EMNLP 2017

8th Workshop on Computational Approaches to Subjectivity, Sentiment and Social Media Analysis WASSA 2017

Proceedings of the Workshop

September 8, 2017 Copenhagen, Denmark ©2017 The Association for Computational Linguistics

Order copies of this and other ACL proceedings from:

Association for Computational Linguistics (ACL) 209 N. Eighth Street Stroudsburg, PA 18360 USA Tel: +1-570-476-8006 Fax: +1-570-476-0860 acl@aclweb.org

ISBN 978-1-945626-95-1

Introduction

The word for 2016 was "post-truth", marking the fact that in the era of Social Media and citizen-created or reported news, the border between facts and speculation, verifiable reality and opinions has become blurred. The phenomenon of fake news has created an avalanche of public and private action, from big companies to universities and individual researchers, with the goal to find mechanisms through which this type of news can be identified (automatically).

In this context, too (or even more), detecting and analyzing opinions, arguments, stance as well as detecting the emotional effect that facts (whether truthful or not) can have on the public has become of paramount importance.

WASSA 2017 was organized in conjunction to the Conference on Empirical Methods in Natural Language Processing on September 8th, 2017, in Copenhagen, Denmark.

For this year's edition of WASSA, we received a total of 41 submissions for the main workshop, from universities and research centers all over the world, out of which 10 were accepted as long and another 5 as short papers. The main topics of the accepted papers are related to stance detection, argument mining and beyond sentiment analysic challenges, such as irony detection or linking emotions to needs and values - e.g. psychometrics.

Apart from that, for the first time, we presented a shared task on automatically detecting intensity of emotion felt by the speaker of a tweet: WASSA-2017 Shared Task on Emotion Intensity. Twenty-two teams participated in the shared task, with results that showcase the latest developments in the theoretical and applied areas of Sentiment Analysis and Opinion Mining.

We would like to thank the EMNLP 2017 Organizers and Workshop Chairs for the help and support, 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 speakers – Dr. Iryna Gurevych, Aditya Joshi and Dr. Viktor Pekar - for accepting to deliver the keynote talks, opening new horizons for research and applications of Sentiment Analysis.

Alexandra Balahur, Saif M. Mohammad and Erik van der Goot

WASSA 2017 Chairs

Organizers:

Alexandra Balahur, European Commission Joint Research Centre Saif M. Mohammad, National Research Council Canada Erik van der Goot, European Commission Joint Research Centre

Program Committee:

Sabine Bergler - Concordia University, Canada

Felipe Bravo - University of Waikato, New Zealand

Nicoletta Calzolari - CNR Pisa, Italy

Erik Cambria - University of Stirling, U.K.

Fermin Cruz Mata - University of Seville, Spain

Montse Cuadros - Vicomtech, Spain

Lingjia Deng - University of Pittsburg, U.S.A.

Michael Gamon – Microsoft, U.S.A.

Veronique Hoste - University of Ghent, Belgium

Carlos Iglesias - Universidad Politecnica de Madrid, Spain

Ruben Izquierdo Bevia - Nuance, Spain

Aditya Joshi - IITB-Monash Research Academy, India

Manfred Klenner, University of Zuerich, Switzerland

Roman Klinger, University of Stuttgart, Germany

Emiel Krahmer - University of Tilburg, The Netherlands

Isa Maks - Vrije Universiteit Amsterdam, The Netherlands

Maite Martin Valdivia - University of Jaen, Spain

Karo Moilanen - University of Oxford, U.K.

Günter Neumann - DFKI, Germany

Malvina Nissim - University of Groeningen, The Netherlands

Constantin Orasan - University of Wolverhampton, U.K.

Viviana Patti - University of Torino, Italy

Viktor Pekar - University of Wolverhampton, U.K.

Jose-Manuel Perea-Ortega - University of Extremadura, Spain

Daniel Preotiuc-Pietro - University of Pennsylvania, U.S.A.

Paolo Rosso - Technical University of Valencia, Spain

Josef Steinberger - West Bohemia University Prague, The Czech Republic

Mike Thelwall - University of Wolverhampton, U.K

Mariët Theune - University of Twente, The Netherlands

Dan Tufis - RACAI, Romania

Alfonso Ureña - University of Jaén, Spain

Tony Veale - University College Dublin, Ireland

Michael Wiegand - Saarland University, Germany

Taras Zagibalov - Brantwatch, U.K.

Invited Speakers:

Dr. Iryna Gurevych - University of Darmstadt, Germany Dr. Viktor Pekar - University of Birmingham, U.K. Aditya Joshi - IIIT Hyderabad, India

Table of Contents

Detecting Sarcasm Using Different Forms Of Incongruity Aditya Joshi
Assessing State-of-the-Art Sentiment Models on State-of-the-Art Sentiment Datasets Jeremy Barnes, Roman Klinger and Sabine Schulte im Walde
Annotation, Modelling and Analysis of Fine-Grained Emotions on a Stance and Sentiment Detection Corpus
Hendrik Schuff, Jeremy Barnes, Julian Mohme, Sebastian Padó and Roman Klinger
Ranking Right-Wing Extremist Social Media Profiles by Similarity to Democratic and Extremist Groups Matthias Hartung, Roman Klinger, Franziska Schmidtke and Lars Vogel
WASSA-2017 Shared Task on Emotion Intensity Saif Mohammad and Felipe Bravo-Marquez
IMS at EmoInt-2017: Emotion Intensity Prediction with Affective Norms, Automatically Extended Resources and Deep Learning Maximilian Köper, Evgeny Kim and Roman Klinger
<i>Prayas at EmoInt 2017: An Ensemble of Deep Neural Architectures for Emotion Intensity Prediction in Tweets</i>
Prayas Jain, Pranav Goel, Devang Kulshreshtha and Kaushal Kumar Shukla
Latest News in Computational Argumentation: Surfing on the Deep Learning Wave, Scuba Diving in the Abyss of Fundamental Questions Iryna Gurevych
<i>Towards Syntactic Iberian Polarity Classification</i> David Vilares, Marcos Garcia, Miguel A. Alonso and Carlos Gómez-Rodríguez
Toward Stance Classification Based on Claim Microstructures Filip Boltuzic and Jan Šnajder 74
<i>Linguistic Reflexes of Well-Being and Happiness in Echo</i> Jiaqi Wu, Marilyn Walker, Pranav Anand and Steve Whittaker
Forecasting Consumer Spending from Purchase Intentions Expressed on Social Media Viktor Pekar and Jane Binner 92
Mining fine-grained opinions on closed captions of YouTube videos with an attention-RNN Edison Marrese-Taylor, Jorge Balazs and Yutaka Matsuo
Understanding human values and their emotional effect Alexandra Balahur
Did you ever read about Frogs drinking Coffee? Investigating the Compositionality of Multi-Emoji Expressions
Rebeca Padilla López and Fabienne Cap 113
Investigating Redundancy in Emoji Use: Study on a Twitter Based Corpus Giulia Donato and Patrizia Paggio

Modeling Temporal Progression of Emotional Status in Mental Health Forum: A Recurrent Neural Neura
<i>Towards an integrated pipeline for aspect-based sentiment analysis in various domains</i> Orphee De Clercq, Els Lefever, Gilles Jacobs, Tijl Carpels and Veronique Hoste
Building a SentiWordNet for Odia Gaurav Mohanty, Abishek Kannan and Radhika Mamidi
Lexicon Integrated CNN Models with Attention for Sentiment Analysis Bonggun Shin, Timothy Lee and Jinho D. Choi
<i>Explaining Recurrent Neural Network Predictions in Sentiment Analysis</i> Leila Arras, Grégoire Montavon, Klaus-Robert Müller and Wojciech Samek
GradAscent at EmoInt-2017: Character and Word Level Recurrent Neural Network Models for Tweet Emotion Intensity Detection Egor Lakomkin, Chandrakant Bothe and Stefan Wermter
NUIG at EmoInt-2017: BiLSTM and SVR Ensemble to Detect Emotion Intensity Vladimir Andryushechkin, Ian Wood and James O' Neill
Unsupervised Aspect Term Extraction with B-LSTM & CRF using Automatically Labelled Datasets Athanasios Giannakopoulos, Claudiu Musat, Andreea Hossmann and Michael Baeriswyl 180
PLN-PUCRS at EmoInt-2017: Psycholinguistic features for emotion intensity prediction in tweets Henrique Santos and Renata Vieira
<i>Textmining at EmoInt-2017: A Deep Learning Approach to Sentiment Intensity Scoring of English Tweets</i> Hardik Meisheri, Rupsa Saha, Priyanka Sinha and Lipika Dey
YNU-HPCC at EmoInt-2017: Using a CNN-LSTM Model for Sentiment Intensity Prediction You Zhang, Hang Yuan, Jin Wang and Xuejie Zhang
Seernet at EmoInt-2017: Tweet Emotion Intensity Estimator Venkatesh Duppada and Sushant Hiray
IITP at EmoInt-2017: Measuring Intensity of Emotions using Sentence Embeddings and Optimized Fea- tures
Md Shad Akhtar, Palaash Sawant, Asif Ekbal, Jyoti Pawar and Pushpak Bhattacharyya 212
<i>NSEmo at EmoInt-2017: An Ensemble to Predict Emotion Intensity in Tweets</i> Sreekanth Madisetty and Maunendra Sankar Desarkar219
<i>Tecnolengua Lingmotif at EmoInt-2017: A lexicon-based approach</i> Antonio Moreno-Ortiz
<i>EmoAtt at EmoInt-2017: Inner attention sentence embedding for Emotion Intensity</i> Edison Marrese-Taylor and Yutaka Matsuo
YZU-NLP at EmoInt-2017: Determining Emotion Intensity Using a Bi-directional LSTM-CNN Model Yuanye He, Liang-Chih Yu, K. Robert Lai and Weiyi Liu 238
DMGroup at EmoInt-2017: Emotion Intensity Using Ensemble Method Song Jiang and Xiaotian Han 243

UWat-Emote at EmoInt-2017: Emotion Intensity Detection using Affect Clues, Sentiment Polarity and		
Word Embeddings		
Vineet John and Olga Vechtomova		
LIPN-UAM at EmoInt-2017: Combination of Lexicon-based features and Sentence-level Vector Repre- sentations for Emotion Intensity Determination		
Davide Buscaldi and Belem Priego		
deepCybErNet at EmoInt-2017: Deep Emotion Intensities in Tweets		

Vinayakumar R, premjith b, sachin kumar s, soman kp and Prabaharan Poornachandran 259

Workshop Program

Friday, September 8, 2017

08:30-08:40	Opening Remarks
00.00 00.10	opening itemating

- 08:40–10:30 Session 1: Irony, stance and negotiating interpersonal meaning
- 08:40–09:15 *Detecting Sarcasm Using Different Forms Of Incongruity* Aditya Joshi
- 09:15–09:40 Assessing State-of-the-Art Sentiment Models on State-of-the-Art Sentiment Datasets Jeremy Barnes, Roman Klinger and Sabine Schulte im Walde
- 09:40–10:05 Annotation, Modelling and Analysis of Fine-Grained Emotions on a Stance and Sentiment Detection Corpus Hendrik Schuff, Jeremy Barnes, Julian Mohme, Sebastian Padó and Roman Klinger
- 10:05–10:30 Ranking Right-Wing Extremist Social Media Profiles by Similarity to Democratic and Extremist Groups Matthias Hartung, Roman Klinger, Franziska Schmidtke and Lars Vogel
- 10:30–11:00 Coffee Break
- 11:00–12:30 Session 2: Emotion Intensity Task
- 11:00–11:40 WASSA-2017 Shared Task on Emotion Intensity Saif Mohammad and Felipe Bravo-Marquez
- 11:40–12:05 *IMS at EmoInt-2017: Emotion Intensity Prediction with Affective Norms, Automatically Extended Resources and Deep Learning* Maximilian Köper, Evgeny Kim and Roman Klinger
- 12:05–12:30 Prayas at EmoInt 2017: An Ensemble of Deep Neural Architectures for Emotion Intensity Prediction in Tweets Prayas Jain, Pranav Goel, Devang Kulshreshtha and Kaushal Kumar Shukla

12:30–14:00 Lunch Break

14:00–15:30 Session 3: Sentiment, stance and emotion

- 14:00–14:35 Latest News in Computational Argumentation: Surfing on the Deep Learning Wave, Scuba Diving in the Abyss of Fundamental Questions Iryna Gurevych
- 14:35–15:00 *Towards Syntactic Iberian Polarity Classification* David Vilares, Marcos Garcia, Miguel A. Alonso and Carlos Gómez-Rodríguez
- 15:00–15:15 *Toward Stance Classification Based on Claim Microstructures* Filip Boltuzic and Jan Šnajder
- 15:15–15:30 *Linguistic Reflexes of Well-Being and Happiness in Echo* Jiaqi Wu, Marilyn Walker, Pranav Anand and Steve Whittaker
- 15:30–16:00 Coffee Break
- 16:00–17:15 Session 4: Preferences and values as determiners of sentiment and emotion
- 16:00–16:35 Forecasting Consumer Spending from Purchase Intentions Expressed on Social Media
 Viktor Pekar and Jane Binner
- 16:25–16:50 *Mining fine-grained opinions on closed captions of YouTube videos with an attention-RNN* Edison Marrese-Taylor, Jorge Balazs and Yutaka Matsuo
- 16:50–17:15 Understanding human values and their emotional effect Alexandra Balahur
- 17:15-17:25 Break

17:25–18:25 Session 5: Posters (Main Workshop and Emotion Intensity Task)

Did you ever read about Frogs drinking Coffee? Investigating the Compositionality of Multi-Emoji Expressions Rebeca Padilla López and Fabienne Cap

Investigating Redundancy in Emoji Use: Study on a Twitter Based Corpus Giulia Donato and Patrizia Paggio

Modeling Temporal Progression of Emotional Status in Mental Health Forum: A Recurrent Neural Net Approach Kishaloy Halder, Lahari Poddar and Min-Yen Kan

Towards an integrated pipeline for aspect-based sentiment analysis in various domains

Orphee De Clercq, Els Lefever, Gilles Jacobs, Tijl Carpels and Veronique Hoste

Building a SentiWordNet for Odia

Gaurav Mohanty, Abishek Kannan and Radhika Mamidi

Lexicon Integrated CNN Models with Attention for Sentiment Analysis Bonggun Shin, Timothy Lee and Jinho D. Choi

Explaining Recurrent Neural Network Predictions in Sentiment Analysis Leila Arras, Grégoire Montavon, Klaus-Robert Müller and Wojciech Samek

GradAscent at EmoInt-2017: Character and Word Level Recurrent Neural Network Models for Tweet Emotion Intensity Detection Egor Lakomkin, Chandrakant Bothe and Stefan Wermter

NUIG at EmoInt-2017: BiLSTM and SVR Ensemble to Detect Emotion Intensity Vladimir Andryushechkin, Ian Wood and James O' Neill

Unsupervised Aspect Term Extraction with B-LSTM & CRF using Automatically Labelled Datasets

Athanasios Giannakopoulos, Claudiu Musat, Andreea Hossmann and Michael Baeriswyl

PLN-PUCRS at EmoInt-2017: Psycholinguistic features for emotion intensity prediction in tweets

Henrique Santos and Renata Vieira

Textmining at EmoInt-2017: A Deep Learning Approach to Sentiment Intensity Scoring of English Tweets Hardik Meisheri, Rupsa Saha, Priyanka Sinha and Lipika Dey

YNU-HPCC at EmoInt-2017: Using a CNN-LSTM Model for Sentiment Intensity Prediction You Zhang, Hang Yuan, Jin Wang and Xuejie Zhang

Seernet at EmoInt-2017: Tweet Emotion Intensity Estimator Venkatesh Duppada and Sushant Hiray

IITP at EmoInt-2017: Measuring Intensity of Emotions using Sentence Embeddings and Optimized Features

Md Shad Akhtar, Palaash Sawant, Asif Ekbal, Jyoti Pawar and Pushpak Bhattacharyya

NSEmo at EmoInt-2017: An Ensemble to Predict Emotion Intensity in Tweets Sreekanth Madisetty and Maunendra Sankar Desarkar

Tecnolengua Lingmotif at EmoInt-2017: A lexicon-based approach Antonio Moreno-Ortiz

EmoAtt at EmoInt-2017: Inner attention sentence embedding for Emotion Intensity Edison Marrese-Taylor and Yutaka Matsuo

YZU-NLP at EmoInt-2017: Determining Emotion Intensity Using a Bi-directional LSTM-CNN Model Yuanye He, Liang-Chih Yu, K. Robert Lai and Weiyi Liu

DMGroup at EmoInt-2017: Emotion Intensity Using Ensemble Method Song Jiang and Xiaotian Han

UWat-Emote at EmoInt-2017: Emotion Intensity Detection using Affect Clues, Sentiment Polarity and Word Embeddings Vineet John and Olga Vechtomova

LIPN-UAM at EmoInt-2017: Combination of Lexicon-based features and Sentencelevel Vector Representations for Emotion Intensity Determination Davide Buscaldi and Belem Priego

deepCybErNet at EmoInt-2017: Deep Emotion Intensities in Tweets Vinayakumar R, premjith b, sachin kumar s, soman kp and Prabaharan Poornachandran

18:25–18:30 Closing remarks