EMNLP-CoNLL 2007

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Preface

Welcome to EMNLP-CoNLL 2007, an unprecedented joint meeting of the Conference on Empirical Methods in Natural Language Processing (EMNLP) and the Conference on Computational Natural Language Learning (CoNLL).

The conference is a joint effort of SIGDAT and SIGNLL, the ACL Special Interest Groups that usually organize the annual EMNLP and CoNLL conferences, respectively.

Our field is growing rapidly. This year, EMNLP-CoNLL considered a remarkable 398 submissions,[1] accepting 109 of them (for an acceptance rate of 27%). It is startling to realize that even the ACL conferences were not this large until two years ago.

Only 66 of the accepted papers were scheduled for presentation as talks, and 43 more as posters. We took pains to ensure that the poster sessions would be leisurely and interactive.

In addition, two sessions of the conference and 22 specially designated short papers in this volume are devoted to the CoNLL Shared Task competition, an annual tradition. The 2007 competition concerns dependency parsing, with both a multilingual track and a domain adaptation track.

Several innovations this year have received positive feedback and are worth mentioning:

- To encourage thorough citation of related work, a paper's References section was *not* counted against the 8-page limit for submitted papers or the 9-page limit for camera-ready papers.

  (Note that authors were allowed an extra page in the camera-ready version to help them effectively address reviewers' comments, following an innovation at EMNLP 2006.)

- The review form was redesigned (starting from the fine review form of EACL 2006) to provide clearer and more consistent guidance to reviewers, area chairs, and authors. Authors were directed to consult the review form, which was posted at the conference website, while preparing their submissions and when interpreting their review scores.

- Some of our submissions (fewer than 1/3) appeared to be revisions of rejected ACL 2007 submissions. Where possible, we tried to conserve valuable information and effort from the ACL 2007 reviewing process by re-assigning one, though only one, of the ACL reviewers to such a paper.

  Such re-reviewers were instructed to give the new, revised submission the fresh reading that it deserved, but they were also encouraged to bring up points that still applied from any of the ACL 2007 reviews or discussion.

[1] Of the original 419 submissions, 17 were withdrawn (usually upon acceptance elsewhere), and 4 more were rejected without review (for violating the conference's standards on length, anonymization, or plagiarism).

- By accepting many posters and presenting them all *simultaneously*, we hoped to accommodate a large audience without overcrowding at each poster.

  The large number of posters in turn required a long period for poster viewing. With a total of 5 hours spanning two receptions, a conferencegoer can engage with nearly half of the posters for 15 minutes of personalized discussion each. This makes the posters roughly as visible as the talks, which are split into parallel sessions.

- In addition to the Best Paper Award (see Session 1), we are considering organizing—if logistically feasible—an "Audience Choice" award for the most worthwhile *presentation* at the conference. Such a prize would reward authors who not only produced outstanding research but also communicated it clearly and enjoyably at the conference meeting.

It is my privilege to thank the many individuals—most of them listed on the following pages—whose generous efforts have made this conference possible. Foremost are the 16 dedicated area chairs and 370 reviewers, who worked together hard and thoughtfully to select this excellent program and provide valuable feedback to the authors. Also as part of the technical program, Joakim Nivre chaired the organization of the CoNLL Shared Task and the resulting short papers; Taku Kudo ably identified ACL 2007 resubmissions (see above); and Hal Daumé III kindly chaired the best paper award committee. Eric Ringger put a great deal of effort into producing this fine proceedings volume, with support from Su Jian, the ACL publications chair. Jan Hajic coordinated the many local arrangements, along with Priscilla Rasmussen, Anna Kotesovcova, Jiri Mirovsky, Pavel Stranak, Zdenek Zabokrtsky, and no doubt others; we are very grateful to them for making everything run smoothly in Prague. Antal van den Bosch, Dan Jurafsky, Eric Gaussier, and Ken Church provided much valuable advice over the past months based on their experience. Finally, let us not forget the hundreds of authors who actually produced the excellent research in this volume, and the invited speakers who graciously traveled a long way to enlighten us.

Enjoy the conference!

Jason Eisner
EMNLP-CoNLL Chair
May 2007

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Conference Program

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Xavier Carreras

15:30–15:45 *Log-Linear Models of Non-Projective Trees, k-best MST Parsing and Tree-Ranking*
Keith Hall, Jiri Havelka and David A. Smith

Saturday, June 30, 2007 (continued)

Session 12b: Machine Translation

14:00–14:25 *Improving Translation Quality by Discarding Most of the Phrasetable*
Howard Johnson, Joel Martin, George Foster and Roland Kuhn

14:25–14:50 *Hierarchical Phrase-Based Translation with Suffix Arrays*
Adam Lopez

14:50–15:15 *An Empirical Study on Computing Consensus Translations from Multiple Machine Translation Systems*
Wolfgang Macherey and Franz J. Och

15:15–15:40 *Learning to Find English to Chinese Transliterations on the Web*
Jian-Cheng Wu and Jason S. Chang

Session 12c: Word Senses

14:00–14:25 *Learning to Merge Word Senses*
Rion Snow, Sushant Prakash, Daniel Jurafsky and Andrew Y. Ng

14:25–14:50 *Improving Word Sense Disambiguation Using Topic Features*
Junfu Cai, Wee Sun Lee and Yee Whye Teh

14:50–15:15 *A Topic Model for Word Sense Disambiguation*
Jordan Boyd-Graber, David Blei and Xiaojin Zhu

15:15–15:40 *Validation and Evaluation of Automatically Acquired Multiword Expressions for Grammar Engineering*
Aline Villavicencio, Valia Kordoni, Yi Zhang, Marco Idiart and Carlos Ramisch

Saturday, June 30, 2007 (continued)

Session 13a: CoNLL Shared Task Session (dependency parsing)

16:15–16:30 *Dependency Parsing and Domain Adaptation with LR Models and Parser Ensembles*
Kenji Sagae and Jun'ichi Tsujii

16:30–16:45 *Frustratingly Hard Domain Adaptation for Dependency Parsing*
Mark Dredze, John Blitzer, Partha Pratim Talukdar, Kuzman Ganchev, João Graca and Fernando Pereira

16:45–17:15 Analysis: Sandra Kübler, Ryan McDonald

17:15–17:30 Discussion

Session 13b: Sentiment

16:15–16:40 *Crystal: Analyzing Predictive Opinions on the Web*
Soo-Min Kim and Eduard Hovy

16:40–17:05 *Extracting Aspect-Evaluation and Aspect-Of Relations in Opinion Mining*
Nozomi Kobayashi, Kentaro Inui and Yuji Matsumoto

17:05–17:30 *Building Lexicon for Sentiment Analysis from Massive Collection of HTML Documents*
Nobuhiro Kaji and Masaru Kitsuregawa

Session 13c: Tagging

16:15–16:40 *Determining Case in Arabic: Learning Complex Linguistic Behavior Requires Complex Linguistic Features*
Nizar Habash, Ryan Gabbard, Owen Rambow, Seth Kulick and Mitch Marcus

16:40–17:05 *Mandarin Part-of-Speech Tagging and Discriminative Reranking*
Zhongqiang Huang, Mary Harper and Wen Wang

17:05–17:30 *Building Domain-Specific Taggers without Annotated (Domain) Data*
John Miller, Manabu Torii and K. Vijay-Shanker

Concluding Session

17:30 Closing Remarks

Additional CoNLL Shared Task Papers (dependency parsing)

Multilingual Dependency Parsing and Domain Adaptation using DeSR
Giuseppe Attardi, Felice Dell'Orletta, Maria Simi, Atanas Chanev and Massimiliano Ciaramita

Hybrid Ways to Improve Domain Independence in an ML Dependency Parser
Eckhard Bick

A Constraint Satisfaction Approach to Dependency Parsing
Sander Canisius and Erik Tjong Kim Sang

A Two-Stage Parser for Multilingual Dependency Parsing
Wenliang Chen, Yujie Zhang and Hitoshi Isahara

Incremental Dependency Parsing Using Online Learning
Richard Johansson and Pierre Nugues

Online Learning for Deterministic Dependency Parsing
Prashanth Reddy Mannem

Covington Variations
Svetoslav Marinov

A Multilingual Dependency Analysis System Using Online Passive-Aggressive Learning
Le-Minh Nguyen, Akira Shimazu, Phuong-Thai Nguyen and Xuan-Hieu Phan

Global Learning of Labeled Dependency Trees
Michael Schiehlen and Kristina Spranger

Pro3Gres Parser in the CoNLL Domain Adaptation Shared Task
Gerold Schneider, Kaarel Kaljurand, Fabio Rinaldi and Tobias Kuhn

Structural Correspondence Learning for Dependency Parsing
Nobuyuki Shimizu and Hiroshi Nakagawa

Adapting the RASP System for the CoNLL07 Domain-Adaptation Task
Rebecca Watson and Ted Briscoe

Multilingual Deterministic Dependency Parsing Framework using Modified Finite Newton Method Support Vector Machines
Yu-Chieh Wu, Jie-Chi Yang and Yue-Shi Lee