



## 19th International Conference on Artificial Intelligence and Law - ICAIL 2023

19th-23rd June 2023

Conference Venue:

University of Minho, Law School, Campus de Gualtar (Building 17), Braga, Portugal

# ICAIL 2023

## ICAIL 2023

INTERNATIONAL CONFERENCE ON ARTIFICIAL INTELLIGENCE AND LAW

19<sup>th</sup> – 23<sup>rd</sup> JUNE 2023



### 19th International Conference on Artificial Intelligence and Law - ICAIL 2023

19 to 23 June 2023 | University of Minho, Braga - Portugal

Since 1987, the International Conference on Artificial Intelligence and Law (ICAIL) has been the foremost international conference addressing research in Artificial Intelligence and Law. It is organized biennially under the auspices of the International Association for Artificial Intelligence and Law (IAAIL), and in cooperation with the Association for the Advancement of Artificial Intelligence (AAAI). The conference proceedings are published by ACM.

### Programme

- [June 19 - Monday - Workshop Day 1](#)
- [June 20 - Tuesday - Conference Day 1](#)
- [June 21 - Wednesday - Conference Day 2](#)
- [June 22 - Thursday - Conference Day 3](#)
- [June 23 - Friday - Workshop Day 2](#)

### June 19 - Workshop Day 1

8:30 - Participant Registration

#### 9:00 - 13:00 Workshop Morning Session

- Online Dispute Resolution and E-Justice - **Room 0.02**
- Computable Contracts in Theory and Practice - **Room 0.05**
- AI4AJ23 - Artificial Intelligence for Access to Justice - **Room 0.11**
- COLIEE 2023 - Competition on Legal Information Extraction/Entailment - **Room 0.01**
- LegalAI23 - Third International Workshop for AI and Intelligent Assistance for Legal Professionals in the Digital Workplace - **Room 0.10**
- MELT - Method for Evaluating Legal Technologies - **Room 0.04**

**13:00 - 14:00** - Lunch Break

**14:00** Workshop Afternoon Session

- Online Dispute Resolution and E-Justice (cont'd) - **Room 0.02**
- Computable Contracts in Theory and Practice (cont'd) - **Room 0.05**
- AI4AJ23 - Artificial Intelligence for Access to Justice (cont'd) - **Room 0.11**
- COLIEE 2023 - Competition on Legal Information Extraction/Entailment (cont'd) - **Room 0.01**
- LegalAlIA 2023 - Third International Workshop for AI and Intelligent Assistance for Legal Professionals in the Digital Workplace (cont'd) - **Room 0.10**
- AIR - Artificial Intelligence Regulation - **Room 0.04**

**19:00** Welcome Reception

University of Minho Rectory Garden, Largo do Paço, 4704-553 Braga

**June 20 - Conference Day 1**

**8:30** - Participant Registration

**8:45-9:00** - Opening Remarks

**9:00-10:30** - Empirical Legal Data Analysis 1

Time

- 9:00 The Perfect Victim: Computational Analysis of Judicial Attitudes towards Victims of Sexual Violence  
Habba, Eliya; Keydar, Renana; Bareket, Dan; Stanovsky, Gabriel
- 9:20 Gender Disparities in Child Custody Sentencing in Spain: a Data Driven Analysis  
Riera, Júlia; Solans, David; Karimi-Haghghi, Marzieh; Castillo, Carlos; Calsamiglia, Caterina
- 9:40 On predicting and explaining asylum adjudication  
Piccolo, Sebastiano Antonio; Katsikouli, Panagiota; Gammeltoft- Hansen, Thomas; Slaats, Tjits
- 10:00 Automatic Identification and Empirical Analysis of Legally Relevant Factors  
Gray, Morgan; Savelka, Jaromir; Oliver, Wesley; Ashley, Kevin
- 10:20 Conceptual Questions in Developing Expert-Annotated Data  
Ma, Megan; Waldon, Brandon; Nyarko, Julian

**10:30-11:00** - Coffee Break

**11:00-12:00** - Invited Talk 1 - Natalie Byrom, Justice Lab (UK)

**12:00-13:00** - Agent-based Models

Time

Using Agent-Based Simulations to Evaluate Bayesian Networks for Criminal  
12:00 Scenarios  
van Leeuwen, Ludi; Verheij, Bart; Verbrugge, Rineke; Renooij, Silja

Do agents dream of abiding by the rules? Learning norms via behavioral exploration  
and sparse human supervision  
12:20 Fratrič, Peter; Parizi, Mostafa Mohajeri; Sileno, Giovanni; Van Engers, Tom; Klous, Sander

Multi-agent logic for reasoning about duties and powers in private law  
12:40 Xu,Tianwen; Ju,Fengkui

**13:00-13:15 - Demo Pitches**

**13:15-14:15 - Lunch Break**

**14:15-15:00 - Demo Session**

**15:00-16:40 - Advances in Legal NLP 1**

Time

15:00 MultiLegalSBD: A Multilingual Legal Sentence Boundary Detection Dataset  
Brugger, Tobias; Stürmer, Matthias; Niklaus, Joel

Argumentation Structure Prediction in CJEU Decisions on Fiscal State Aid  
15:20 Santin, Piera; Grundler, Giulia; Galassi, Andrea; Galli, Federico; Lagioia, Francesca; Palmieri, Elena; Ruggeri, Federico; Sartor, Giovanni; Torroni, Paolo

Extraction and Classification of Statute Facets using Few-shot Learning  
15:40 Pawar, Sachin; Ali, Basit; Palshikar, Girish K.; Singh, Ramandeep; Singh, Dhirendra

JusticeBot: A Methodology for Building Augmented Intelligence Tools for Laypeople  
16:00 to Increase Access to Justice  
Westermann, Hannes; Benyekhlef, Karim

Combining a Legal Knowledge Model with Machine Learning for Reasoning with  
16:20 Legal Cases  
Mumford, Jack; Atkinson, Katie; Bench-Capon, Trevor

**16:40-17:10 - Coffee Break**

**17:10-18:30 - Legal Data Analysis Applications**

Time

17:10 Confidence Sequences for Evaluating One-Phase Technology- Assisted Review  
Lewis, David D.; Gray, Lenora; Noel, Mark

A Quantitative Evaluation of Trademark Search Engines' Performances through  
17:30 Large-Scale Statistical Analysis  
Vandamme, Thomas; Cabay, Julien; Debeir, Olivier

Beyond Readability with RateMyPDF: A Combined Rule-based and Machine Learning Approach to Improving Court Forms  
17:50 Steenhuis, Quinten; Willey, Bryce; Colarusso, David

Image Analysis Approach to Trademark Congestion and Depletion  
18:10 Haim, Amit; Kesari, Aniket  
sustain.AI: a Recommender System to analyze Sustainability Reports

18:20 Hillebrand, Lars; Pielka, Maren; Leonhard, David; Deußer, Tobias; Dilmaghani, Tim; Kliem, Bernd; Loitz, Rüdiger; Morad, Milad; Temath, Christian; Bell, Thiago; Stenzel, Robin; Sifa, Rafet

### **June 21 - Conference Day 2**

#### **9:00-10:20 - Large Language Models in the Law**

Time

9:00 Pre-trained Language Models for the Legal Domain: A Case Study on Indian Law  
Paul, Shounak; Mandal, Arpan; Goyal, Pawan; Ghosh, Saptarshi

9:20 Can GPT-3 Perform Statutory Reasoning?  
Blair-Stanek, Andrew; Holzenberger, Nils; Van Durme, Benjamin  
Legal Holding Extraction from Italian Case Documents using Italian- LEGAL-BERT

9:40 Text Summarization  
Licari, Daniele; Bushipaka, Praveen; Marino, Gabriele; Comandé, Giovanni; Cucinotta, Tommaso  
Legal Syllogism Prompting: Teaching Large Language Models for Legal Judgment

10:00 Prediction  
Jiang, Cong; Yang, Xiaolei  
Unlocking Practical Applications in Legal Domain: Evaluation of GPT for Zero-Shot

10:10 Semantic Annotation of Legal Texts  
Savelka, Jaromir

#### **10:20-11:00 - Coffee Break**

#### **11:00-12:00 - Invited Talk 2 - Daniel E. Ho, Stanford Law School**

#### **12:00-13:00 - Empirical Legal Data Analysis 2**

Time

Who really wrote Martin v. Hunter's Lessee? Applying a machine learning ensemble  
12:00 to uncover a Chief Justice's unethical behavior  
Chandler, Seth J.; Muenster, Emily A.; Lichtblau, Daniel

Uncovering Trauma in Genocide Tribunals: An NLP Approach Using the Genocide Transcript Corpus  
12:20 Schirmer, Miriam; Nolasco, Isaac Misael Olguín; Mosca, Edoardo; Xu, Shanshan; Pfeffer, Jürgen

12:40 Binding Language in Administrative Guidance Documents  
Haim, Amit

12:50 On the Semantic Difference of Judicial and Standard Language  
Behnke, Gregor; Wais, Niklas

**13:00-14:00** - Lunch Break

**14:00-15:00** - IAAIL General Meeting

**15:00-16:00** - Formal Models of Legal Reasoning 1

Time  
Justification, stability and relevance for case-based reasoning with incomplete  
15:00 focus cases  
Odekerken, Daphne; Bex, Floris; Prakken, Henry

15:20 Hierarchical Precedential Constraint  
van Woerkom, Wijnand; Grossi, Davide; Prakken, Henry; Verheij, Bart

15:40 Reasoning with hierarchies of open-textured predicates  
Canavotto, Ilaria; Harty, John

**16:00-16:30** - Coffee Break

**16:30-18:00** - Formal Models of Legal Reasoning 2

Time  
Argumentation Schemes for Legal Presumption of Causality  
16:30 Liepina, Rūta; Wyner, Adam; Sartor, Giovanni; Lagioia, Francesca

A Formal Framework for Combining Legal Reasoning Methods  
16:50 Prakken, Henry; Sartor, Giovanni

Model- and data-agnostic justifications with A Fortiori Case-Based Argumentation  
17:10 Peters, Joeri G.T.; Bex, Floris J.; Prakken, Henry

Analogical Reasoning, Generalization, and Rule Learning for Common Law  
17:30 Reasoning  
Blass, Joseph; Forbus, Kenneth D.

Whatever Happened to Hypotheticals?  
17:50 Bench-Capon, Trevor

**19:00** - Conference Dinner @ Hotel Melia, Av. Gen. Carrilho da Silva Pinto, 4715-380 Braga

**June 22 - Conference Day 3**

**9:00-10:30** - Legal Knowledge Representation

Time

9:00 ANGELIC II: An Improved Methodology for Representing Legal Domain Knowledge  
Atkinson, Katie; Bench-Capon, Trevor

9:20 Deontic Ambiguities in Legal Reasoning  
Governatori, Guido; Rotolo, Antonino

9:40 Identification of Legislative Errors  
Araszkiewicz, Michał; Francesconi, Enrico; Zurek, Tomasz  
Computable Contracts by Extracting Obligation Logic Graphs

10:00 Servantez, Sergio; Lipka, Nedim; Siu, Alexa; Aggarwal, Milan; Krishnamurthy, Balaji;  
Garimella, Aparna; Hammond, Kristian; Jain, Rajiv

10:20 On Normative Arrows and Comparing Tax Automation Systems  
Meessen, P.N.

**10:30-11:00** - Coffee Break

**11:00-12:00** - President's Address - Floris Bex, Utrecht University

**12:00-13:10** - Ethics, Explainability, Privacy

Time

12:00 Computational Accountability  
Hulstijn, Joris

12:20 Rebuilding 'ethics' to govern AI: How to re-set the boundaries for the legal sector?  
Unver, Mehmet B.

Automated Anonymization of Court Decisions Facilitating the Publication of Court

12:40 Decisions through Algorithmic Systems  
Terzidou, Kalliopi

13:00 Effects of XAI on Legal Process  
Nielsen, Aileen; Skylaki, Stavroula; Norkute, Milda; Stremitzer, Alexander

**13:10-14:15** - Lunch Break

**14:15-15:45** - Advances in Legal NLP 2

Time

14:15 Don't Use a Cannon to Kill a Fly: An Efficient Cascading Pipeline for Long  
Documents  
Li, Zehua; Guha, Neel; Nyarko, Julian

14:35 No Labels? No Problem! Experiments with active learning strategies for multi-class  
classification in imbalanced low-resource settings  
Steegh, Emiel; Sileno, Giovanni

14:55 Argument Mining with Graph Representation Learning  
Zhang, Gechuan; Nulty, Paul; Lillis, David

15:15 LeArNER: Few-shot Legal Argument Named Entity Recognition  
Lee, Shao-Man; Tan, Yu-Hsiang; Yu, Han-Ting

“What’s wrong with this product?” - Detection of product safety issues based on information consumers share online  
 15:25 Fuchs, Max; Jadhav, Amit; Jaishankar, Advaith; Cauffman, Caroline; Spanakis, Gerasimos

A Dataset of German Legal Reference Annotations  
 15:35 Darji, Harshil; Mitrović, Jelena; Granitzer, Michael

**15:45-16:15 - Coffee Break**

**16:15-17:35 - Advances in Legal NLP 3**

Time

The Dutch Law as a Semantic Role Labeling Dataset  
 16:15 van Drie, Romy A. N.; de Boer, Maaike H. T.; Bakker, Roos M.; Tolios, Ioannis; Vos, Daan

EQUALS: A Real-world Dataset for Legal Question Answering via Reading Chinese Laws  
 16:35 Chen, Andong; Yao, Feng; Zhao, Xinyan; Zhang, Yating; Sun, Changlong; Liu, Yun; Shen, Weixing

Improving Translation of Case Descriptions into Logical Fact Formulas using LegalCaseNER  
 16:55 Zin, May Myo; Nguyen, Ha Thanh; Satoh, Ken; Sugawara, Saku; Nishino, Fumihito

Analysing the Resourcefulness of the Paragraph for Precedence Retrieval  
 17:05 Sisodiya, Bhoomeendra Singh; Unnam, Narendra Babu; Reddy, P. Krishna; Das, Apala; Santhy, K.V.K.; Reddy, V. Balakista

On evaluating legal summaries with ROUGE  
 17:15 Steffes, Bianca; Rataj, Piotr; Burger, Luise; Roth, Lukas

Keyword-based Augmentation Method to Enhance Abstractive Summarization for Legal Documents  
 17:25 Nguyen, Huyen; Ding, Junhua

**17:35-17:50 - Closing Remarks**

**June 23 - Workshop Day 2**

**9:00 - 13:00 Workshop Morning Session**

- Doctoral Consortium - **Room 0.04**
- CAOAC 2023 - Computational Analysis of Apex Courts - **Room 0.05**
- ASAIL 2023 - Automated Semantic Analysis of Information in Legal Text - **Room 0.11**
- AI4Legs 2023 - AI for Legislation - **Room 0.10**
- Joint Workshop BEFAIR2023 – EMAI2023 – LoReTra2023 - **Room 0.01**
- ICT & Legal Education 2023 - Digital Education for Legal Profession - **Room 0.02**

**13:00-14:00** - Lunch Break

**14:00-18:00** Workshop Afternoon Session

- Doctoral Consortium (cont'd) - **Room 0.04**
- CAOAC 2023 (cont'd) - **Room 0.05**
- BEFAIR<sup>2</sup>+EMAI 2023 (cont'd) - **Room 0.01**
- ASAIL 2023 (cont'd) - **Room 0.11**
- AI4Legs 2023 (cont'd) - **Room 0.10**
- Electronic Discovery - **Room 0.02**

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## Organization

- University of Minho - Law School, JusGov - Research Center for Justice and Governance, Informatics Departments at Engineering School, Centro Algoritmi
- LASI - Intelligent Systems Associated Laboratory

## Chair team

- Program Chair: Matthias Grabmair, matthias.grabmair@tum.de
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