EMNLP 2023

The 10th Workshop on Argument Mining (ArgMining 2023)

Proceedings of the Workshop

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Online and in Singapore

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Introduction

Argument mining (also known as "argumentation mining") is a gradually maturing research area within computational linguistics. At its heart, argument mining involves the automatic identification of argumentative structures in free text, such as the conclusions, premises, and inference schemes of arguments as well as their interrelations and counter-considerations. To date, researchers have investigated argument mining on genres such as legal documents, product reviews, news articles, online debates, user-generated web discourse, Wikipedia articles, scholarly data, persuasive essays, tweets, and dialogues. Aside from mining argumentative components, the field focuses on studying argument quality assessment, argument persuasiveness, and the synthesis of argumentative texts.

Argument mining gives rise to various practical applications of great importance. In particular, it provides methods that can find and visualize the main pro and con arguments in a text corpus — or even in an argument search on the web — towards a topic or query of interest. In instructional contexts, written and diagrammed arguments represent educational data that can be mined for conveying and assessing students' command of course material. Moreover, debate technologies like IBM Project Debater that drew a lot of attention recently rely heavily on argument mining tasks.

While solutions to basic tasks such as component segmentation and classification slowly become mature, many tasks remain largely unsolved, particularly in more open genres and topical domains. Success in argument mining requires interdisciplinary approaches informed by NLP technology, theories of semantics, pragmatics and discourse, knowledge of discourse in application domains, artificial intelligence, information retrieval, argumentation theory, and computational models of argumentation.

The ArgMining community is constantly growing, as demonstrated by the increasing number of submissions on argument mining being accepted at top level international conferences in the fields of NLP and AI. This year's 10th edition of the workshop had 40 valid submissions (30 in 2020, 39 in 2021, and 37 in 2022). Among the submitted papers, there were 13 long papers, 13 short papers, and 1 demo paper. We accepted 8 long papers and 3 short papers (41% acceptance rate). In addition, the workshop features 13 shared-task papers. The submissions came from institutions in 17 countries. All accepted papers are included in the proceedings at hand. We would like to thank our Program Committee members as well as the members of our Best Paper Selection Committee: Claire Cardie (Cornell University), Naoya Inoue (JAIST) and Benno Stein (Bauhaus-Universität Weimar).

The one-day workshop was conducted in hybrid format. We were delighted to have Noam Slonim from IBM Research AI as the keynote speaker, on the topic of "Project Debater and argument mining - a historical and somewhat personal perspective". In celebration of the 10th anniversary of the workshop series, a panel of distinguished researchers in the field, including Khalid Al Khatib (University of Groningen), Yufang Hou (IBM Research AI), Diane Litman (University of Pittsburgh), Chris Reed (University of Dundee), and Henning Wachsmuth (Leibniz Universität Hannover), reflected on the past and the future of argument mining. ArgMining 2023 also hosted two shared tasks, namely the First Shared Task in Multimodal Argument Mining (ImageArg 2023) and the First Shared Task on Pragmatic Tagging of Peer Reviews (PragTag 2023).

We would like to express our gratitude to our sponsors, IBM and Naver. Their support allowed the workshop program to feature a best paper award, chosen by an independent committee. Awards are announced on the official workshop website: https://argmining-org.github.io/2023/index.html.

Thanks to everyone who supported and made this workshop possible!

Milad Alshomary, Chung-Chi Chen, Smaranda Muresan, Joonsuk Park, and Julia Romberg
(ArgMining 2023 co-chairs)

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Ilia Kuznetsov, Technical University of Darmstadt

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Claire Cardie, Cornell University
Naoya Inoue, JAIST
Benno Stein, Bauhaus-Universität Weimar

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Andrés Segura-Tinoco and Iván Cantador

Argument Detection in Student Essays under Resource Constraints
Omid Kashefi, Sophia Chan and Swapna Somasundaran

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On the Impact of Reconstruction and Context for Argument Prediction in Natural Debate
Zlata Kikteva, Alexander Trautsch, Patrick Katzer, Mirko Oest, Steffen Herbold and Annette Hautli-Janisz

Unsupervised argument reframing with a counterfactual-based approach
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Detecting Argumentative Fallacies in the Wild: Problems and Limitations of Large Language Models
Ramon Ruiz-Dolz and John Lawrence

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Constituency Tree Representation for Argument Unit Recognition
Samuel Guilluy, Florian Mehats and Billal Chouli

Mind the Gap: Automated Corpus Creation for Enthymeme Detection and Reconstruction in Learner Arguments (Findings Paper)
Maja Stahl, Nick Düsterhus, Mei-Hua Chen and Henning Wachsmuth

Automatic Analysis of Substantiation in Scientific Peer Reviews (Findings Paper)
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Overview of ImageArg-2023: The First Shared Task in Multimodal Argument Mining
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Overview of PragTag-2023: Low-Resource Multi-Domain Pragmatic Tagging of Peer Reviews
Nils Dycke, Ilia Kuznetsov and Iryna Gurevych

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Towards Fine-Grained Argumentation Strategy Analysis in Persuasive Essays
Robin Schaefer, René Knaebel and Manfred Stede

Using Masked Language Model Probabilities of Connectives for Stance Detection in English Discourse
Regina Stodden, Laura Kallmeyer, Lea Kawaletz and Heidrun Dorgeloh

Stance-Aware Re-Ranking for Non-factual Comparative Queries
Jan Heinrich Reimer, Alexander Bondarenko, Maik Fröbe and Matthias Hagen

Unveiling the Power of Argument Arrangement in Online Persuasive Discussions (Findings Paper)
Nailia Mirzakhmedova, Johannes Kiesel, Khalid Al Khatib and Benno Stein

High-quality argumentative information in low resources approaches improves counter-narrative generation (Findings Paper)
Damián Furman, Pablo Torres, José Rodríguez, Diego Letzen, Maria Vanina Martinez and Laura Alonso Alemany

18:00–18:15 Closing Remarks + Best Paper Award