Introduction

Argument mining (also known as “argumentation mining”) is a young and 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, academic literature, persuasive essays, tweets, and dialogues. Recently, also argument quality assessment and generation came into focus. In addition, argument mining is inherently tied to stance and sentiment analysis, since every argument carries a stance towards its topic, often expressed with sentiment.

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 on 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. In information retrieval, argument mining is expected to play a salient role in the emerging field of conversational search. And with the IBM Debater Project, technology based on argument mining recently received a lot of media attention.

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 community around ArgMining is constantly growing. This year’s edition of the workshop had 39 valid submissions (27 in 2017, 32 in 2018, 41 in 2019, and 30 in 2020). Among the submitted papers, there were 23 full papers, 9 short papers, and 7 shared-task papers. Out of the 39 papers, 11 full papers, 4 short papers, and 6 shared-task papers have been accepted, resulting in an overall acceptance rate of 54%. All the papers are included in the proceedings at hand.

Given the duration of the workshop (1.5 days) and its format (hybrid), we decided to give all the authors the possibility to present their work orally. Long papers were given 15 min for the talk and 5 min for the discussion, while the short papers were given 10 min for the talk and 2 min for discussion. We were delighted to have Professors Anthony Hunter from University College London and Lu Wang from the University of Michigan as keynote speakers. The speakers addressed interesting topics related to persuasion and argument generation.

The ArgMining 2021 workshop program covered the Quantitative Summarization–Key Point Analysis Shared Task, and also featured a best paper award, thankfully sponsored by IBM. Both the shared task and award are announced on the official workshop website chaired by Roxanne El Baff: https://2021.argmining.org/.

Khalid Al-Khatib, Yufang Hou, and Manfred Stede
(ArgMining 2021 co-chairs)
Organizers:
Khalid Al-Khatib, Bauhaus-Universität, Weimar (chair)
Yufang Hou, IBM Research Dublin (chair)
Manfred Stede, Universität Potsdam (chair)

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Milad Alshomary, Paderborn University
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Joonsuk Park, University of Richmond
Simon Parsons, King’s College London
Georgios Petasis, NCSR Demokritos
Olesya Razuvayevskaya, European Bioinformatics Institute
Chris Reed, University of Dundee
Patrick Saint-Dizier, IRIT - CNRS
Jodi Schneider, University of Illinois at Urbana Champaign
Benno Stein, Bauhaus-Universität Weimar
Shahbaz Syed, Leipzig University
Nicolas Turenne, UMR LISIS (INRA, UPEM, CNRS)
Serena Villata, CNRS
Henning Wachsmuth, Paderborn University
Vern R. Walker, Maurice A. Hofstra University
Zhongyu Wei, Fudan University
Magdalena Wolska, Bauhaus-Universität Weimar

Invited Speakers:
Anthony Hunter, University College London
Lu Wang, University of Michigan
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*Image Retrieval for Arguments Using Stance-Aware Query Expansion*  
Johannes Kiesel, Nico Reichenbach, Benno Stein and Martin Potthast

17:05 – 17:25  
*Is Stance Detection Topic-Independent and Cross-topic Generalizable? - A Reproduction Study*  
Myrthe Reuver, Suzan Verberne, Roser Morante and Antske Fokkens

17:25 – 17:45  
*Exploring Methodologies for Collecting High-Quality Implicit Reasoning in Arguments*  
Keshav Singh, Farjana Sultana Mim, Naoya Inoue, Shoichi Naito and Kentaro Inui

November 11, 2021

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*Assessing the Sufficiency of Arguments through Conclusion Generation*  
Timon Gurcke, Milad Alshomary and Henning Wachsmuth

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*M-Arg: Multimodal Argument Mining Dataset for Political Debates with Audio and Transcripts*  
Rafael Mestre, Razvan Milicin, Stuart Middleton, Matt Ryan, Jiatong Zhu and Timothy J. Norman

10:40 – 11:00  
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Session 5

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*Citizen Involvement in Urban Planning - How Can Municipalities Be Supported in Evaluating Public Participation Processes for Mobility Transitions?*  
Julia Romberg and Stefan Conrad

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12:00 – 13:00  
Lunch Break

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