EMNLP 2015

6TH WORKSHOP ON COMPUTATIONAL APPROACHES TO SUBJECTIVITY, SENTIMENT AND SOCIAL MEDIA ANALYSIS
WASSA 2015

Workshop Proceedings

17 September 2015
Lisbon, Portugal

Order print-on-demand copies from:

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

©2015 The Association for Computational Linguistics
ISBN: 978-1-941643-32-7

Preface

Emotions are an important part of our everyday lives. However, until quite recently, human affect was regarded in a dual manner - positively, for its regulatory power and negatively, as a sort of a "weakness" of the human spirit, that should ideally be rational, logical, *thinking* in a very matter of fact and consequence-based fashion.

Recent discoveries in Neuropsychology and the possibilities opened by the functional Magnetic Resonance Imaging have made it clear that emotions play a very important role for the well-functioning of the human body, both psychologically, as well as physically.

Apart from the importance emotions have for each human being individually, research in Social Psychology and disciplines such as Marketing, Mass-media Communication or Political Science, has shown time and time again that the emotional discourse, its content - in words with affective connotation and the combination thereof - is of paramount difference between the success and failure of social actions, consumer products or political candidates.

Given that nowadays messages with (sometimes) high emotional connotations are so easily shared using Social Media platforms and that their high volume makes manual sifting mostly impossible, the automatic processing of Subjectivity, Sentiment and Emotions in texts, especially in Social Media contexts is highly relevant.

Bearing these observations in mind, the aim of the 6th Workshop on Computational Approaches to Subjectivity, Sentiment and Social Media Analysis (WASSA 2015) was to continue the line of the previous editions, bringing together researchers in Computational Linguistics working on Subjectivity and Sentiment Analysis and researchers working on interdisciplinary aspects of affect computation from text. Starting with 2013, WASSA has extended its scope and focus to Social Media phenomena and the impact of affect-related phenomena in this context. The past two editions have shown important breakthroughs in dealing with the challenges of these types of texts, in monolingual, multilingual and cross-domain contexts.

WASSA 2015 was organized in conjunction to EMNLP 2015: the Conference on Empirical Methods in Natural Language Processing, on September 17, 2015, in Lisboa, Portugal.

For this year's edition of WASSA, we received a total of 48 submissions, from universities and research centers all over the world, out of which 8 were accepted as long and another 16 as short papers. Each paper has been thoroughly reviewed by at least 2 members of the Program Committee. The accepted papers were all highly assessed by the reviewers, the best paper receiving an average punctuation (computed as an average of all criteria used to assess the papers) of 4.8 out of 5.

The main topics of the accepted papers are related to challenges in dealing with language and domain diversity in Social Media - the creation and evaluation of resources for subjectivity, sentiment and emotion resources for Twitter mining, but also the use of the particular structure of Social Media texts to improve the sentiment and subjectivity classification. Additionally, articles presenting valuable work concentrating on building lexica for this field demonstrate that there is still a high requirement to develop such resources, taking into account deeper levels of annotations that are inspired by theories in Psychology. Finally, some articles deal with the issue of sentiment visualization and the use of such tools to improve the performance of automatic systems for emotion detection and classification.

This year's edition has again shown that the topics put forward to discussion by WASSA are of high interest to the research community and that the papers chosen to be debated in this forum bring an important development to the SSA research area.

We would like to thank the EMNLP 2015 Organizers and Workshop Chairs for the help and support at the different stages of the workshop organization process. We are also especially grateful to the Program Committee members and the external reviewers for the time and effort spent assessing the papers. We would like to extend our thanks to our invited speaker – Dr. Zornitsa Kozareva - for accepting to deliver the keynote talk, opening a new path of collaboration between two very closely-linked topics - emotions and metaphors.

Secondly, we would like to express our gratitude for the official endorsement we received from SIGSEM - the ACL Special Interest Group on Computational Semantics, SIGWAC - the Special Interest Group of the Association for Computational Linguistics (ACL) on Web as Corpus, SIGANN - the ACL Special Interest Group for Annotation - and SIGNLL - ACL's Special Interest Group on Natural Language Learning.

We would like to express our gratitude to Yaniv Steiner, who created the WASSA logo and to the entire Europe Media Monitor team at the European Commission Joint Research Centre, for the technical support they provided.

Alexandra Balahur, Erik van der Goot, Piek Vossen and Andrés Montoyo

WASSA 2015 Chairs

Organizers:

Alexandra Balahur
European Commission Joint Research Centre
Institute for the Protection and Security of the Citizen

Erik van der Goot
European Commission Joint Research Centre
Institute for the Protection and Security of the Citizen

Piek Vossen
University of Amsterdam
Department of Language, Literature and Communication

Andrés Montoyo
University of Alicante
Department of Software and Computing Systems

Program Committee:

Nicoletta Calzolari, CNR Pisa (Italy)
Erik Cambria, University of Stirling (U.K.)
Veronique Hoste, University of Ghent (Belgium)
Dirk Hovy, University of Copenhagen (Denmark)
Ruben Izquierdo Bevia - Vrije Universiteit Amsterdam (The Netherlands)
Manfred Klenner, University of Zuerich (Switzerland)
Roman Klinger, University of Bielefeld (Germany)
Gerard Lynch, University College Dublin (Ireland)
Isa Maks - Vrije Universiteit Amsterdam (The Netherlands)
Diana Maynard - University of Sheffield (U.K.)
Saif Mohammad, National Research Council (Canada)
Karo Moilanen, University of Oxford (U.K.)
Günter Neumann, DFKI (Germany)
Constantin Orasan, University of Wolverhampton (U.K.)
Viktor Pekar, University of Wolverhampton (U.K.)
Jose-Manuel Perea-Ortega, University of Extremadura (Spain)
Paolo Rosso, Technical University of Valencia (Spain)

Josef Steinberger, Charles University Prague (The Czech Republic)
Mike Thelwall, University of Wolverhampton (U.K.)
Dan Tufis, RACAI (Romania)
Alfonso Ureña, University of Jaén (Spain)
Janyce Wiebe - University of Pittsburgh (U.S.A.)
Michael Wiegand, Saarland University (Germany)
Taras Zagibalov, Brantwatch (U.K.)

Invited Speaker:

Dr. Zornitsa Kozareva, Yahoo!

Table of Contents

Multilingual Affect Polarity and Valence Prediction in Metaphors
Zornitsa Kozareva 1

Sentiment Analysis on Monolingual, Multilingual and Code-Switching Twitter Corpora
David Vilares, Miguel A. Alonso and Carlos Gómez-Rodríguez 2

Connotation in Translation
Marine Carpuat 9

Enhanced Twitter Sentiment Classification Using Contextual Information
Soroush Vosoughi, Helen Zhou and deb roy 16

Your Sentiment Precedes You: Using an author's historical tweets to predict sarcasm
Anupam Khattri, Aditya Joshi, Pushpak Bhattacharyya and Mark Carman 25

Optimising Agile Social Media Analysis
Thomas Kober and David Weir 31

Utilizing review analysis to suggest product advertisement improvements
Takaaki Tsunoda, Takashi Inui and Satoshi Sekine 41

Towards Opinion Mining from Reviews for the Prediction of Product Rankings
Wiltrud Kessler, Roman Klinger and Jonas Kuhn 51

Classification of deceptive opinions using a low dimensionality representation
Leticia Cagnina and Paolo Rosso 58

Extending effect annotation with lexical decomposition
Josef Ruppenhofer and Jasper Brandes 67

Analysing domain suitability of a sentiment lexicon by identifying distributionally bipolar words
Lucie Flekova, Daniel Preoţiuc-Pietro and Eugen Ruppert 77

Imagisaurus: An Interactive Visualizer of Valence and Emotion in the Roget's Thesaurus
Saif Mohammad 85

Personality Traits on Twitter—or—How to Get 1,500 Personality Tests in a Week
Barbara Plank and Dirk Hovy 92

Negation Scope Detection for Twitter Sentiment Analysis
Johan Reitan, Jørgen Faret, Björn Gambäck and Lars Bungum 99

A Linguistically Informed Convolutional Neural Network
Sebastian Ebert, Ngoc Thang Vu and Hinrich Schütze 109

How much does word sense disambiguation help in sentiment analysis of micropost data?
Chiraag Sumanth and Diana Inkpen 115

Predicting Ratings for New Movie Releases from Twitter Content
Wernard Schmit and Sander Wubben 122

Beyond Sentiment: Social Psychological Analysis of Political Facebook Comments in Hungary
Márton Miháltz, Tamás Váradi, István Csertő, Éva Fülöp, Tibor Pólya and Pál Kővágó 127

Verb-centered Sentiment Inference with Description Logics
Manfred Klenner 134

Mining HEXACO personality traits from Enterprise Social Media
Priyanka Sinha, Lipika Dey, Pabitra Mitra and Anupam Basu 140

Opinion Holder and Target Extraction for Verb-based Opinion Predicates – The Problem is Not Solved
Michael Wiegand, Marc Schulder and Josef Ruppenhofer 148

Synthetic Text Generation for Sentiment Analysis
Umar Maqsud 156

Detecting speculations, contrasts and conditionals in consumer reviews
Maria Skeppstedt, Teri Schamp-Bjerede, Magnus Sahlgren, Carita Paradis and Andreas Kerren 162

Using Combined Lexical Resources to Identify Hashtag Types
Credell Simeon and Robert Hilderman 169

Sentiment Classification via a Response Recalibration Framework
Phillip Smith and Mark Lee 175

Workshop Program

Thursday, September 17, 2015

09:00–09:05 Opening Remarks

09:05–09:40 Invited talk

Multilingual Affect Polarity and Valence Prediction in Metaphors
Zornitsa Kozareva

09:40–10:30 Session 1: Multilingual Sentiment Analysis in Social Media

09:40–10:10 *Sentiment Analysis on Monolingual, Multilingual and Code-Switching Twitter Corpora*
David Vilares, Miguel A. Alonso and Carlos Gómez-Rodríguez

10:10–10:30 *Connotation in Translation*
Marine Carpuat

10:30–11:00 ***Coffee Break***

11:00–12:30 Session 2: The Influence of Context for Sentiment Analysis in Social Media

11:00–11:30 *Enhanced Twitter Sentiment Classification Using Contextual Information*
Soroush Vosoughi, Helen Zhou and deb roy

11:30–12:00 *Your Sentiment Precedes You: Using an author's historical tweets to predict sarcasm*
Anupam Khattri, Aditya Joshi, Pushpak Bhattacharyya and Mark Carman

12:00–12:30 *Optimising Agile Social Media Analysis*
Thomas Kober and David Weir

12:30–14:00 ***Lunch Break***

Thursday, September 17, 2015 (continued)

14:00–15:30 Session 3: Beyond Review Mining

14:00–14:30 *Utilizing review analysis to suggest product advertisement improvements*
Takaaki Tsunoda, Takashi Inui and Satoshi Sekine

14:30–15:00 *Towards Opinion Mining from Reviews for the Prediction of Product Rankings*
Wiltrud Kessler, Roman Klinger and Jonas Kuhn

15:00–15:30 *Classification of deceptive opinions using a low dimensionality representation*
Leticia Cagnina and Paolo Rosso

15:30–16:00 ***Coffee Break***

16:00–17:20 Session 4: Lexicon Generation and Visualisation for Sentiment Analysis

16:00–16:30 *Extending effect annotation with lexical decomposition*
Josef Ruppenhofer and Jasper Brandes

16:30–17:00 *Analysing domain suitability of a sentiment lexicon by identifying distributionally bipolar words*
Lucie Flekova, Daniel Preoţiuc-Pietro and Eugen Ruppert

17:00–17:20 *Imagisaurus: An Interactive Visualizer of Valence and Emotion in the Roget's Thesaurus*
Saif Mohammad

17:20–17:30 ***Break***

Thursday, September 17, 2015 (continued)

17:30–19:20 Session 5: Posters

Personality Traits on Twitter—or—How to Get 1,500 Personality Tests in a Week
Barbara Plank and Dirk Hovy

Negation Scope Detection for Twitter Sentiment Analysis
Johan Reitan, Jørgen Faret, Björn Gambäck and Lars Bungum

A Linguistically Informed Convolutional Neural Network
Sebastian Ebert, Ngoc Thang Vu and Hinrich Schütze

How much does word sense disambiguation help in sentiment analysis of micropost data?
Chiraag Sumanth and Diana Inkpen

Predicting Ratings for New Movie Releases from Twitter Content
Wernard Schmit and Sander Wubben

Beyond Sentiment: Social Psychological Analysis of Political Facebook Comments in Hungary
Márton Miháltz, Tamás Váradi, István Csertő, Éva Fülöp, Tibor Pólya and Pál Kővágó

Verb-centered Sentiment Inference with Description Logics
Manfred Klenner

Mining HEXACO personality traits from Enterprise Social Media
Priyanka Sinha, Lipika Dey, Pabitra Mitra and Anupam Basu

Opinion Holder and Target Extraction for Verb-based Opinion Predicates – The Problem is Not Solved
Michael Wiegand, Marc Schulder and Josef Ruppenhofer

Synthetic Text Generation for Sentiment Analysis
Umar Maqsud

Detecting speculations, contrasts and conditionals in consumer reviews
Maria Skeppstedt, Teri Schamp-Bjerede, Magnus Sahlgren, Carita Paradis and Andreas Kerren

Using Combined Lexical Resources to Identify Hashtag Types
Credell Simeon and Robert Hilderman

Thursday, September 17, 2015 (continued)

Sentiment Classification via a Response Recalibration Framework
Phillip Smith and Mark Lee

19:20–19:30 Closing discussion - "Where do we go from here?"