The First Argument Mining and Empirical Legal Research Workshop (AMELR 2025)

Tomáš Koref[1,2], Lena Held[3,4] and Ivan Habernal[4]

[1]*Center for Critical Computational Studies, Goethe University Frankfurt, Frankfurt am Main, Germany*
[2]*Department for Legal Theory and Legal Doctrines, Faculty of Law, Charles University, Prague, Czechia*
[3]*Trustworthy Human Language Technologies, Technical University of Darmstadt, Darmstadt, Germany*
[4]*Trustworthy Human Language Technologies, RC-Trust & Ruhr University Bochum, Bochum, Germany*

Preface

The First *Argument Mining and Empirical Legal Research Workshop* (AMELR) took place as part of *Conference on Artificial Intelligence and Law* 2025 (ICAIL) in Chicago. The workshop focused on the application of natural language processing to detect and analyze legal arguments across jurisdictions and legal families. It addressed legal argument mining (LAM) as a new tool for studying reasoning patterns, interpretative theories or ideological biases in court judgments and other legal texts. The workshop brought together experts from computer science, AI & Law, legal theory, and empirical legal studies to address critical challenges of LAM: overcoming the complexity of the legal domain, building new datasets, improving models' performance, ensuring reproducibility, and integrating LAM into empirical legal research. We hosted 5 invited talks and 7 paper presentations. The workshop included leading scholars in the field and the contributions showcased the field's diversity and innovation. Among the invited talks, Kevin Ashley discussed how traditional legal argument schemes can guide modern AI in generating case-based legal arguments. Jed Stiglitz presented his work on quantifying judicial reasoning in U.S. Supreme Court opinions, revealing patterns in "formal" and "grand" reasoning. Jaromír Šavelka explored the role of human-AI interaction in empirical legal research, while Jonathan Choi used LLMs to analyze the usage of canons of statutory interpretation across the Supreme Court's history, uncovering previously unknown patterns. Daniel Chen examined how LLM agents can be aligned with human economic and moral preferences, demonstrating strategies to reduce deviations from rational and ethical decision-making. This volume captures the presented papers, workshop's discussions and contributions. We thank all participants for their valuable insights as well as all the participating PC members for their reviews. We are also grateful to ICAIL organizers, particularly Juliano Maranhão and Dan Linna, for perfectly organizing the conference and providing the safe harbor for the workshop. The workshop was organized as part of an ongoing collaboration between the Center for Critical Computational Studies and TrustHLT Group. We look forward to the continued advancement of LAM.

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Tomáš Koref
Lena Held
Ivan Habernal

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Organizing Team

- Tomáš Koref (Center for Critical Computational Studies - C³S, Goethe University Frankfurt am Main and Charles University)
- Lena Held (TrustHLT Group, Technical University Darmstadt)
- Ivan Habernal (TrustHLT, Ruhr University Bochum)

Program Committee

- Katie Atkinson (University of Liverpool)
- Wolfgang Alschner (University of Ottawa)
- Christoph Burchard (Goethe-University Frankfurt am Main)
- Daniel Chen (Harvard University/Toulouse School of Economics)
- Arthur Dyevre (KU Leuven)
- Gijs van Dijck (Maastricht University)
- Ivan Habernal (Ruhr-Universität Bochum)
- Jakub Harasta (Masaryk University)
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- Prakash Poudyal (Kathmandu University)
- Jaromir Savelka (Carnegie Mellon University)
- Michal Soltes (Charles University)
- Bart Verheij (University of Groningen/Stanford University)

Website

More information and the workshop schedule can be found on the website: https://www.c3s-frankfurt.de/what-we-do/eventdetail/argument-mining-and-empirical-legal-research-amelr

Acknowledgments