LLMs.

**10:40-11:10 – Coffee Break**

**11:10-13:00 – Session 2: Structure & Explainability in Legal AI**

**Chair: Francesca Lagioia**

- (Long paper) Incorporating Legal Structure in Retrieval-Augmented Generation: A Case Study on Copyright Fair Use. *Justin Ho, Alexandra Colby, and William Fisher.*
- (Short paper) Detecting Purpose Language in State Regulations. *Matthew Carey, Chandan Aggarwal, Royce Koh, Cindy Zhang, and Sylvia Kwakye.*
- (Short paper) Explainable NLLP: Advancements in Explainable AI for Natural Legal Language Processing. *Lucas Resck, Felipe Moreno-Vera, Tobias Veiga, Gerardo Paucar, Ezequiel Fajreldines, Guilherme Klafke, Luis Gustavo Nonato, and Jorge Poco.*
- (Abstract) Bridging Statutes and Precedent: A Rule-Tree & LLM-Driven Pipeline for Case-Law Analysis. *Hannes Westermann.*
- (Abstract) Transparent and trustworthy AI for legal document generation. *Gabor Recski.*
- Author panel discussion on key questions and open problems for Structure & Explainability in Legal AI.

**13:00-14:00 – Lunch Break**

**14:00-15:30 – Session 3: Neuro-Symbolic & Logical Approaches**

**Chair: Hannes Westermann**

- (Long paper) From Legal Texts to Defeasible Deontic Logic via LLMs: A Study in Automated Semantic Analysis. *Elias Horner, Cristinel Mateis, Guido Governatori, and Agata Ciabattoni.*
- (Abstract) Towards a Neuro-Symbolic Approach to Legal Compliance Checking: Patterns for Deontic Norms Representation and Reasoning. *Enrico Francesconi.*
- (Abstract) Translating Natural Language Building Regulations into SHACL DL with a LLM. *Dominic Love, and Adam Wyner.*
- (Abstract) A Neuro-Symbolic Approach to Legal Textual Entailment. *Cor Steging, and Ludi van Leeuwen.*
- Author panel discussion on key questions and open problems for Neuro-Symbolic & Logical Approaches.

**15:30-16:00 – Coffee Break**

**16:00-17:45 – Session 4: Information Extraction & Datasets**

**Chair: Francesca Lagioia**

- (Short paper) What Are the Facts? Automated Extraction of Court-Established Facts from Opinions of Criminal Courts. *Klára Bendová, Tomáš Knap, Jan Černý, Vojtěch Pour, Ivana Kvapilíková, Jaromír Šavelka, and Jakub Drápal.*
- (Abstract) Unsupervised Learning for Creating Labeled Datasets for Legal Text Classification. *Shashank Chakravarthy, Anna Wilbik, and Gijs van Dijck.*
- (Abstract) Czech Constitutional Court Decisions Semantic Search. *Tereza Novotná.*
- (Abstract) Citation Context - Intelligent Datasets for Case Law Retrieval. *Jack Mumford.*
- (Abstract) Generating Legal Problems for Access to Justice: Exploring the Use of GenAI for Legal Query Formulation. *Lyra Hoeben-Kuyl.*
- Author panel discussion on key questions and open problems for Information Extraction & Datasets.

## 17:45 - 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 all the many workshop attendees for their thoughtful engagement.

### Organising Committee

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