19th Conference on Computational Natural Language Learning

(CoNLL 2015)

Co-located with ACL-IJCNLP 2015

Beijing, China
30 – 31 July 2015

ISBN: 978-1-5108-0938-3

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571

Some format issues inherent in the e-media version may also appear in this print version.

Copyright© (2015) by the Association for Computational Linguistics
All rights reserved.

Printed by Curran Associates, Inc. (2015)

For permission requests, please contact the Association for Computational Linguistics
at the address below.

Association for Computational Linguistics
209 N. Eighth Street
Stroudsburg, Pennsylvania 18360

Phone: 1-570-476-8006
Fax: 1-570-476-0860

acl@aclweb.org

Additional copies of this publication are available from:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: 845-758-0400
Fax: 845-758-2634
Email: curran@proceedings.com
Web: www.proceedings.com

Table of Contents

Keynote Talks

On Spectral Graphical Models, and a New Look at Latent Variable Modeling in Natural Language Processing
Eric Xing xx

Does the Success of Deep Neural Network Language Processing Mean – Finally! – the End of Theoretical Linguistics?
Paul Smolensky xxii

Long Papers

A Coactive Learning View of Online Structured Prediction in Statistical Machine Translation
Artem Sokolov, Stefan Riezler and Shay B. Cohen 1

A Joint Framework for Coreference Resolution and Mention Head Detection
Haoruo Peng, Kai-Wei Chang and Dan Roth 12

A Supertag-Context Model for Weakly-Supervised CCG Parser Learning
Dan Garrette, Chris Dyer, Jason Baldridge and Noah A. Smith 22

A Synchronous Hyperedge Replacement Grammar based approach for AMR parsing
Xiaochang Peng, Linfeng Song and Daniel Gildea 32

AIDA2: A Hybrid Approach for Token and Sentence Level Dialect Identification in Arabic
Mohamed Al-Badrashiny, Heba Elfardy and Mona Diab 42

An Iterative Similarity based Adaptation Technique for Cross-domain Text Classification
Himanshu Sharad Bhatt, Deepali Semwal and Shourya Roy 52

Analyzing Optimization for Statistical Machine Translation: MERT Learns Verbosity, PRO Learns Length
Francisco Guzmán, Preslav Nakov and Stephan Vogel 62

Annotation Projection-based Representation Learning for Cross-lingual Dependency Parsing
MIN XIAO and Yuhong Guo 73

Big Data Small Data, In Domain Out-of Domain, Known Word Unknown Word: The Impact of Word Representations on Sequence Labelling Tasks
Lizhen Qu, Gabriela Ferraro, Liyuan Zhou, Weiwei Hou, Nathan Schneider and Timothy Baldwin 83

Contrastive Analysis with Predictive Power: Typology Driven Estimation of Grammatical Error Distributions in ESL
Yevgeni Berzak, Roi Reichart and Boris Katz 94

Cross-lingual syntactic variation over age and gender
Anders Johannsen, Dirk Hovy and Anders Søgaard 103

Cross-lingual Transfer for Unsupervised Dependency Parsing Without Parallel Data
Long Duong, Trevor Cohn, Steven Bird and Paul Cook 113

Detecting Semantically Equivalent Questions in Online User Forums
Dasha Bogdanova, Cicero dos Santos, Luciano Barbosa and Bianca Zadrozny 123

Entity Linking Korean Text: An Unsupervised Learning Approach using Semantic Relations
Youngsik Kim and Key-Sun Choi 132

Incremental Recurrent Neural Network Dependency Parser with Search-based Discriminative Training
Majid Yazdani and James Henderson 142

Instance Selection Improves Cross-Lingual Model Training for Fine-Grained Sentiment Analysis
Roman Klinger and Philipp Cimiano 153

Labeled Morphological Segmentation with Semi-Markov Models
Ryan Cotterell, Thomas Müller, Alexander Fraser and Hinrich Schütze 164

Learning to Exploit Structured Resources for Lexical Inference
Vered Shwartz, Omer Levy, Ido Dagan and Jacob Goldberger 175

Linking Entities Across Images and Text
Rebecka Weegar, Kalle Åström and Pierre Nugues 185

Making the Most of Crowdsourced Document Annotations: Confused Supervised LDA
Paul Felt, Eric Ringger, Jordan Boyd-Graber and Kevin Seppi 194

Multichannel Variable-Size Convolution for Sentence Classification
Wenpeng Yin and Hinrich Schütze 204

Opinion Holder and Target Extraction based on the Induction of Verbal Categories
Michael Wiegand and Josef Ruppenhofer 215

Quantity, Contrast, and Convention in Cross-Situated Language Comprehension
Ian Perera and James Allen 226

Recovering Traceability Links in Requirements Documents
Zeheng Li, Mingrui Chen, LiGuo Huang and Vincent Ng 237

Structural and lexical factors in adjective placement in complex noun phrases across Romance languages
Kristina Gulordava and Paola Merlo 247

Symmetric Pattern Based Word Embeddings for Improved Word Similarity Prediction
Roy Schwartz, Roi Reichart and Ari Rappoport 258

Task-Oriented Learning of Word Embeddings for Semantic Relation Classification
Kazuma Hashimoto, Pontus Stenetorp, Makoto Miwa and Yoshimasa Tsuruoka 268

Temporal Information Extraction from Korean Texts
Young-Seob Jeong, Zae Myung Kim, Hyun-Woo Do, Chae-Gyun Lim and Ho-Jin Choi 279

Transition-based Spinal Parsing
Miguel Ballesteros and Xavier Carreras 289

Short Papers

Accurate Cross-lingual Projection between Count-based Word Vectors by Exploiting Translatable Context Pairs
Shonosuke Ishiwatari, Nobuhiro Kaji, Naoki Yoshinaga, Masashi Toyoda and Masaru Kitsuregawa . . . 300

Deep Neural Language Models for Machine Translation
Thang Luong, Michael Kayser and Christopher D. Manning . . . 305

Finding Opinion Manipulation Trolls in News Community Forums
Todor Mihaylov, Georgi Georgiev and Preslav Nakov . . . 310

Do dependency parsing metrics correlate with human judgments?
Barbara Plank, Héctor Martínez Alonso, Željko Agić, Danijela Merkler and Anders Søgaard . . . 315

Feature Selection for Short Text Classification using Wavelet Packet Transform
Anuj Mahajan, sharmistha Jat and Shourya Roy . . . 321

Learning Adjective Meanings with a Tensor-Based Skip-Gram Model
Jean Maillard and Stephen Clark . . . 327

Model Selection for Type-Supervised Learning with Application to POS Tagging
Kristina Toutanova, Waleed Ammar, Pallavi Choudhury and Hoifung Poon . . . 332

One Million Sense-Tagged Instances for Word Sense Disambiguation and Induction
Kaveh Taghipour and Hwee Tou Ng . . . 338

Reading behavior predicts syntactic categories
Maria Barrett and Anders Søgaard . . . 345