Curriculum Vitae et Studiorum

Name	**Andrea Galassi**
Year of Birth	1992
Citizenship	Italian
Affiliation	DISI, University of Bologna
Address	Viale del Risorgimento, 2, 40136 Bologna (BO) - Italy
E-mail	a.galassi@unibo.it
Web Pages	https://www.unibo.it/sitoweb/a.galassi
	https://site.unibo.it/nlp/en/people/andrea-galassi
ORCID ID	0000-0001-9711-7042

Short Bio

Andrea Galassi received the M.S. degree in Computer Engineering and the Ph.D. in Computer Science and Engineering from the University of Bologna (Italy), in 2017 and 2021 respectively. Since 2023 he has been employed as a *Junior Assistant Professor ("RTDA")* at the Department of Computer Science and Engineering (DISI) of the University of Bologna. He obtained National Scientific Qualification to the role of Associate Professor in Computer Engineering (ASN 2023-2025 sector 09/H1 II Tier, II quarter).

His research interests are focused on **Natural Language Processing** and **Machine Learning**, with particular attention to Trustworthy and Human-Centered AI, Argument Mining, Neuro-Symbolic approaches to machine learning, and Legal Analytics. His expertise spans different areas, with the general target of exploiting domain knowledge that is formally defined along with specific knowledge that can be acquired from data, especially from textual documents. Most of his research has been focused on the extraction, processing, and use of argumentative content; with applications that range from problems of information retrieval, such as ranking scientific documents or providing trustworthy answers in dialogues, to tasks of forecasting and classification, such as predicting the outcome of a legal judgment.

Contents

Position & Education

Qualifications and Certificates

- Nov 2024
  National Scientific qualification as associate professor
  Disciplinary field: 09/H1 - Information processing systems - Computer engineering

Record of Employment

- March 2023 – currently
  Junior assistant professor (RTDA) at Department of Computer Science and Engineering (DISI), University of Bologna, Italy
  Supervisor: Prof. Michela Milano
- January 2021 – February 2022
  Research Fellow at the Department of Computer Science and Engineering (DISI), University of Bologna, Italy
  Supervisor: Prof. Paolo Torroni
- Spring 2021
  Adjunct Professor at Department of Computer Science and Engineering (DISI), University of Bologna, Italy
- November 2021
  Collaborator with University of Modena and Reggio Emilia
  Project Leader: Prof. Marco Lippi
- April 2017 – October 2017
  Research Fellow at the Inter-departments Center for Health Sciences and Technologies (CIRI-HST), University of Bologna, Italy
  Supervisor: Prof. Federico Chesani

Education

- November 2017 - May 2021
  Ph.D. in Computer Science and Engineering, University of Bologna
  Final evaluation: Excellent (5/5)
  Thesis Title: Deep Networks and Knowledge: from Rule Learning to Neural-Symbolic Argument Mining
  Advisors: Prof. Paolo Torroni, Prof. Marco Lippi, Prof. Michela Milano
- December 2014 - March 2017
  Master Degree in Computer Engineering, University of Bologna
  Final evaluation: 110/110 cum laude
  Thesis Title: Symbolic versus sub-symbolic approaches: a case study on training Deep Networks to play Nine Men's Morris game
  Advisor: Prof. Paola Mello

- September 2011 - December 2014
  Bachelor Degree in Computer Engineering, University of Bologna
  Final evaluation: 106/110
  Thesis Title (translated): Handwritten writing analysis based on similarity search: distances and matching models comparisons
  Advisor: Prof. Ilaria Bartolini

Period spent abroad

- May 2024
  City University of London, London, United Kingdom;
  Supervisor: Artur d'Avila Garcez, Director of the Research Centre for Machine Learning

- February 2020 – August 2020
  Imperial College, London, United Kingdom;
  Supervisor: Francesca Toni, Professor in Computational Logic

- May 2018 – August 2018
  Stanford University, Palo Alto, U.S.A.;
  Supervisor: Margaret Hagan, Director of the Legal Design Lab

Professional Activities

Contribution to National & International Academic Research Projects

International Projects:

- **JUST-2022-EJUSTICE-101087342-POLINE: Principles Of Law In National and European VAT**
  Period: 2023 – 2024
  Website: https://site.unibo.it/poline/en
  Description: POLINE aims at developing an AI-powered pilot tool for the retrieval and analysis of judicial principles of law in the CJEU and national case-law in Value Added Tax (VAT). The development of the tool will be based on a multidisciplinary approach combining theory and practice of judicial decision-making; legal informatics methods; AI, machine learning, and NLP techniques The tool includes AI techniques for extracting, clustering and linking judicial principles of law. It covers the case-law of the CJEU and the Italian, Swedish and Bulgarian Supreme Courts and will be accessible to judges, other legal practitioners, tax policymakers and taxpayers.

  Andrea Galassi's responsibilities concern WP3, "Machine learning and NLP analysis", in particular tasks regarding the support to annotation and the extraction of legal principles from textual documents. His duties in this project include coordination with other WPs, the development of novel solutions, and the supervision of interns, students, and research fellows.

- **H2020-ICT-2018-825619-AI4EU: A European AI On Demand Platform and Ecosystem**
  Period: 2023 – present
  Website: https://cordis.europa.eu/project/id/825619
  Description: The EU-funded AI4EU is working to change Europe's place in this race, by building the first European AI On-Demand Platform and Ecosystem that will share resources, tools, knowledge, algorithms and more between Member States. It will help to increase innovation and technology transfer, accelerate the growth of start-ups and SMEs, and fulfill the needs of the European AI community. The project will implement eight pilots led by industrial partners to demonstrate the platform's capabilities.

  Andrea Galassi is among those responsible for the design and development of the Success Stories service, where companies can showcase how the use of AI has impacted their work.

- **H2020-ICT-2020-101017142-StairwAI: Stairway to AI: Ease the Engagement of Low-Tech users to the AI-on-Demand platform through AI**
  Period: 2022 – 2023
  Website: https://stairwai.nws.cs.unibo.it/about-project/
  Description: The StairwAI project targets low-tech users with the goal of facilitating their engagement on the AI4EU on-demand Platform. This will be achieved through a new service layer enriching the functionalities of the on-demand platform and containing: (1) a multi-lingual interaction layer enabling conversations with the Platform in the user's own language, (2) a horizontal matchmaking service for the automatic discovery of AI assets (tools, data sets, AI experts, consultants, papers, courses etc.) meeting the user business needs and, (3) a vertical matchmaking service that will dimension and provision hardware resources through a proper hardware provider (HPC, Cloud and Edge infrastructures).

Andrea Galassi is involved in work package 5, relative to horizontal matchmaking. In particular, his contribution revolves around the combination of machine-learning-based and knowledge-based techniques to automatically associate use case documents to available AI assets. He has also contributed to work package 8, writing deliverable 8.4 regarding the "International Networking Strategy".

- **H2020-ICT-2020-952026-HumanE AI Network**
  PERIOD: 2021 – present
  ROLE: Micro-Projects Principal Investigator
  WEBSITE: https://www.humane-ai.eu/
  DESCRIPTION: The objective of the HumanE-AI-Net network is to connect European research centers, universities, and industrial enterprises to develop robust, trustworthy AI systems that can 'understand' humans, adapt to complex real-world environments and interact appropriately in complex social settings.

  Andrea Galassi's primary focus lies within work package 5, which concerns the ethical, legal, and social challenges associated with artificial intelligence. Within this framework, he has made valuable contributions through the completion of four distinct micro-projects. For two of them, Andrea Galassi acted in the capacity of Principal Investigator (PI) after securing funding through a dedicated competitive call that involved peer review by consortium leaders and domain experts. He is also involved in the macro project "Learning with LLMs: Supporting complex reasoning, planning and argumentation, applied to providing educational guidance". So far, his work has resulted in 5 publications, among which one in a journal [J6, W3, W12, W13, C1]. Finally, he contributed to the project handbook, acting as co-editor of a section and author of two chapters.

- **JUST-JACC-EJU-AG-2020-1010074206-Adele: Analytics for DEcision of LEgal cases**
  PERIOD: 2021 – 2023
  WEBSITE: https://site.unibo.it/adele/en
  DESCRIPTION: Project ADELE is premised on the ongoing paradigm shift towards cognitive computing and human-centered AI which is transforming many socio-economic activities, including justice. The project applies legal analytics (LA) – a blend of data science, machine learning, and natural language processing techniques – to judicial decisions. It aims to develop methods to extract knowledge and engage in outcome predictions and there build a pilot tool to support legal research and decision-making processes in the judiciary.

  Andrea Galassi is part of the Natural Language Processing team of Unibo, which is mainly involved in the tasks of outcome prediction and argument mining. Besides contributing actively to the development of solutions, Andrea's duties include the supervision of interns and research fellows working on the project and the coordination with the team of legal experts of Unibo. His work led to the publication of one workshop article [W9] and one conference article [C4].

- **CLAUDETTE: "automated CLAUse DETectEr"**
  PERIOD: 2019 – present
  WEBSITE: http://claudette.eui.eu/
  DESCRIPTION: CLAUDETTE is an interdisciplinary research project hosted at the Law Department of the European University Institute. The research objective is to test to what extent is it possible to automate reading and legal assessment of online consumer contracts and privacy policies, to evaluate their compliance with EU's unfair contractual terms law and personal data protection law (GDPR), using machine learning and grammar-based approaches.

Andrea Galassi is involved in the development of machine-learning solutions to automatically classify segments of text. In particular, his work is focused on multi-lingual approaches that can exploit the knowledge acquired in one domain (the English language) and apply it in novel ones (other languages) through the projection of labels based on content similarity. His contribution has led to the publication of two conference articles [W11, C10] and one journal article [J2].

National Projects:

- **PE00000013 FAIR: Future Artificial Intelligence Research**
  Period: 2022 – present
  Website: https://future-ai-research.it/
  Description: The objective of the FAIR project is to contribute facing the research questions, methodologies, models, technologies, and ethical and legal rules to build AI systems capable of interacting and collaborating with humans, perceiving and acting in evolving contexts, to be conscious about their limits and capable to adapt to new situations, to be aware of the perimeters of safety and trust, and to be careful with the environmental and social impact that their creation and functioning may cause.

  Andrea Galassi is involved in workpackage 8.1 "Multi-scale learning and reasoning in pervasive AI systems". His research concerns the development of scalable, transferable, neuro-symbolic machine-learning techniques. He is also involved in work package 8.3, "Visual and Multimodal Perception in pervasive systems" and the transversal project 2, "Vision, Language and Multimodal Challenges", where he acts as task leader of T1.3, "Existing Textual and Multimodal Evaluation Data". He has published one conference paper [C7], three journal papers [J3, J4, J2], and he has co-organized a workshop [C6] related to the project.

- **PRIN20224TPEYC PRIMA: PRivacy Infringements Machine-Advice**
  Period: 2024 – present
  Description: The project concerns the law and practice of privacy policies from three different perspectives: normative (doctrinal), empirical (socio-legal), legal-informatics. In particular, it deploys analytics to detect and assess privacy policies' infringements. The project team combines all the different scientific, theoretical and methodological approaches into a new interdisciplinary synthesis (law, computing, legal informatics, AI, ML, legal theory, computer ethics).

  Andrea Galassi's duties in this project include the coordination with legal experts for the annotation of new resources, the development of novel solutions, and the supervision of interns, students, and research fellows. His work resulted in the publication of the following articles: [W1].

- **PRIN2017NCPZ22 LAILA: Legal Analytics for Italian Law**
  Period: 2022 – present
  Website: https://dsg.unibo.it/it/ricerca/progetti-di-ricerca/progetti-nazionali-e-di-ateneo/prin2017-laila-legal-analytics-for-italian-law
  Description: The project regards the application of Legal Analytics methods to a vast and heterogeneous set of legal information: legislations, contracts, and judgments. The purpose is the application of Artificial Intelligence, Machine Learning, and Natural Language Processing to extract legal knowledge, infer relationships, and produce data-driven forecasts.

  Andrea Galassi's duties in this project involve the research of new solutions, the supervision of interns, students and research fellows, and the coordination with the team of legal experts of Unibo. He is involved in the publication of two conference articles [W6, W8] related to this project.

- **FISR2020IP_01362 AMICA: Argument Mining In Covid-19 Articles**
  Period: 2021
  Website: http://amica.unimore.it/
  Description: The objective of the AMICA project was to exploit the argumentative content present in the scientific literature regarding Covid-19 to improve the retrieval of relevant and reliable articles. The project involved both medical and artificial intelligence experts and aimed to develop an argument mining-based search engine, specifically designed for the analysis of scientific literature related to Covid-19.

  Andrea Galassi contributed by designing possible solutions and supervising a post-graduate student. His work has led to the publication of two articles, one in a computer science conference [C8] and one in a medical journal [J5].

Funded Research:
Andrea Galassi acted as Principal Investigator or Co-Principal Investigator for the following funded projects:

- **Promoting Fairness and Diversity in Speech Datasets for Affective Computing**
  Source: HumaneAI-Net Consortium
  Call: Call for micro-projects 2023
  Peer reviewed: Yes
  Period: October 2023 – February 2024
  Amount: 29,300 € total, 20,000 € for Andrea's Institution
  Short Description: Critical review and meta-analysis of existing speech datasets for affective computing in the perspective of inclusivity, transparency, and fair use.

- **A Transparent and Explainable Dialogue System for Immigration Services**
  Source: HumaneAI-Net Consortium
  Call: Call for micro-projects 2023
  Peer reviewed: Yes
  Period: November 2023 – March 2024
  Amount: 32,000 € total, 20,000 € for Andrea's Institution
  Short Description: A transparent and explainable dialogue system for assisting immigrants and non-profit organizations on administrative and legal matters in Italy.

- **Argument Mining for Supporting Learning with Large Language Models**
  Source: HumaneAI-Net Consortium
  Call: Contribution to macro-projects
  Peer reviewed: Informal review by project coordinators
  Period: January 2024 – June 2024
  Amount: 30,000 € for Andrea's Institution
  Short Description: Use of Argument Mining to enhance and evaluate the ability of Large Language Models to reason, with application to the education context.

- **Neuro-symbolic Argument Mining on Legal Texts**
  Source: FAIR Foundation
  Call: Trustworthy AI Short Stay Exchange Program for Researchers Italy-UK
  Peer reviewed: Yes
  Period: Spring 2024

Amount: 2,500 € for Andrea
Short Description: A preliminary investigation regarding the application of neuro-symbolic frameworks to the problem of Argument Mining on Legal Texts.

Reviewer for Grants and Research Proposals

Andrea Galassi has served as a reviewer for national and international grants for the following institutions:

- National Science Centre (NCN) of Poland

Institutional Roles

Andrea Galassi covered the following roles:

- **Delegate for Equity, Inclusion and Diversity**
  Institution: Department of Computer Science and Engineering (DISI), University of Bologna
  Period: 2024 – ongoing

Program Chair & Organization Committees

Andrea Galassi has been **co-chair** of:

- CheckThat! Lab 2023, International Workshop on Fact-Checking
  Co-located with CLEF 2023, Conference and Labs of the Evaluation Forum
  September 2023, Thessaloniki, Greece
  Website: https://checkthat.gitlab.io/

Andrea Galassi has been a member of the **program committee** of:

- IEEE International Conference on Tools with Artificial Intelligence (ICTAI), from 2020 to 2023
- International Workshop on Natural Language Processing for Social Media (SocialNLP), in 2021
- Workshop on Argument Mining (ArgMining), in 2022
- International Conference on Natural Language & Information Systems (NLDB) in 2024
- European Conference on Artificial Intelligence (ECAI) in 2024

Presentations at Workshops & Conferences

Andrea Galassi has been **invited speaker** at the following international workshops and initiatives:

- 2nd EIC Portfolio Workshop on Inside the Ethics of AI Awareness
  Title of the intervention: "Towards an Ethical and Human-centric Artificial Intelligence: two case studies on fairness in Dialogue Systems and Speech Datasets"
  Uppsala, November 2024
  Organized by EIC Portfolio partners

- Touché: workshop on Argument Retrieval
  Title of the intervention: "Argumentative Ranking: Case Studies and Challenges"
  Bologna, September 2022
  Organized by Alex Bondarenko, Matthias Hagen, Martin Potthast, Benno Stein (Webis Group)
  Website: https://touche.webis.de/clef22/touche22-web/index.html
- Legal Hackathon Wales
  Title of the intervention: "Making legal documents more accessible through Natural Language Processing: analysis, explanations, and multilingualism"
  Hosted online, July 2022
  Organized by Legal Innovation Lab Wales
  https://www.youtube.com/watch?v=n9QMZQtNTQg&t=3s&ab_channel=LegalInnovationLabWales
- NLLP Talks, affiliated with the Natural Legal Language Processing Workshop
  Title of the intervention: "Cross-lingual Annotation Projection in Legal Texts"
  Hosted online, May 2021
  Organized by Catalina Goanta, discussed with Monika Leszczynska
  Website: https://nllpw.org/talks/

Andrea Galassi **presented his research** at the following workshops and conferences (national and international):

- FAIR General Conference, Naples (Italy), September 2024.
- 3rd International Workshop Deep Learning meets Ontologies and Natural Language Processing (DeepOntoNLP 2022), co-located with ESWC2022, Hersonissos (Greece), June 2022.
- Natural Legal Language Processing Workshop (NLLP 2021), co-located with EMNLP2021, Punta Cana (Dominican Republic), November 2021.
- 5th Workshop on Natural Language for Artificial Intelligence (NL4AI 2021), co-located with 20th International Conference of the Italian Association for Artificial Intelligence (AI*IA 2021), Online event, November 2021.
- 12th International Conference of the CLEF Association, (CLEF), Virtual Event, September 21-24, 2021,
- 28th International Conference on Computational Linguistics (COLING 2020), Barcelona (Spain) and Online, December 2020.
- 30th European Conference On Operational Research (EURO), Dublin (Ireland), June 2019.
- 5th Workshop on Argument Mining (ArgMining 2018), co-located with EMNLP 2018, Bruxelles (Belgium), November 2018.
- 16th Conference of the Italian Association for Artificial Intelligence (AI*IA 2017), Bari (Italy), November 2017.

Editorial Roles in Scientific Journals

Andrea Galassi is or has been a **associate editor** for the following journals:

- PlosONE in 2024

Referee Services in Scientific Journals & Conferences

Andrea Galassi is a **reviewer** for the following journals (J) and conferences (C):

- (J) Nature Scientific Reports
- (J) IEEE Transactions on Neural Networks and Learning Systems
- (J) IEEE Transactions on Emerging Topics in Computational Intelligence
- (J) IEEE Transactions on Artificial Intelligence
- (J) IEEE Transactions on Games
- (J) IEEE/ACM Transactions on Audio, Speech, and Language
- (J) IEEE Intelligent Systems
- (J) IEEE Journal of Biomedical and Health Informatics
- (J) IEEE Access
- (J) ACM Computing Surveys
- (J) Journal of Artificial Intelligence Research
- (J) Artificial Intelligence (Elsevier)
- (J) Computers in Human Behaviour (Elsevier)
- (J) Computers and Electrical Engineering (Elsevier)
- (J) Intelligent Systems with Applications (Elsevier)
- (J) Expert Systems with Applications (Elsevier)
- (J) International Journal of Approximate Reasoning (Elsevier)
- (J) Data in Brief (Elsevier)
- (J) Artificial Intelligence and Law (Springer)
- (J) Artificial Intelligence Review (Springer)
- (J) Knowledge and Information Systems (Springer)
- (J) Pattern Analysis and Applications (Springer)
- (J) Fundamenta Informaticae (IOS Press)
- (J) Information (MDPI)
- (J) Applied sciences (MDPI)
- (J) Data (MDPI)

- (J) Electronics (MDPI)
- (C) IJCAI International Joint Conference on Artificial Intelligence
- (C) ECAI European Conference on Artificial Intelligence
- (C) AAAI Conference on Artificial Intelligence
- (C) COLING International Conference on Computational Linguistics
- (C) Association for Computational Linguistics (ACL) Rolling Review
- (C) EMNLP Conference on Empirical Methods in Natural Language Processing
- (C) ACL Annual Meeting of the Association for Computational Linguistics
- (C) EACL Conference of the European Chapter of the Association for Computational Linguistics
- (C) IEEE ICTAI International Conference on Tools with Artificial Intelligence
- (C) Annual ACM Symposium on Applied Computing
- (C) PAIS Conference on Prestigious Applications of Intelligent Systems
- (C) FEVER Fact Extraction and Verification workshop
- (C) AI*IA International Conference of the Italian Association for Artificial Intelligence
- (C) AAMAS International Conference on Autonomous Agents and Multiagent Systems
- (C) LOD International Conference on Machine Learning, Optimization, and Data Science
- (C) Workshop on NLP for Positive Impact

Projects and Repositories

Andrea Galassi is responsible or co-responsible for the following projects, software, corpora, and related repositories

- **Promoting Fairness and Diversity in Speech Datasets for Mental Health and Neurological Disorders Research**
  LINK: https://www.humane-ai.eu/project/promoting-fairness-and-diversity-in-speech-datasets-for-affective-computing/
  DESCRIPTION: Critical review and meta-analysis of existing speech datasets for Mental health and neurological disorders research in the perspective of inclusivity, transparency, and fair use.
  RELATED PUBLICATIONS: [T1]
- **A Transparent and Explainable Dialogue System for Immigration Services**
  LINK: https://www.humane-ai.eu/project/a-transparent-and-explainable-dialogue-system-for-immigration-services/
  DESCRIPTION: A transparent and explainable dialogue system for assisting immigrants and non-profit organizations on administrative and legal matters in Italy.
  RELATED PUBLICATIONS: [C1]

- **Multilingual Unfair Clause Detection**
  LINK: https://github.com/lt-nlp-lab-unibo/Multilingual-Unfair-Clause-Detection
  DESCRIPTION: Software for detecting unfair clauses in terms of service contracts in a multilingual context.
  RELATED PUBLICATIONS: [J2]

- **AIoD Success Stories Platform**
  LINK: https://gitlab.com/ai4europe_unibo
  DESCRIPTION: Success Stories service for the "AI-on-demand-platform".

- **Ethical chatbots**
  LINK: https://www.ai4europe.eu/research/research-bundles/ethical-chatbots
  DESCRIPTION: Development of an ethical dialogue system, with a case study on COVID-19 vaccine information.
  RELATED PUBLICATIONS: [J6, W13, W12]

- **Cross Lingual Annotation Projection**
  LINK: https://bitbucket.org/a-galaxy/cross-lingual-annotation-projection-in-legal-texts
  DESCRIPTION: Software for the projection of labels between parallel asymmetric legal documents.
  RELATED PUBLICATIONS: [C10]

- **ResAttArg: Residual Attentive Deep Networks for Argument Structure Prediction**
  LINK: https://github.com/AGalassi/StructurePrediction18
  DESCRIPTION: Software for the classification of argumentative content in documents and for the prediction of its structure.
  RELATED PUBLICATIONS: [W14, J4]

- **Tablut Competition**
  LINK: https://github.com/AGalassi/TablutCompetition
  DESCRIPTION: Software for the Tablut Students Competition, used as part of the Fundamentals of AI courses at the University of Bologna.
  RELATED PUBLICATIONS: [W15]

- **Neural Nine Men's Morris**
  LINK: https://github.com/AGalassi/NNMM
  DESCRIPTION: Software for playing the game of Nine Men's Morris using neural networks.
  RELATED PUBLICATIONS: [J10]

Andrea Galassi is a contributor to the following projects, software, corpora, and related repositories

- **Language Technologies Lab Repository**
  LINK: https://github.com/nlp-unibo
  DESCRIPTION: Official repository of the Language Technologies Lab of the University of Bologna.

- **NewsSD-ENG**
  LINK: https://github.com/nlp-unibo/newssd-eng
  DESCRIPTION: Corpus for detecting subjectivity in English news.
  RELATED PUBLICATIONS: [C2]

- **LEXTREME**
  Link: https://huggingface.co/datasets/joelito/lextreme
  Description: Benchmark for the evaluation of multilingual language models over legal analytics tasks.
  Related publications: [C3]

- **ADELE**
  Link: https://github.com/adele-project
  Description: Software and data related to the ADELE project, regarding legal analytics for decisions and argument mining.
  Related publications: [W9, W8]

- **Check That!**
  Link: https://gitlab.com/checkthat_lab/
  Description: Software and data for the Check That! workshop.
  Related publications: [C2, C5, C6, W5, W4]

- **SubjectivITA**
  Link: https://github.com/francescoantici/SubjectivITA
  Description: Corpus for the detection of subjectivity in Italian news.
  Related publications: [C9]

Prizes and Awards

Andrea Galassi has received the following prizes & awards:

- JURIX 2024 - Honorable Mention in Best Paper Award Consideration, for paper [W1]

Teaching Activities

In academia (bachelor & master degree)

- **Lecturer**
  2 Academic Years: 2023/2024 – 2024/2025
  Course: Real-Time Systems and Programming for Automation M, Operating System and Programming Module, 12 CFUs (60 hours)
  Curriculum: Master degree in Automation Engineering and Master degree in Electrical Energy Engineering, University of Bologna, Italy

- **Adjunct Professor**
  1 Academic Year: 2020/2021
  Course: Sistemi Operativi T (translation: Operating Systems), 9 CFUs (40 hours)
  Curriculum: Bachelor degree in Computer Engineering, University of Bologna, Italy

In academia (PhD courses)

- **Lecturer**
  2 Academic Years: 2022/2023 – 2023/2024
  Course: Foundations of Natural Language Processing (10 hours)
  Curriculum: Phd in Law, Sciences and Technology, University of Bologna, Italy

In academia (Teaching Assistant/Tutor/Mentor)

- **Teaching Assistant**
  3 Academic Years: 2020/2021 – 2022/2023
  Course: Natural Language Processing
  Curriculum: Master Degree in Artificial Intelligence, University of Bologna, Italy

- **Teaching Assistant**
  2 Academic Years: 2020/2021 – 2021/2022
  Course: Fundamentals of Artificial Intelligence and Knowledge Representation
  Curriculum: Master Degree in Artificial Intelligence, University of Bologna, Italy

- **Teaching Assistant**
  2 Academic Years: 2020/2021 – 2021/2022
  Course: Languages and Algorithms for Artificial Intelligence
  Curriculum: Master Degree in Artificial Intelligence, University of Bologna, Italy

- **Teaching Assistant**
  2 Academic Years: 2018/2019 – 2019/2020
  Course: Real Time Systems for Automation M
  Curriculum: Master degree in Automation Engineering, University of Bologna, Italy

- **Teaching Assistant**
  3 Academic Years: 2017/2018 – 2019/2020
  Course: Fondamenti di Informatica T1 (translated: Foundations of Informatics)
  Curriculum: Bachelor degree in Computer Engineering, University of Bologna, Italy

Student Supervision Activity

Andrea Galassi has supervised or co-supervised the following **post-graduate students and temporary research fellows:**

- Elena Palmieri, PhD student, Nov 2022 - ongoing, main advisor: Paolo Torroni, research topic: “NLP techniques for public administration”, University of Bologna.
- Eleonora Mancini, PhD student, Nov 2022 - ongoing, main advisor: Paolo Torroni, research topic: “Data Representation, Fusion and Explainability in Multimodal Deep Learning for Natural Language Processing”, University of Bologna.
- Giulia Grundler, temporary research fellow (AdR), July 2021 - ongoing, main advisor: Paolo Torroni, research topic: "Natural Language Processing for Multilingual Legal Analytics", University of Bologna.
- Elena Palmieri, temporary research fellow (AdR), March 2021 - Oct 2022, main advisor: Giovanni Sartor, research topic: "Legal Analytics for Italian Law", University of Bologna.

Andrea Galassi has supervised or co-supervised several students students during their **final graduation project** (bachelor/master thesis), among which:

- Roberto Bonini, master thesis in artificial intelligence, "Integrating Neuro-Ocular Data for Accurate Hand Movement Decoding in Brain-Controlled Robotic Systems, 2024
- Bogdan Ivasiuk, master thesis in artificial intelligence, "Addressing Misinformation Challenges in War Scenario: Russo-Ukrainian War", 2023.
- Michele Faedi, master thesis in artificial intelligence, "Comprehensive Study Of Clinical Entity Extraction And Classification Using Large Language Models", 2023.
- Lorenzo Borelli, master thesis in artificial intelligence, "Design and implementation of a privacy-preserving dialogue system based on argumentation", 2023.
- Emmanuele Bollino, master thesis in artificial intelligence, "Automatic Terminology Coding for the Biomedical Domain", 2023.
- Elisa Ancarani, master thesis in artificial intelligence, "Argument Mining into Active Learning Systematic Reviews: unlocking the synergy between MARGOT and ASReview", 2023.
- Lorenzo Niccolai, master thesis in artificial intelligence, "Knowledge graph embedding enhancement using ontological knowledge in the biomedical domain", 2023.
- Luca Salvatore Lorello, master thesis in artificial intelligence, "Small Transformers for Bioinformatics Tasks", 2021.

- Francesco Antici, master thesis in artificial intelligence, "Advanced techniques for cross-language annotation projection in legal texts", 2021.
- Francesco Giovanelli, master thesis in computer engineering thesis, "Model Agnostic solution of CSPs with Deep Learning", 2019.
- Giacomo Pinardi, bachelor thesis in computer engineering , "Apprendimento supervisionato di un gioco da tavolo asimmetrico tramite reti neurali: un caso di studio su Tablut", 2019.
- Alessio Leurini, bachelor thesis in computer engineering, "Cross-Domain Sentiment Analysis", 2019.
- Alessandro Ravaglia, bachelor thesis in computer engineering, "Studio delle tecniche di reinforcement learning e delle loro applicazioni ai giochi da tavolo", 2019.
- Andrea Piretti, bachelor thesis in computer engineering, "Sviluppo di un'architettura software distribuita con supporto a giocatori artificiali: il caso di studio del gioco da tavolo Tablut", 2018 Nicola Alessi, project activity, 2018.
- Grilli Matteo, bachelor thesis in computer engineering, "Reti neurali profonde applicate a giochi di carte digitali: un caso di studio su Hearthstone semplificato", 2017

Andrea Galassi has supervised the following students during their **internships**:

- Refika Kalyoncu, June–September 2022, during her bachelor degree in Computer and Industrial Engineering, Bogazici University, Istanbul, Turkey
- Sezen Percin, June–September 2021, during her bachelor degree in Electrical Engineering, Bogazici University, Istanbul, Turkey

Research Interests

Andrea Galassi's main research interests cover different areas in the field of Artificial Intelligence (AI), mostly Natural Language Processing (NLP) and Deep Learning (DL), with a focus on Neuro-Symbolic (NeSy) approaches, Argument Mining (AM), Legal Analytics, and Trustworthy and Human-Centered AI.

Integration of Knowledge and Neuro-Symbolic approaches. Since the beginning of my academic career, I have been interested in combining data-based approaches with techniques that rely on formal knowledge. I have investigated whether it was possible to train advanced neural networks architecture to learn to solve problems where there are constraints and objectives that are formally defined, such as solving Constraint Satisfaction Problems (CSP) [C11] or winning board games [J10]. A possible way of injecting or extracting knowledge in DL architecture is through Neural Attention, a popular module that is now part of most state-of-the-art solutions. I have deeply studied such a method, especially focusing on its application to NLP, resulting in the writing of a survey on the topic [J7]. My interest has then focused on the application of NeSy techniques to NLP tasks, in particular AM. After an initial analysis of the existing frameworks and their potential use [J9], I have implemented a solution based on Logic Tensor Networks which has shown promising results [P2]. One of the main open challenges in the application of NeSy techniques to NLP tasks remains scalability. Indeed, current frameworks and solutions are designed to work with amount of data points that are several orders of magnitude lower than the number of data points involved in an NLP problem.

Argument Mining. Argument Mining is the analysis and processing of textual documents with the purpose of extracting argumentative contents and their relationships. Similarly to other NLP fields, AM was traditionally addressed by using hand-made features and models, which were tailored to specific datasets and problems and lacked generality. In my work, I have researched more general solutions, designing advanced DL architectures that exploit Residual Networks and Neural Attention [W14, J4]. Among the possible applications of AM there is the ranking and selection of documents, such as scientific documents. Indeed, with the growing amount of scientific literature published every year, there is a growing need for automatic tools to retrieve relevant and high-quality documents. In this context, I have contributed to the development of a search engine for Covid-19 scientific articles in the context of the FISR AMICA project [C8, J5]. While typically addressed through the use of DL, many challenges still stand open, as argumentation involves tasks such as reasoning, debate, and persuasion that cannot be easily addressed by deep architectures only, sophisticated as they may be. Indeed, DL models may benefit from the integration of formal knowledge, which can be given by the specific domain or by more general structures taken from the research field of computational argumentation [J9].

Trustworthy and Human-Centered AI. The expansion of intelligent technologies has been met by growing concerns about possible misuse, motivating a need to develop AI systems that are trustworthy. On the one hand, governments are pressured to gain or preserve an edge in intelligent technologies, which make intensive use of large amounts of data. On the other hand, there is an increasing awareness of the fundamental need for data protection regulations. Trustworthy AI systems need not only be robust but also respectful of all applicable laws and regulations, as well as of ethical principles and values. I had the opportunity to deepen these topics as part of my participation in the Humane AI consortium. My research has been focused on three different topics:

- I developed a dialogue system architecture specifically designed to respect the users' privacy while being explainable and auditable. The final result [J6] was a modular solution that integrated both an NLP module for understanding the specific request of the user [W13] and a reasoning module based on computational argumentation to provide the answer and its explanation [W12]. I then continued the investigation of this topic by leading a micro-project regarding the application of this architecture in the legal domain [C1].
- Another topic I addressed regards the use of speech data for social good, such as the detection of disruptive situations in public transport [J3]. I have led a micro-project regarding the creation of fair resources for this domain [T1].
- Finally, another dimension of human-centered AI regards citizens' empowerment in social contexts where they may be potentially threatened. Domains that have unfortunately become extremely popular in recent years are the verification information, the automatic detection of fake news, and the recognition of propaganda techniques. I have supervised two studies regarding subjectivity in news articles [C2, C9] and the detection of fake news [W3], and I have been a co-chair and co-organizer of a workshop on these topics [C5, C6, W5, W4, W2].

Legal Analytics. Mixing NLP, AI, and data science, Legal Analytics aims to extract legal knowledge, infer unknown relations, and realize data-driven forecasting. The integration of multiple techniques from different disciplines is a key factor since it is typically difficult to produce large amounts of data, while the domain knowledge is vast and yet often not clearly defined. Moreover, the inherent trade-off between the generality of an approach and its efficacy in the context of a specific language or legislation highlights the benefits of techniques that can be used to transfer knowledge from one domain to another. Over the years, my research has covered several aspects of this field. Due to the argumentative nature of legal judgments, the legal domain is an especially interesting domain of application for AM [W9, C4], which can be exploited also for more advanced tasks, such as outcome prediction [W8]. Another topic I worked on regards the extraction of the principles of law from legal documents [T2] I have also researched how to create coherent novel synthetic data by combining sub-symbolic approaches such as word embeddings with symbolic ontologies [W6]. I have worked on approaches to analyze the fairness of privacy policies and terms of services with respect to regulations such as GDPR [W1]. In this context, I worked on multilingualism, developing solutions to transfer the knowledge acquired from one language to another one [J2, C10, W11]. I am also part of an international research group that designed a benchmark for the evaluation of multilingual language models over legal tasks [C3].

Education Methods. Finally, unrelated to the rest of my research, I am interested in studying and experimenting with novel methods of education, which can improve the interest and motivation of students. I contributed to two studies regarding the use of a board-game challenge as a tool to teach AI to master students [W15, J1] and I am directly involved in their prosecution and realization.

Publications

Bibliometric indexes

Source: IRIS-CINECA catalog (based on Web of Science and Scopus services)

- Number of citations: 690 (IRIS-CINECA) from more than 620 documents (Scopus)
- h-index: 10 (IRIS-CINECA)

Source: Google Scholar

- Number of citations: 1300
- h-index: 14

Source: BetterScholar

- Level: 9

Journals

[J1] Allegra De Filippo, Andrea Galassi, Alessandro Soriani, Giada Trisolini, Federico Baldo, Federico Chesani, Paola Mello, and Michela Milano. Improving the teaching of artificial intelligence through project-based learning on a board game. *Intelligenza Artificiale*, in press, 2025. Co-first author; Scimago quartile: Q2.

[J2] Andrea Galassi, Francesca Lagioia, Agnieszka Jabłonowska, and Marco Lippi. Unfair clause detection in terms of service across multiple languages. *Artificial Intelligence and Law*, April 2024. First author; Scimago quartile: Q1.

[J3] Eleonora Mancini, Andrea Galassi, Federico Ruggeri, and Paolo Torroni. Disruptive situation detection on public transport through speech emotion recognition. *Intelligent Systems with Applications*, 21:200305, March 2024. Scimago quartile: Q1.

[J4] Andrea Galassi, Marco Lippi, and Paolo Torroni. Multi-task attentive residual networks for argument mining. *IEEE ACM Transactions on Audio, Speech, and Language Processing*, 31:1877–1892, 2023. First author; Scimago quartile: Q1.

[J5] Gianfranco Brambilla, Antonella Rosi, Francesco Antici, Andrea Galassi, Daniele Giansanti, Fabio Magurano, Federico Ruggeri, Paolo Torroni, Evaristo Cisbani, and Marco Lippi. Argument mining as rapid screening tool of covid-19 literature quality: Preliminary evidence. *Frontiers in Public Health*, 10, 2022.

[J6] Bettina Fazzinga, Andrea Galassi, and Paolo Torroni. A privacy-preserving dialogue system based on argumentation. *Intelligent Systems with Applications*, 16:200113, 2022. Equal contribution of authors; Scimago quartile: Q1.

[J7] Andrea Galassi, Marco Lippi, and Paolo Torroni. Attention in natural language processing. *IEEE Transactions on Neural Networks Learning Systems*, 32(10):4291–4308, 2021. First author; Scimago quartile: Q1.

[J8] Elena Borelli, Giacomo Paolini, Francesco Antoniazzi, Marina Barbiroli, Francesca Benassi, Federico Chesani, Lorenzo Chiari, Massimiliano Fantini, Franco Fuschini, Andrea Galassi, Gian Andrea Giacobone, Silvia Imbesi, Melissa Licciardello, Daniela Loreti, Michele Marchi, Diego Masotti, Paola Mello, Sabato Mellone, Giuseppe Mincolelli, Carla Raffaelli, Luca Roffia, Tullio Salmon Cinotti, Carlo Tacconi, Paola Tamburini, Marco Zoli, and Alessandra Costanzo. HABITAT: an IoT solution for independent elderly. *Sensors*, 19(5):1258, 2019. Scimago quartile: Q1/Q2.

[J9] Andrea Galassi, Kristian Kersting, Marco Lippi, Xiaoting Shao, and Paolo Torroni. Neural-symbolic argumentation mining: An argument in favor of deep learning and reasoning. *Frontiers Big Data*, 2:52, 2019. First author; Scimago quartile: Q1.

[J10] Federico Chesani, Andrea Galassi, Marco Lippi, and Paola Mello. Can deep networks learn to play by the rules? A case study on nine men's morris. *IEEE Transactions on Games*, 10(4):344–353, 2018. Equal contribution of authors; Scimago quartile: Q2.

Main Conferences

[C1] Bettina Fazzinga, Elena Palmieri, Margherita Vestoso, Luca Bolognini, Andrea Galassi, Filippo Furfaro, and Paolo Torroni. A chatbot for asylum-seeking migrants in europe. In *IEEE ICTAI*, October 2024. Corresponding author; Conference GGS Rating: B.

[C2] Francesco Antici, Federico Ruggeri, Andrea Galassi, Katerina Korre, Arianna Muti, Alessandra Bardi, Alice Fedotova, and Alberto Barrón-Cedeño. A corpus for sentence-level subjectivity detection on English news articles. In Nicoletta Calzolari, Min-Yen Kan, Veronique Hoste, Alessandro Lenci, Sakriani Sakti, and Nianwen Xue, editors, *Proceedings of the 2024 Joint International Conference on Computational Linguistics, Language Resources and Evaluation (LREC-COLING 2024)*, pages 273–285, Torino, Italy, May 2024. ELRA and ICCL. Conference GGS Rating: A.

[C3] Joel Niklaus, Veton Matoshi, Pooja Rani, Andrea Galassi, Matthias Stürmer, and Ilias Chalkidis. LEXTREME: A multi-lingual and multi-task benchmark for the legal domain. In *Conference on Empirical Methods in Natural Language Processing (EMNLP)*, volume Findings, December 2023. Conference GGS Rating: A+.

[C4] Piera Santin, Giulia Grundler, Andrea Galassi, Federico Galli, Francesca Lagioia, Elena Palmieri, Federico Ruggeri, Giovanni Sartor, and Paolo Torroni. Argumentation structure prediction in cjeu decisions on fiscal state aid. In *International Conference on Artificial Intelligence and Law*, pages 247—-256, Braga, Portugal, June 2023. Corresponding author; Conference GGS Rating: B-.

[C5] Alberto Barrón-Cedeño, Firoj Alam, Tommaso Caselli, Giovanni Da San Martino, Tamer Elsayed, Andrea Galassi, Fatima Haouari, Federico Ruggeri, Julia Maria Struß, Rabindra Nath Nandi, Gullal S. Cheema, Dilshod Azizov, and Preslav Nakov. The CLEF-2023 checkthat! lab: Checkworthiness, subjectivity, political bias, factuality, and authority. In *Advances in Information Retrieval - 45th European Conference on Information Retrieval, ECIR 2023, Dublin, Ireland, April 2-6, 2023, Proceedings, Part III*, volume 13982 of *Lecture Notes in Computer Science*, pages 506–517. Springer, April 2023. Conference GGS Rating: A-.

[C6] Alberto Barrón-Cedeño, Firoj Alam, Andrea Galassi, Giovanni Da San Martino, Preslav Nakov, Tamer Elsayed, Dilshod Azizov, Tommaso Caselli, Gullal S. Cheema, Fatima Haouari, Maram

Hasanain, Mücahid Kutlu, Chengkai Li, Federico Ruggeri, Julia Maria Struß, and Wajdi Zaghouani. Overview of the CLEF-2023 checkthat! lab on checkworthiness, subjectivity, political bias, factuality, and authority of news articles and their source. In *Experimental IR Meets Multilinguality, Multimodality, and Interaction - 14th International Conference of the CLEF Association, CLEF 2023, Thessaloniki, Greece, September 18-21, 2023, Proceedings*, volume 14163 of *Lecture Notes in Computer Science*, pages 251–275. Springer, 2023. Conference GGS Rating: B;.

[C7] Mirko Del Moro, Serban Cristian Tudosie, Francesco Vannoni, Andrea Galassi, and Federico Ruggeri. Inception models for fashion image captioning: An extensive study on multiple datasets. In Avi Arampatzis, Evangelos Kanoulas, Theodora Tsikrika, Stefanos Vrochidis, Anastasia Giachanou, Dan Li, Mohammad Aliannejadi, Michalis Vlachos, Guglielmo Faggioli, and Nicola Ferro, editors, *Experimental IR Meets Multilinguality, Multimodality, and Interaction - 14th International Conference of the CLEF Association, CLEF 2023, Thessaloniki, Greece, September 18-21, 2023, Proceedings*, volume 14163 of *Lecture Notes in Computer Science*, pages 3–14. Springer, 2023. Corresponding author; conference GGS Rating: B.

[C8] Marco Lippi, Francesco Antici, Gianfranco Brambilla, Evaristo Cisbani, Andrea Galassi, Daniele Giansanti, Fabio Magurano, Antonella Rosi, Federico Ruggeri, and Paolo Torroni. AMICA: an argumentative search engine for COVID-19 literature. In *Proceedings of the Thirty-First International Joint Conference on Artificial Intelligence, IJCAI 2022, Vienna, Austria, 23-29 July 2022*, pages 5932–5935. ijcai.org, 2022. Conference GGS Rating: A++.

[C9] Francesco Antici, Luca Bolognini, Matteo Antonio Inajetovic, Bogdan Ivasiuk, Andrea Galassi, and Federico Ruggeri. Subjectivita: An italian corpus for subjectivity detection in newspapers. In *Experimental IR Meets Multilinguality, Multimodality, and Interaction - 12th International Conference of the CLEF Association, CLEF 2021, Virtual Event, September 21-24, 2021, Proceedings*, volume 12880 of *Lecture Notes in Computer Science*, pages 40–52. Springer, 2021. Corresponding Author; conference GGS Rating: B.

[C10] Andrea Galassi, Kasper Drazewski, Marco Lippi, and Paolo Torroni. Cross-lingual annotation projection in legal texts. In *Proceedings of the 28th International Conference on Computational Linguistics, COLING 2020, Barcelona, Spain (Online), December 8-13, 2020*, pages 915–926. International Committee on Computational Linguistics, 2020. First author; conference GGS Rating: A.

[C11] Andrea Galassi, Michele Lombardi, Paola Mello, and Michela Milano. Model agnostic solution of csps via deep learning: A preliminary study. In *Integration of Constraint Programming, Artificial Intelligence, and Operations Research - 15th International Conference, CPAIOR 2018, Delft, The Netherlands, June 26-29, 2018, Proceedings*, volume 10848 of *Lecture Notes in Computer Science*, pages 254–262. Springer, 2018. First author; conference GGS Rating: B-.

Archival Conferences & Workshops

[W1] Giulia Grundler, Rūta Liepiņa, Mariaceleste Musicco, Francesca Lagioia, Andrea Galassi, Giovanni Sartor, and Paolo Torroni. Detecting vague clauses in privacy policies: The analysis of data categories using bert models and llms. In *Legal Knowledge and Information Systems - JURIX*, volume 395 of *Frontiers in Artificial Intelligence and Applications*, pages 72–83. IOS Press, 2024.

[W2] Julia Maria Struß, Federico Ruggeri, Alberto Barrón-Cedeño, Firoj Alam, Dimitar Dimitrov, Andrea Galassi, Georgi Pachov, Ivan Koychev, Preslav Nakov, Melanie Siegel, Michael Wiegand, Maram Hasanain, Reem Suwaileh, and Wajdi Zaghouani. Overview of the CLEF-2024 checkthat! lab task 2 on subjectivity in news articles. In *CLEF (Working Notes)*, volume 3740 of *CEUR Workshop Proceedings*, pages 287–298. CEUR-WS.org, 2024.

[W3] Nina Khairova, Bogdan Ivasiuk, Fabrizio Lo Scudo, Carmela Comito, and Andrea Galassi. A first attempt to detect misinformation in Russia-Ukraine war news through text similarity. In Sara Carvalho, Anas Fahad Khan, Ana Ostroški Anić, Blerina Spahiu, Jorge Gracia, John P. McCrae, Dagmar Gromann, Barbara Heinisch, and Ana Salgado, editors, *Proceedings of the 4th Conference on Language, Data and Knowledge*, pages 559–564, Vienna, Austria, September 2023. NOVA CLUNL, Portugal.

[W4] Andrea Galassi, Federico Ruggeri, Alberto Barrón-Cedeño, Firoj Alam, Tommaso Caselli, Mücahid Kutlu, Julia Maria Struß, Francesco Antici, Maram Hasanain, Juliane Köhler, Katerina Korre, Folkert Leistra, Arianna Muti, Melanie Siegel, Mehmet Deniz Türkmen, Michael Wiegand, and Wajdi Zaghouani. Overview of the CLEF-2023 checkthat! lab: Task 2 on subjectivity detection. In Mohammad Aliannejadi, Guglielmo Faggioli, Nicola Ferro, and Michalis Vlachos, editors, *Working Notes of the Conference and Labs of the Evaluation Forum (CLEF 2023), Thessaloniki, Greece, September 18th to 21st, 2023*, volume 3497 of *CEUR Workshop Proceedings*, pages 236–249. CEUR-WS.org, 2023.

[W5] Federico Ruggeri, Francesco Antici, Andrea Galassi, Katerina Korre, Arianna Muti, and Alberto Barrón-Cedeño. On the definition of prescriptive annotation guidelines for language-agnostic subjectivity detection. In Ricardo Campos, Alípio Mário Jorge, Adam Jatowt, Sumit Bhatia, and Marina Litvak, editors, *Proceedings of Text2Story - Sixth Workshop on Narrative Extraction From Texts held in conjunction with ECIR*, volume 3370 of *CEUR Workshop Proceedings*, pages 103–111. CEUR-WS.org, 2023.

[W6] Sezen Perçin, Andrea Galassi, Francesca Lagioia, Federico Ruggeri, Piera Santin, Giovanni Sartor, and Paolo Torroni. Combining WordNet and word embeddings in data augmentation for legal texts. In *Proceedings of the Natural Legal Language Processing Workshop 2022*, pages 47–52, Abu Dhabi, United Arab Emirates (Hybrid), December 2022. Association for Computational Linguistics. Corresponding Author.

[W7] Pavlo Seroyizhko, Zhanel Zhexenova, Muhammad Zohaib Shafiq, Fabio Merizzi, Andrea Galassi, and Federico Ruggeri. A sentiment and emotion annotated dataset for bitcoin price forecasting based on Reddit posts. In *Proceedings of the Fourth Workshop on Financial Technology and Natural Language Processing (FinNLP)*, pages 203–210, Abu Dhabi, United Arab Emirates (Hybrid), December 2022. Association for Computational Linguistics. Corresponding Author.

[W8] Federico Galli, Giulia Grundler, Alessia Fidelangeli, Andrea Galassi, Francesca Lagioia, Elena Palmieri, Federico Ruggeri, Giovanni Sartor, and Paolo Torroni. Predicting outcomes of italian VAT decisions. In *Legal Knowledge and Information Systems - JURIX 2022: The Thirty-fifth Annual Conference, Saarbrücken, Germany, 14-16 December 2022*, volume 362 of *Frontiers in Artificial Intelligence and Applications*, pages 188–193. IOS Press, 2022. Corresponding Author.

[W9] Giulia Grundler, Piera Santin, Andrea Galassi, Federico Galli, Francesco Godano, Francesca Lagioia, Elena Palmieri, Federico Ruggeri, Giovanni Sartor, and Paolo Torroni. Detecting arguments in

CJEU decisions on fiscal state aid. In *Proceedings of the 9th Workshop on Argument Mining, ArgMining@COLING 2022, Online and in Gyeongju, Republic of Korea, October 12 - 17, 2022*, pages 143–157. International Conference on Computational Linguistics, 2022. Corresponding Author.

[W10] Eleonora Mancini, Federico Ruggeri, Andrea Galassi, and Paolo Torroni. Multimodal argument mining: A case study in political debates. In *Proceedings of the 9th Workshop on Argument Mining, ArgMining@COLING 2022, Online and in Gyeongju, Republic of Korea, October 12 - 17, 2022*, pages 158–170. International Conference on Computational Linguistics, 2022.

[W11] Kasper Drawzeski, Andrea Galassi, Agnieszka Jablonowska, Francesca Lagioia, Marco Lippi, Hans Wolfgang Micklitz, Giovanni Sartor, Giacomo Tagiuri, and Paolo Torroni. A corpus for multilingual analysis of online terms of service. In *Proceedings of the Natural Legal Language Processing Workshop 2021*, pages 1–8, Punta Cana, Dominican Republic, nov 2021. Association for Computational Linguistics. Equal contribution of authors.

[W12] Bettina Fazzinga, Andrea Galassi, and Paolo Torroni. An argumentative dialogue system for COVID-19 vaccine information. In *Logic and Argumentation - 4th International Conference, CLAR 2021, Hangzhou, China, October 20-22, 2021, Proceedings*, volume 13040 of *Lecture Notes in Computer Science*, pages 477–485. Springer, 2021. Equal contribution of authors.

[W13] Bettina Fazzinga, Andrea Galassi, and Paolo Torroni. A preliminary evaluation of a privacy-preserving dialogue system. In *Proceedings of the Fifth Workshop on Natural Language for Artificial Intelligence (NL4AI 2021) co-located with 20th International Conference of the Italian Association for Artificial Intelligence (AI*IA 2021), Online event, November 29, 2021*, volume 3015 of *CEUR Workshop Proceedings*. CEUR-WS.org, 2021. Equal contribution of authors.

[W14] Andrea Galassi, Marco Lippi, and Paolo Torroni. Argumentative link prediction using residual networks and multi-objective learning. In Noam Slonim and Ranit Aharonov, editors, *Proceedings of the 5th Workshop on Argument Mining, ArgMining@EMNLP 2018, Brussels, Belgium, November 1, 2018*, pages 1–10. Association for Computational Linguistics, 2018. First Author.

[W15] Federico Chesani, Andrea Galassi, Paola Mello, and Giada Trisolini. A game-based competition as instrument for teaching artificial intelligence. In *AI*IA 2017 Advances in Artificial Intelligence - XVIth International Conference of the Italian Association for Artificial Intelligence, Bari, Italy, November 14-17, 2017, Proceedings*, volume 10640 of *Lecture Notes in Computer Science*, pages 72–84. Springer, 2017. Equal contribution of authors.

Other Peer-reviewed Publications

[P1] Andrea Galassi. *Deep Networks and Knowledge: from Rule Learning to Neural-Symbolic Argument Mining*. PhD thesis, University of Bologna, Italy, 2021.

[P2] Andrea Galassi, Marco Lippi, and Paolo Torroni. Investigating logic tensor networks for neural-symbolic argument mining. In *Tenth International Workshop on Statistical Relational AI*, 2021.

Technical Reports and Manuscripts Under Review

[T1] Eleonora Mancini, Ana Tanevska, Andrea Galassi, Alessio Galatolo, Federico Ruggeri, and Paolo Torroni. Promoting fairness and diversity in speech datasets for mental health and neurological disorders research. *CoRR*, abs/2406.04116, 2024. Corresponding author.

[T2] Sezen Percin, Piera Santin, Andrea Galassi, Francesca Lagioia, Ruta Liepina, Federico Ruggeri, Giovanni Sartor, and Paolo Torroni. Automatic extraction of legal principles of the court of justice of the european union. 2024. Corresponding author.

[T3] Andrea Galassi. An upper bound on the complexity of tablut. *CoRR*, abs/2101.11934, 2021.