

EMNLP 2017

**Workshop on Building Linguistically Generalizable NLP
Systems**

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 978-1-945626-86-9

Introduction

While the field of natural language processing has made tremendous strides as a result of machine learning techniques, systems trained within this traditional model typically do not generalize well beyond the characteristics of their training data. Especially with the influx of deep learning approaches in NLP, it is increasingly the case not only that systems are restricted in the conditions under which they work well—but also that we have little idea what exactly those conditions are.

We believe that linguistic knowledge will be instrumental to addressing these issues, so for this workshop we designed a special shared task, with the goal of bringing together researchers from NLP and linguistics to test the true linguistic generalization capacities of NLP systems. In addition to the shared task, the workshop also welcomed research contribution papers on the topic of linguistically generalizable NLP systems.

EMNLP 2017 hosts the first iteration of the Workshop on Building Linguistically Generalizable NLP Systems, in Copenhagen, Denmark on September 8, 2017.

This volume contains an overview paper describing the workshop and shared task, in addition to Shared Task Description papers from our task participants, and several Research Contribution papers. We received 13 paper submissions, including 9 in the Research Contribution track and 4 Shared Task Description track. We accepted 9 submissions: 5 Research Contributions, and 4 Shared Task Descriptions.

We are grateful to our program committee, our participants, and all authors who submitted papers for consideration, for making possible the first iteration of this workshop and shared task. We also thank the EMNLP 2017 organizers for their support.

The BLGNLP Organizers,
Emily M. Bender, Hal Daumé III, Allyson Ettinger, Sudha Rao

Organizers:

Emily M. Bender, University of Washington
Hal Daumé III, University of Maryland
Allyson Ettinger, University of Maryland
Sudha Rao, University of Maryland

Program Committee:

Doug Arnold, University of Essex
Ash Asudeh, Oxford University, Carleton University
Johan Bos, University of Groningen
Miriam Butt, Universität Konstanz
Rui Chaves, University at Buffalo
Berthold Crysmann, CNRS
Michael Yoshitaka Erlewine, National University of Singapore
Anette Frank, University of Heidelberg
Petter Haugereid, University of Bergen
Lars Hellan, Norwegian University of Science and Technology
Fabiola Henri, University of Kentucky
Julia Hockenmaier, University of Illinois at Urbana-Champaign
Jeremy G Kahn, University of Washington
Chris Kennedy, University of Chicago
Tracy King, A9
Jean-Pierre Koenig, University at Buffalo
Alex Lascarides, University of Edinburgh
Tal Linzen, Johns Hopkins University
Rob Malouf, San Diego State University
Marie-Catherine de Marneffe, The Ohio State University
Yusuke Miyao, National Institute of Informatics
Stefan Müller, Humboldt University Berlin
Tsuneko Nakazawa, University of Tokyo
Gertjan van Noord, University of Groningen
Stephan Oepen, University of Oslo
Petya Osenova, IICT-BAS
Alexis Palmer, University of North Texas
Christopher Potts, Stanford University
Matthew Purver, Queen Mary University of London
Philip Resnik, University of Maryland
Sanghoun Song, Incheon National University
Anders Søgaard, University of Copenhagen
Ida Toivonen, Carleton University
Aline Villavicencio, Federal University of Rio Grande do Sul
Tom Wasow, Stanford University
Shuly Wintner, University of Haifa
Fei Xia, University of Washington
Ping Xue, Boeing Research & Technology
Erhard Hinrichs, University of Tubingen

Invited Speakers:

Aurelie Herbelot, Universitat Pompeu Fabra

Grzegorz Chrupała, Tilburg University

Martha Palmer, University of Colorado at Boulder

Table of Contents

<i>Towards Linguistically Generalizable NLP Systems: A Workshop and Shared Task</i> Allyson Ettinger, Sudha Rao, Hal Daumé III and Emily M. Bender	1
<i>Analysing Errors of Open Information Extraction Systems</i> Rudolf Schneider, Tom Oberhauser, Tobias Klatt, Felix A. Gers and Alexander Löser	11
<i>Massively Multilingual Neural Grapheme-to-Phoneme Conversion</i> Ben Peters, Jon Dehdari and Josef van Genabith	19
<i>BIBI System Description: Building with CNNs and Breaking with Deep Reinforcement Learning</i> Yitong Li, Trevor Cohn and Timothy Baldwin	27
<i>Breaking NLP: Using Morphosyntax, Semantics, Pragmatics and World Knowledge to Fool Sentiment Analysis Systems</i> Taylor Mahler, Willy Cheung, Micha Elsner, David King, Marie-Catherine de Marneffe, Cory Shain, Symon Stevens-Guille and Michael White	33
<i>An Adaptable Lexical Simplification Architecture for Major Ibero-Romance Languages</i> Daniel Ferrés, Horacio Saggion and Xavier Gómez Guinovart	40
<i>Cross-genre Document Retrieval: Matching between Conversational and Formal Writings</i> Tomasz Jurczyk and Jinho D. Choi	48
<i>ACTSA: Annotated Corpus for Telugu Sentiment Analysis</i> Sandeep Sricharan Mukku and Radhika Mamidi	54
<i>Strawman: An Ensemble of Deep Bag-of-Ngrams for Sentiment Analysis</i> Kyunghyun Cho	59
<i>Breaking Sentiment Analysis of Movie Reviews</i> Ieva Staliūnaitė and Ben Bonfil	61

Conference Program

Friday, September 8, 2017

09:00–09:15 *Welcome Note*

Towards Linguistically Generalizable NLP Systems: A Workshop and Shared Task

Allyson Ettinger, Sudha Rao, Hal Daumé III and Emily M. Bender

09:15–10:00 *Invited Talk*

Aurelie Herbelot

10:00–12:10 **Session 1: Research Contribution Papers**

10:00–10:25 *Analysing Errors of Open Information Extraction Systems*

Rudolf Schneider, Tom Oberhauser, Tobias Klatt, Felix A. Gers and Alexander Löser

10:30–11:00 *Coffee Break*

11:00–11:45 *Invited Talk*

Grzegorz Chrupała

11:45–12:10 *Massively Multilingual Neural Grapheme-to-Phoneme Conversion*

Ben Peters, Jon Dehdari and Josef van Genabith

12:10–12:30 *"Build It Break It, Language Edition" Shared Task Overview*

12:30–14:00 *Lunch Break*

14:00–14:45 *Invited Talk*

Martha Palmer

Friday, September 8, 2017 (continued)

14:45–15:35 Session 2: Shared Task Description Papers

14:45–15:10 *BIBI System Description: Building with CNNs and Breaking with Deep Reinforcement Learning*
Yitong Li, Trevor Cohn and Timothy Baldwin

15:10–15:35 *Breaking NLP: Using Morphosyntax, Semantics, Pragmatics and World Knowledge to Fool Sentiment Analysis Systems*
Taylor Mahler, Willy Cheung, Micha Elsner, David King, Marie-Catherine de Marneffe, Cory Shain, Symon Stevens-Guille and Michael White

15:35–16:00 Coffee Break

16:00–17:15 Poster Session

An Adaptable Lexical Simplification Architecture for Major Ibero-Romance Languages
Daniel Ferrés, Horacio Saggion and Xavier Gómez Guinovart

Cross-genre Document Retrieval: Matching between Conversational and Formal Writings
Tomasz Jurczyk and Jinho D. Choi

ACTSA: Annotated Corpus for Telugu Sentiment Analysis
Sandeep Sricharan Mukku and Radhika Mamidi

Strawman: An Ensemble of Deep Bag-of-Ngrams for Sentiment Analysis
Kyunghyun Cho

Breaking Sentiment Analysis of Movie Reviews
Ieva Staliūnaitė and Ben Bonfil

17:15–17:30 Closing Remarks