

NAACL HLT 2015

2nd Workshop on Argumentation Mining

Proceedings of the Workshop

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Curran Associates
57 Morehouse Lane
Red Hook, New York 12571
USA
Tel: +1-845-758-0400
Fax: +1-845-758-2633
curran@proceedings.com

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Background

The goal of this workshop is to provide a follow-on forum to last year's very successful Argumentation Mining workshop at ACL, the first research forum devoted to argumentation mining in all domains of discourse.

Argumentation mining is a relatively new challenge in corpus-based discourse analysis that involves automatically identifying argumentative structures within a document, e.g., the premises, conclusion, and argumentation scheme of each argument, as well as argument-subargument and argument-counterargument relationships between pairs of arguments in the document. To date, researchers have investigated methods for argumentation mining of legal documents (Mochales and Moens 2011; Bach et al. 2013; Ashley and Walker 2013; Wyner et al. 2010), on-line debates (Cabrio and Villata 2012), product reviews (Villalba and Saint-Dizier 2012; Wyner et al. 2012), user comments on proposed regulations (Park and Cardie 2014), newspaper articles and court cases (Feng and Hirst 2011). A related older strand of research (that uses the term 'argumentative structure' in a related but different sense than ours) has investigated automatically classifying the sentences of a scientific article's abstract or full text in terms of their contribution of new knowledge to a field (e.g., Liakata et al. 2012, Teufel 2010, Mizuta et al. 2005). In addition, argumentation mining has ties to sentiment analysis (e.g., Somasundaran and Wiebe 2010). To date there are few corpora with annotations for argumentation mining research (Reed et al. 2008) although corpora with annotations for argument sub-components have recently become available (e.g., Park and Cardie 2014).

Proposed applications of argumentation mining include improving information retrieval and information extraction as well as end-user visualization and summarization of arguments. Textual sources of interest include not only the formal writing of legal text, but also a variety of informal genres such as microtext, spoken meeting transcripts, product reviews and user comments. In instructional contexts where argumentation is a pedagogically important tool for conveying and assessing students' command of course material, the written and diagrammed arguments of students (and the mappings between them) are educational data that can be mined for purposes of assessment and instruction (see e.g., Ong, Litman and Brusilovsky 2014). This is especially important given the wide-spread adoption of computer-supported peer review, computerized essay grading, and large-scale online courses and MOOCs.

As one might expect, success in argumentation mining will require interdisciplinary approaches informed by natural language processing technology, theories of semantics, pragmatics and discourse, knowledge of discourse of domains such as law and science, artificial intelligence, argumentation theory, and computational models of argumentation. In addition, it will require the creation and annotation of high-quality corpora of argumentation from different types of sources in different domains.

We are looking forward to a full day workshop to exchange ideas and present ongoing research on all of the above!!!

Organizers:

Claire Cardie (Chair), Cornell University, USA
Nancy Green, University of North Carolina Greensboro, USA
Iryna Gurevych, Technische Universität Darmstadt, Germany
Graeme Hirst, University of Toronto, Canada
Diane Litman, University of Pittsburgh, USA
Smaranda Muresan, Columbia University, USA
Georgios Petasis, N.C.S.R. “Demokritos”, Greece
Manfred Stede, Universität Potsdam, Germany
Marilyn Walker, University of California Santa Cruz, USA
Janyce Wiebe, University of Pittsburgh, USA

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Marilyn Walker, University of California Santa Cruz, USA
Vern Walker, Hofstra University, USA
Lu Wang, Cornell University, USA
Janyce Wiebe, University of Pittsburgh, USA
Adam Wyner, University Aberdeen, UK

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Conference Program

Thursday, June 4, 2015

07:30–08:45 Breakfast

08:45–09:00 *Introductions*

09:00–09:40 *Setting the Stage: Overview on Argumentation Mining by Manfred Stede, Nancy Green and Ivan Habernal*

09:40–10:05 *Linking the Thoughts: Analysis of Argumentation Structures in Scientific Publications*
Christian Kirschner, Judith Eckle-Kohler and Iryna Gurevych

10:05–10:30 *Identifying Argumentation Schemes in Genetics Research Articles*
Nancy Green

10:30–11:00 Break

11:00–11:20 *Extracting Argument and Domain Words for Identifying Argument Components in Texts*
Huy Nguyen and Diane Litman

11:20–11:30 *Poster Madness: 1-minute presentation for each poster*

11:30–12:30 *Poster Session*

Towards relation based Argumentation Mining
Lucas Carstens and Francesca Toni

A Shared Task on Argumentation Mining in Newspaper Editorials
Johannes Kiesel, Khalid Al Khatib, Matthias Hagen and Benno Stein

Conditional Random Fields for Identifying Appropriate Types of Support for Propositions in Online User Comments
Joonsuk Park, Arzoo Katiyar and Bishan Yang

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Thursday, June 4, 2015 (continued)

Argument Extraction from News

Christos Sardianos, Ioannis Manousos Katakis, Georgios Petasis and Vangelis Karkaletsis

From Argumentation Mining to Stance Classification

Parinaz Sobhani, Diana Inkpen and Stan Matwin

Argument Discovery and Extraction with the Argument Workbench

Adam Wyner, Wim Peters and David Price

12:30–2:00 Lunch

02:00–02:25 *Automatic Claim Negation: Why, How and When*

Yonatan Bilu, Daniel Hershcovich and Noam Slonim

02:25–02:50 *Learning Sentence Ordering for Opinion Generation of Debate*

Toshihiko Yanase, Toshinori Miyoshi, Kohsuke Yanai, Misa Sato, Makoto Iwayama, Yoshiki Niwa, Paul Reisert and Kentaro Inui

02:50–03:10 *Towards Detecting Counter-considerations in Text*

Andreas Peldszus and Manfred Stede

03:10–03:30 *Identifying Prominent Arguments in Online Debates Using Semantic Textual Similarity*

Filip Boltužić and Jan Šnajder

03:30–04:00 Break

04:00–04:25 *And That's A Fact: Distinguishing Factual and Emotional Argumentation in Online Dialogue*

Shereen Oraby, Lena Reed, Ryan Compton, Ellen Riloff, Marilyn Walker and Steve Whittaker

04:25–04:50 *Combining Argument Mining Techniques*

John Lawrence and Chris Reed

04:50–05:30 Wrap-up Discussion

