Preface to the Eighth Workshop on Natural Language for Artificial Intelligence (NL4AI 2024)

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1. Introduction

The Natural Language for Artificial Intelligence (NL4AI) workshop, supported by the Special Interest Group on NLP of the Italian Association for Artificial Intelligence (AIxIA)[1] and by the Italian Association of Computational Linguistics (AILC)[2], aims at providing a broad overview of recent activities in the field of Human Language Technologies (HLT) in Italy and foster further research on the topic. Since its first edition in 2017, the workshop has served as a forum for researchers to share insights, collaborate, and discuss innovations at the intersection of Natural Language Processing (NLP) and Artificial Intelligence (AI). As in previous years, this edition of the workshop was held in conjunction with the International Conference of the Italian Association for Artificial Intelligence (AIxIA 2024)[3], which took place on November 25–28th in Bolzano, Italy. The workshop program is available on the official website[4].

The workshop covered key topics examining the role of Computational Linguistics and Natural Language Processing in Artificial Intelligence applications, including:

- NLP and AI Applications (health, legal domain, social media and journalism, etc.)
- Natural Language Interfaces for Human-Robot Interaction
- Resources and Evaluation
- Discourse and Pragmatics
- Natural Language Generation
- Information extraction in AI applications
- Machine Learning for NLP
- Sentiment analysis and Opinion mining
- Natural Language Inference
- NLP and Industrial Challenges
- NLP and Knowledge Graphs
- Semantics
- Conversational Agents in Human-Computer Interaction
- Cognitive modelling and psycholinguistics
- Language and other Multimodality
- Speech and Spoken language processing
- Ethics and NLP

[1]Group on NLP of AIxIA website: https://aixia.it/en/gruppi/elaborazione-del-linguaggio-naturale/
[2]AILC website: https://www.ai-lc.it/en/
[3]AIxIA 2024 website: https://aixia2024.events.unibz.it/
[4]NL4AI workshop website: http://sag.art.uniroma2.it/NL4AI/

- Interpretability, Explainability and Analysis of Models for NLP
- Abusive Language Detection and Analysis
- Machine Translation and Multilinguality
- Question Answering
- Summarization
- NLP for Fact Checking, Fake News Detection and Analysis
- LLMs and Applications
- Multimodal (text-image) data sources

2. Accepted Papers

The accepted papers are listed below:

1. Patrick Styll, Wojciech Kusa and Allan Hanbury - *Enhancing Clinical Data Capture: Developing a Natural Language Processing Pipeline for Converting Free Text Admission Notes to Structured EHR Data*
2. Lucrezia Laraspata, Fabio Cardilli, Giovanna Castellano and Gennaro Vessio - *Enhancing human capital management through GPT-driven questionnaire generation*
3. Diego Gosmar, Deborah A. Dahl, Emmett Coin and David Attwater - *AI Multi-Agent Interoperability Extension for Managing Multiparty Conversations*
4. Flavio Valerio, Pierpaolo Basile and Marco de Gemmis - *Adapting a Large Language Model to the Legal Domain: A Case Study in Italian*
5. Antonio Scaiella, Daniele Margiotta, Claudiu Daniel Hromei, Danilo Croce and Roberto Basili - *Evaluating Multimodal Large Language Models for Visual Question-Answering in Italian*
6. Elio Musacchio, Lucia Siciliani, Pierpaolo Basile and Giovanni Semeraro - *LLaVA-NDiNO: Empowering LLMs with Multimodality for the Italian Language*
7. Michele Papucci, Alessio Miaschi and Felice Dell'Orletta - *Fantastic Labels and Where to Find Them: Attention-Based Label Selection for Text-to-Text Classification*
8. Marta Sartor, Felice Dell'Orletta and Giulia Venturi - *Coherence Evaluation in Italian Language Models*
9. Loris Di Quilio and Fabio Fioravanti - *A Comprehensive Framework for Aspect-Category Sentiment Analysis*
10. Calogero Jerik Scozzaro, Matteo Delsanto, Antonio Mastropaolo, Enrico Mensa, Luisa Revelli and Daniele P. Radicioni - *On the Reform of the Italian Constitution: an Interdisciplinary Text Readability Analysis*
11. Emanuele Colonna, Alessandro Arezzo, Domenico Roberto, David Landi, Felice Vitulano, Gennaro Vessio and Giovanna Castellano - *Towards Italian Sign Language generation for digital humans*
12. Irene Siragusa and Roberto Pirrone - *UniQA: an Italian and English Question-Answering Data Set Based on Educational Documents*
13. Sofia Brenna and Bernardo Magnini - *Last Utterance Proactivity Prediction in Task-oriented Dialogues*
14. Valeria Nardoni, Marco Lippi, Giulia Hyeraci, Martina Maccari, Amirreza Dehghan Tarazjani, Gianni Virgili, Rosa Gini and Simone Marinai - *Towards Automatically Filling Questionnaires from Clinical Records with Large Language Models*

3. Keynote Speaker

The workshop also benefited from two keynote speakers whose talks addressed the latest research themes with a huge impact on AI and NLP research. The two invited talks were:

- Brando Benifei with a talk titled *"The European AI Act: Challenges and opportunities for ethical and responsible artificial intelligence"*
- Valerio Basile with a talk titled *"Modeling and Evaluation for Perspectivist NLP"*

4. Program Committee

As a final remark, the program co-chairs would like to thank all the members of the Program Committee (listed below).

- Agnese Augello, ICAR Institute for high performance computing and networking, Italy
- Pier Felice Balestrucci, University of Turin, Italy
- Pierpaolo Basile, University of Bari, Italy
- Valerio Basile, University of Turin, Italy
- Roberto Basili, University of Roma Tor Vergata, Italy
- Alessandro Bondielli, University of Pisa, Italy
- Federico Borazio, University of Rome Tor Vergata, Italy
- Dominique Brunato, Institute of Computational Linguistics "A. Zampolli", Italy
- Silvia Casola, University of Turin, Italy
- Pierluigi Cassotti, University of Gothenburg, Sweden
- Alessandra Teresa Cignarella, Ghent University, Belgium
- Danilo Croce, University of Rome Tor Vergata, Italy
- Gaetano Dibenedetto, University of Bari, Italy
- Lia Draetta, University of Turin, Italy
- Felice Dell'Orletta, Institute for Computational Linguistics "A. Zampolli", Italy
- Mauro Dragoni, Fondazione Bruno Kessler, Italy
- Chiara Ferrando, University of Turin, Italy
- Alessandro Lenci, University of Pisa, Italy
- Soda Marem Lo, University of Turin, Italy
- Marco Maleddu, University of Turin, Italy
- Bernardo Magnini, Fondazione Bruno Kessler, Italy
- Alessio Miaschi, Institute for Computational Linguistics "A. Zampolli", Italy
- Elio Musacchio, University of Bari, Italy
- Daniele Nardi, Sapienza University of Rome, Italy
- Nicole Novielli, University of Bari, Italy
- Viviana Patti, University of Turin, Italy
- Alessandro Petruzzelli, University of Bari, Italy
- Marco Polignano, University of Bari, Italy
- Elena Sofia Ruzzetti, University of Roma Tor Vergata, Italy
- Andrea Santilli, Sapienza University of Rome, Italy
- Giovanni Semeraro, University of Bari, Italy
- Giuseppe Spillo, University of Bari, Italy