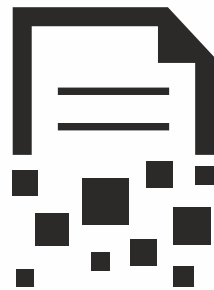


 **ACL 2013**

4 – 9 August | Sofia, Bulgaria

51st
**ANNUAL MEETING OF THE
ASSOCIATION FOR
COMPUTATIONAL LINGUISTICS**



**Proceedings of
the Conference**

VOLUME 2: Short Papers

ACL 2013

**51st Annual Meeting of the
Association for Computational Linguistics**

**Proceedings of the Conference
Volume 2: Short Papers**

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Preface: General Chair

Welcome to the 51st Annual Meeting of the Association for Computational Linguistics in Sofia, Bulgaria! The first ACL meeting was held in Denver in 1963 under the name AMTCL. This makes ACL one of the longest running conferences in computer science. This year we received a record total number of 1286 submissions, which is a testament to the continued and growing importance of computational linguistics and natural language processing.

The success of an ACL conference is made possible by the dedication and hard work of many people. I thank all of them for volunteering their time and energy in service to our community.

Priscilla Rasmussen, the ACL Business Manager, and Graeme Hirst, the treasurer, did most of the groundwork in selecting Sofia as the conference site, went through several iterations of planning and shouldered a significant part of the organizational work for the conference. It was my first exposure to the logistics of organizing a large event and I was surprised at how much expertise and experience is necessary to make ACL a successful meeting.

Thanks to Svetla Koeva and her team for their work on local arrangements, including social activities (Radka Vlahova, Tsvetana Dimitrova, Svetlozara Lesseva), local sponsorship (Stoyan Mihov, Rositsa Dekova), conference handbook (Nikolay Genov, Hristina Kukova), web site (Tinko Tinchev, Emil Stoyanov, Georgi Iliev), local exhibits (Maria Todorova, Ekaterina Tarpomanova), internet, wifi and equipment (Martin Yalamov, Angel Genov, Borislav Rizov) and student volunteer management (Kalina Boncheva). Perhaps most importantly, Svetla was the liaison to the professional conference organizer AIM Group, a relationship that is crucial for the success of the conference. Doing the local arrangements is a fulltime job for an extended period of time. We are lucky that we have people in our community who are willing to provide this service without compensation.

The program co-chairs Pascale Fung and Massimo Poesio selected a strong set of papers for the main conference and invited three great keynote speakers, Harald Baayen, Chantal Prat and Lars Rasmussen. Putting together the program of the top conference in our field is a difficult job and I thank Pascale and Massimo for taking on this important responsibility.

Thanks are also due to the other key members of the ACL organizing committees: Aoife Cahill and Qun Liu (workshop co-chairs); Johan Bos and Keith Hall (tutorial co-chairs); Miriam Butt and Sarmad Hussain (demo co-chairs); Steven Bethard, Preslav Nakov and Feiyu Xu (faculty advisors to the student research workshop); Anik Dey, Eva Vecchi, Sebastian Krause and Ivelina Nikolova (co-chairs of the student research workshop); Leo Wanner (mentoring chair); and Anisava Miltenova, Ivan Derzhanski and Anna Korhonen (publicity co-chairs).

I am particularly indebted to Roberto Navigli, Jing-Shin Chang and Stefano Faralli for producing the proceedings of the conference, a bigger job than usual because of the large number of submissions and the resulting large number of acceptances.

The ACL conference and the ACL organization benefit greatly from the financial support of our sponsors. We thank the platinum level sponsor, Baidu; the three gold level sponsors; the three silver level sponsors; and six bronze level sponsors. Three other sponsors took advantage of more creative options to assist us: Facebook sponsored the Student Volunteers; IBM sponsored the Best Student Paper Award; and SDL sponsored the conference bags. We are grateful for the financial support from these organizations.

Finally, I would like to express my appreciation to the area chairs, workshop organizers, tutorial presenters and reviewers for their participation and contribution.

Of course, the ACL conference is primarily held for the people who attend the conference, including the

authors. I would like to thank all of you for your participation and wish you a productive and enjoyable meeting in Sofia!

ACL 2013 General Chair
Hinrich Schuetze, University of Munich

Preface: Programme Committee Co-Chairs

Welcome to the 2013 Conference of the Association for Computational Linguistics! Our community continues to grow, and this year's conference has set a new record for paper submissions. We received 1286 submissions, which is 12% more than the previous record; we are particularly pleased to see a striking increase in the number of short papers submitted - 624, which is 21.8% higher than the previous record set in 2011.

Another encouraging trend in recent years is the increasing number of aspects of language processing, and forms of language, of interest to our community. In order to reflect this greater diversity, this year's conference has a much larger number of tracks than previous conferences, 26. Consequently, many more area chairs and reviewers were recruited than in the past, thus involving an even greater subset of the community in the selection of the program. We feel this, too, is a very positive development. We thank the area chairs and reviewers for their hard work.

A key innovation introduced this year is the presentation at the conference of sixteen papers accepted by the new ACL journal, Transactions of the Association for Computational Linguistics (TACL). We have otherwise maintained most of the innovations introduced in recent years, including accepting papers accompanied by supplemental materials such as corpora or software.

Another new practice this year is the presence of an industrial keynote speaker in addition to the two traditional keynote speakers. We are delighted to have as invited speakers two scholars as distinguished as Prof. Harald Baayen of Tuebingen and Alberta and Prof. Chantel Prat from the University of Wisconsin. Prof. Baayen will talk about using eye-tracking to study the semantics of compounds, an issue of great interest for work on distributional semantics. Prof. Prat will talk about research studying language in bilinguals using methods from neuroscience. The industrial keynote speaker, Dr. Lars Rasmussen from Facebook, will talk about the new graph search algorithm recently announced by the company. Last, but not least, the recipient of this year's ACL Lifetime Achievement Award will give a plenary lecture during the final day of the conference.

The list of people to thank for their contribution to this year's program is very long. First of all we wish to thank the authors who submitted top quality work to the conference; we would not have such a strong program without them, nor without the hard work of area chairs and reviewers, who enabled us to make often very difficult choices and to provide valuable feedback to the authors. As usual, Rich Gerber and the START team gave us crucial help with an amazing speed. The general conference chair Hinrich Schuetze provided valuable guidance and kept the timetable ticking along. We thank the local arrangements committee headed by Svetla Koeva, who played a key role in finalizing the program. We also thank the publication chairs, Jing-Shin Chang and Roberto Navigli, and their collaborator Stefano Faralli, who together produced this volume; and Priscilla Rasmussen, Drago Radev and Graeme Hirst, who provided enormously useful guidance and support. Finally, we wish to thank previous program chairs, and in particular John Carroll, Stephen Clark, and Jian Su, for their insight on the process.

We hope you will be as pleased as we are with the result and that you'll enjoy the conference in Sofia this Summer.

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Invited Talk

When parsing makes things worse: An eye-tracking study of English compounds

Harald Baayen

Seminar für Sprachwissenschaft, Eberhard Karls University, Tuebingen

Abstract

Compounds differ in the degree to which they are semantically compositional (compare, e.g., "carwash", "handbag", "beefcake" and "humbug"). Since even relatively transparent compounds such as "carwash" may leave the uninitiated reader with uncertainty about the intended meaning (soap for washing cars? a place where you can get your car washed?), an efficient way of retrieving the meaning of a compound is to use the compound's form as an access key for its meaning.

However, in psychology, the view has become popular that at the earliest stage of lexical processing in reading, a morpho-orthographic decomposition into morphemes would necessarily take place. Theorists ascribing to obligatory decomposition appear to have some hash coding scheme in mind, with the constituents providing entry points to a form of table look-up (e.g., Taft & Forster, 1976).

Leaving aside the question of whether such a hash coding scheme would be computationally efficient as well as the question how the putative morpho-orthographic representations would be learned, my presentation focuses on the details of lexical processing as revealed by an eye-tracking study of the reading of English compounds in sentences.

A careful examination of the eye-tracking record with generalized additive modeling (Wood, 2006), combined with computational modeling using naive discrimination learning (Baayen, Milin, Filipovic, Hendrix, & Marelli, 2011) revealed that how far the eye moved into the compound is co-determined by the compound's lexical distributional properties, including the cosine similarity of the compound and its head in document vector space (as measured with latent semantic analysis, Landauer & Dumais, 1997). This indicates that compound processing is initiated already while the eye is fixating on the preceding word, and that even before the eye has landed on the compound, processes discriminating the meaning of the compound from the meaning of its head have already come into play.

Once the eye lands on the compound, two very different reading signatures emerge, which critically depend on the letter trigrams spanning the morpheme boundary (e.g., "ndb" and "dba" in "handbag"). From a discrimination learning perspective, these boundary trigrams provide the crucial (and only) orthographic cues for the compound's (idiosyncratic) meaning. If the boundary trigrams are sufficiently strongly associated with the compound's meaning, and if the eye lands early enough in the word, a single fixation suffices. Within 240 ms (of which 80 ms involve planning the next saccade) the compound's meaning is discriminated well enough to proceed to the next word.

However, when the boundary trigrams are only weakly associated with the compound's meaning, multiple fixations become necessary. In this case, without the availability of the critical orthographic cues, the eye-tracking record bears witness to the cognitive system engaging not only bottom-up processes from form to meaning, but also top-down guessing processes that are informed by the a-priori probability of the head and the cosine similarities of the compound and its constituents in semantic vector space.

These results challenge theories positing obligatory decomposition with hash coding, as hash coding predicts insensitivity to semantic transparency, contrary to fact. Our results also challenge theories positing blind look-up based on compounds' orthographic forms. Although this might be computationally efficient, the eye can't help seeing parts of the whole. In summary, reality is much more complex, with deep pre-arrival parafoveal processing followed by either efficient discrimination driven by the boundary

trigrams (within 140 ms), or by an inefficient decompositional process (requiring an additional 200 ms) that seeks to make sense of the conjunction of head and modifier.

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Invited Talk

The Natural Language Interface of Graph Search

Lars Rasmussen

Facebook Inc

Abstract

The backbone of the Facebook social network service is an enormous graph representing hundreds of types of nodes and thousands of types of edges. Among these nodes are over 1 billion users and 250 billion photos. The edges connecting these nodes have exceeded 1 trillion and continue to grow at an incredible rate. Retrieving information from such a graph has been a formidable and exciting task. Now it is possible for you to find, in an aggregated manner, restaurants in a city that your friends have visited, or photos of people who have attended college with you, and explore many other nuanced connections between the nodes and edges in our graph given that such information is visible to you.

Graph Search Beta, launched early this year, is a personalized semantic search engine that allows users to express their intent in natural language. It seeks answers through the traversal of relevant graph edges and ranks results by various signals extracted from our data. You can find “tv shows liked by people who study linguistics“ by issuing this query verbatim and, for the entertainment value, compare the results with “tv shows liked by people who study computer science“. Our system is built to be robust to many varied inputs, such as grammatically incorrect user queries or traditional keyword searches. Our query suggestions are always constructed in natural language, expressing the precise intention interpreted by our system. This means users would know in advance whether the system has correctly understood their intent before selecting any suggestion. The system also assists users with auto-completions, demonstrating what kinds of queries it can understand.

The development of the natural language interface encountered an array of challenging problems. The grammar structure needed to incorporate semantic information in order to translate an unstructured query into a structured semantic function, and also use syntactic information to return grammatically meaningful suggestions. The system required not only the recognition of entities in a query, but also the resolution of entities to database entries based on proximity of the entity and user nodes. Semantic parsing aimed to rank potential semantics including those that may match the immediate purpose of the query along with other refinements of the original intent. The ambiguous nature of natural language led us to consider how to interpret certain queries in the most sensible way. The need for speed demanded state-of-the-art parsing algorithms tailored for our system. In this talk, I will introduce the audience to Graph Search Beta, share our experience in developing the technical components of the natural language interface, and bring up topics that may be of interesting research value to the NLP community.

Invited Talk

Individual Differences in Language and Executive Processes: How the Brain Keeps Track of Variables

Chantel S. Prat

University of Washington

Abstract

Language comprehension is a complex cognitive process which requires tracking and integrating multiple variables. Thus, it is not surprising that language abilities (e.g., reading comprehension) vary widely even in the college population, and that language and general cognitive abilities (e.g., working memory capacity) co-vary. Although it has been widely accepted that improvements in general cognitive abilities enable (or give rise to) increased linguistic skills, the fact that individuals who develop bilingually outperform monolinguals in tests of executive functioning provides evidence of a situation in which a particular language experience gives rise to improvements in general cognitive processes. In this talk, I will describe two converging lines of research investigating individual differences in working memory capacity and reading ability in monolinguals and improved executive functioning in bilinguals. Results from these investigations suggest that the functioning of the fronto-striatal loops can explain the relation between language and non-linguistic executive functioning in both populations. I then discuss evidence suggesting that this system may function to track and route “variables” into prefrontal control structures.

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Conference Program

Monday August 5, 2013

(7:30 - 17:00) Registration

(9:00 - 9:30) Opening session

(9:30) Invited Talk 1: Harald Baayen

(10:30) Coffee Break

Oral Presentations

(12:15) Lunch break

(16:15) Coffee Break

(16:45 - 18:05) SP 4a

- 16:45 *Translating Dialectal Arabic to English*
Hassan Sajjad, Kareem Darwish and Yonatan Belinkov
- 17:05 *Exact Maximum Inference for the Fertility Hidden Markov Model*
Chris Quirk
- 17:25 *A Tale about PRO and Monsters*
Preslav Nakov, Francisco Guzmán and Stephan Vogel
- 17:45 *Supervised Model Learning with Feature Grouping based on a Discrete Constraint*
Jun Suzuki and Masaaki Nagata

Monday August 5, 2013 (continued)

(16:45 - 18:05) SP 4b

- 16:45 *Exploiting Topic based Twitter Sentiment for Stock Prediction*
Jianfeng Si, Arjun Mukherjee, Bing Liu, Qing Li, Huayi Li and Xiaotie Deng
- 17:05 *Learning Entity Representation for Entity Disambiguation*
Zhengyan He, Shujie Liu, Mu Li, Ming Zhou, Longkai Zhang and Houfeng Wang
- 17:25 *Natural Language Models for Predicting Programming Comments*
Dana Movshovitz-Attias and William W. Cohen
- 17:45 *Paraphrasing Adaptation for Web Search Ranking*
Chenguang Wang, Nan Duan, Ming Zhou and Ming Zhang

(16:45 - 18:05) SP 4c

- 16:45 *Semantic Parsing as Machine Translation*
Jacob Andreas, Andreas Vlachos and Stephen Clark
- 17:05 *A relatedness benchmark to test the role of determiners in compositional distributional semantics*
Raffaella Bernardi, Georgiana Dinu, Marco Marelli and Marco Baroni
- 17:25 *An Empirical Study on Uncertainty Identification in Social Media Context*
Zhongyu Wei, Junwen Chen, Wei Gao, Binyang Li, Lanjun Zhou, Yulan He and Kam-Fai Wong
- 17:45 *PARMA: A Predicate Argument Aligner*
Travis Wolfe, Benjamin Van Durme, Mark Dredze, Nicholas Andrews, Charley Beller, Chris Callison-Burch, Jay DeYoung, Justin Snyder, Jonathan Weese, Tan Xu and Xuchen Yao

Monday August 5, 2013 (continued)

(16:45 - 18:05) SP 4d

- 16:45 *Aggregated Word Pair Features for Implicit Discourse Relation Disambiguation*
Or Biran and Kathleen McKeown
- 17:05 *Implicatures and Nested Beliefs in Approximate Decentralized-POMDPs*
Adam Vogel, Christopher Potts and Dan Jurafsky
- 17:25 *Domain-Specific Coreference Resolution with Lexicalized Features*
Nathan Gilbert and Ellen Riloff
- 17:45 *Learning to Order Natural Language Texts*
Jiwei Tan, Xiaojun Wan and Jianguo Xiao

(16:45 - 18:05) SP 4e

- 16:45 *Universal Dependency Annotation for Multilingual Parsing*
Ryan McDonald, Joakim Nivre, Yvonne Quirnbach-Brundage, Yoav Goldberg, Dipanjan Das, Kuzman Ganchev, Keith Hall, Slav Petrov, Hao Zhang, Oscar Täckström, Claudia Bedini, Núria Bertomeu Castelló and Jungmee Lee
- 17:05 *An Empirical Examination of Challenges in Chinese Parsing*
Jonathan K. Kummerfeld, Daniel Tse, James R. Curran and Dan Klein
- 17:25 *Joint Inference for Heterogeneous Dependency Parsing*
Guangyou Zhou and Jun Zhao
- 17:45 *Easy-First POS Tagging and Dependency Parsing with Beam Search*
Ji Ma, Jingbo Zhu, Tong Xiao and Nan Yang

Monday August 5, 2013 (continued)

(18:30 - 19:45) Poster Session A

SP - Cognitive Modelling and Psycholinguistics

Arguments and Modifiers from the Learner's Perspective

Leon Bergen, Edward Gibson and Timothy J. O'Donnell

SP - Dialogue and Interactive Systems

Benefactive/Malefactive Event and Writer Attitude Annotation

Lingjia Deng, Yoonjung Choi and Janyce Wiebe

SP- Discourse, Coreference and Pragmatics

GuiTAR-based Pronominal Anaphora Resolution in Bengali

Apurbalal Senapati and Utpal Garain

SP - Evaluation Methods

A Decade of Automatic Content Evaluation of News Summaries: Reassessing the State of the Art

Peter A. Rankel, John M. Conroy, Hoa Trang Dang and Ani Nenkova

On the Predictability of Human Assessment: when Matrix Completion Meets NLP Evaluation

Guillaume Wisniewski

Automated Pyramid Scoring of Summaries using Distributional Semantics

Rebecca J. Passonneau, Emily Chen, Weiwei Guo and Dolores Perin

Monday August 5, 2013 (continued)

SP - Information Retrieval

Are Semantically Coherent Topic Models Useful for Ad Hoc Information Retrieval?

Romain Deveaud, Eric SanJuan and Patrice Bellot

Post-Retrieval Clustering Using Third-Order Similarity Measures

Jose G. Moreno, Gaël Dias and Guillaume Cleuziou

Automatic Coupling of Answer Extraction and Information Retrieval

Xuchen Yao, Benjamin Van Durme and Peter Clark

SP - Word Segmentation

An improved MDL-based compression algorithm for unsupervised word segmentation

Ruey-Cheng Chen

Co-regularizing character-based and word-based models for semi-supervised Chinese word segmentation

Xiaodong Zeng, Derek F. Wong, Lidia S. Chao and Isabel Trancoso

Improving Chinese Word Segmentation on Micro-blog Using Rich Punctuations

Longkai Zhang, Li Li, Zhengyan He, Houfeng Wang and Ni Sun

Accurate Word Segmentation using Transliteration and Language Model Projection

Masato Hagiwara and Satoshi Sekine

SP - Spoken Language Processing

Broadcast News Story Segmentation Using Manifold Learning on Latent Topic Distributions

Xiaoming Lu, Lei Xie, Cheung-Chi Leung, Bin Ma and Haizhou Li

Is word-to-phone mapping better than phone-phone mapping for handling English words?

Naresh Kumar Elluru, Anandaswarup Vadapalli, Raghavendra Elluru, Hema Murthy and Kishore Prahallad

Monday August 5, 2013 (continued)

SP - Multilinguality

Enriching Entity Translation Discovery using Selective Temporality

Gae-won You, Young-rok Cha, Jinhan Kim and Seung-won Hwang

Combination of Recurrent Neural Networks and Factored Language Models for Code-Switching Language Modeling

Heike Adel, Ngoc Thang Vu and Tanja Schultz

Latent Semantic Matching: Application to Cross-language Text Categorization without Alignment Information

Tsutomu Hirao, Tomoharu Iwata and Masaaki Nagata

SP - NLP Applications

TopicSpam: a Topic-Model based approach for spam detection

Jiwei Li, Claire Cardie and Sujian Li

Semantic Neighborhoods as Hypergraphs

Chris Quirk and Pallavi Choudhury

Unsupervised joke generation from big data

Saša Petrović and David Matthews

Modeling of term-distance and term-occurrence information for improving n-gram language model performance

Tze Yuang Chong, Rafael E. Banchs, Eng Siong Chng and Haizhou Li

Discriminative Approach to Fill-in-the-Blank Quiz Generation for Language Learners

Keisuke Sakaguchi, Yuki Arase and Mamoru Komachi

Monday August 5, 2013 (continued)

SP - NLP and Creativity

"Let Everything Turn Well in Your Wife": Generation of Adult Humor Using Lexical Constraints

Alessandro Valitutti, Hannu Toivonen, Antoine Doucet and Jukka M. Toivanen

Random Walk Factoid Annotation for Collective Discourse

Ben King, Rahul Jha, Dragomir Radev and Robert Mankoff

SP - NLP for the Languages of Central and Eastern Europe and the Balkans

Identifying English and Hungarian Light Verb Constructions: A Contrastive Approach

Veronika Vincze, István Nagy T. and Richárd Farkas

English-to-Russian MT evaluation campaign

Pavel Braslavski, Alexander Beloborodov, Maxim Khalilov and Serge Sharoff

SP - Language Resources

IndoNet: A Multilingual Lexical Knowledge Network for Indian Languages

Brijesh Bhatt, Lahari Poddar and Pushpak Bhattacharyya

Building Japanese Textual Entailment Specialized Data Sets for Inference of Basic Sentence Relations

Kimi Kaneko, Yusuke Miyao and Daisuke Bekki

Building Comparable Corpora Based on Bilingual LDA Model

Zede Zhu, Miao Li, Lei Chen and Zhenxin Yang

Monday August 5, 2013 (continued)

SP - Lexical Semantics and Ontologies

Using Lexical Expansion to Learn Inference Rules from Sparse Data

Oren Melamud, Ido Dagan, Jacob Goldberger and Idan Szpektor

Mining Equivalent Relations from Linked Data

Ziqi Zhang, Anna Lisa Gentile, Isabelle Augenstein, Eva Blomqvist and Fabio Ciravegna

SP - Low Resource Language Processing

Context-Dependent Multilingual Lexical Lookup for Under-Resourced Languages

Lian Tze Lim, Lay-Ki Soon, Tek Yong Lim, Enya Kong Tang and Bali Ranaivo-Malançon

Sorani Kurdish versus Kurmanji Kurdish: An Empirical Comparison

Kyumars Sheykh Esmaili and Shahin Salavati

Enhanced and Portable Dependency Projection Algorithms Using Interlinear Glossed Text

Ryan Georgi, Fei Xia and William D. Lewis

Cross-lingual Projections between Languages from Different Families

Mo Yu, Tiejun Zhao, Yalong Bai, Hao Tian and Dianhai Yu

Using Context Vectors in Improving a Machine Translation System with Bridge Language

Samira Tofighi Zahabi, Somayeh Bakhshaei and Shahram Khadivi

SP - Machine Translation: Methods, Applications and Evaluations

Task Alternation in Parallel Sentence Retrieval for Twitter Translation

Felix Hieber, Laura Jehl and Stefan Riezler

Sign Language Lexical Recognition With Propositional Dynamic Logic

Arturo Curiel and Christophe Collet

Stacking for Statistical Machine Translation

Majid Razmara and Anoop Sarkar

Monday August 5, 2013 (continued)

Bilingual Data Cleaning for SMT using Graph-based Random Walk

Lei Cui, Dongdong Zhang, Shujie Liu, Mu Li and Ming Zhou

Automatically Predicting Sentence Translation Difficulty

Abhijit Mishra, Pushpak Bhattacharyya and Michael Carl

Learning to Prune: Context-Sensitive Pruning for Syntactic MT

Wenduan Xu, Yue Zhang, Philip Williams and Philipp Koehn

A Novel Graph-based Compact Representation of Word Alignment

Qun Liu, Zhaopeng Tu and Shouxun Lin

Stem Translation with Affix-Based Rule Selection for Agglutinative Languages

Zhiyang Wang, Yajuan Lü, Meng Sun and Qun Liu

A Novel Translation Framework Based on Rhetorical Structure Theory

Mei Tu, Yu Zhou and Chengqing Zong

Improving machine translation by training against an automatic semantic frame based evaluation metric

Chi-kiu Lo, Karteek Addanki, Markus Saers and Dekai Wu

(19:45 - 21:00) Poster Session B

SP - Machine Translation: Statistical Models

Bilingual Lexical Cohesion Trigger Model for Document-Level Machine Translation

Guosheng Ben, Deyi Xiong, Zhiyang Teng, Yajuan Lü and Qun Liu

Generalized Reordering Rules for Improved SMT

Fei Huang and Cezar Pendus

A Tightly-coupled Unsupervised Clustering and Bilingual Alignment Model for Transliteration

Tingting Li, Tiejun Zhao, Andrew Finch and Chunyue Zhang

Can Markov Models Over Minimal Translation Units Help Phrase-Based SMT?

Nadir Durrani, Alexander Fraser, Helmut Schmid, Hieu Hoang and Philipp Koehn

Monday August 5, 2013 (continued)

Learning Non-linear Features for Machine Translation Using Gradient Boosting Machines

Kristina Toutanova and Byung-Gyu Ahn

Language Independent Connectivity Strength Features for Phrase Pivot Statistical Machine Translation

Ahmed El Kholly, Nizar Habash, Gregor Leusch, Evgeny Matusov and Hassan Sawaf

Semantic Roles for String to Tree Machine Translation

Marzieh Bazrafshan and Daniel Gildea

SP -Question Answering

Minimum Bayes Risk based Answer Re-ranking for Question Answering

Nan Duan

Question Classification Transfer

Anne-Laure Ligozat

Latent Semantic Tensor Indexing for Community-based Question Answering

Xipeng Qiu, Le Tian and Xuanjing Huang

SP - Semantics

Measuring semantic content in distributional vectors

Aur lie Herbelot and Mohan Ganesalingam

Modeling Human Inference Process for Textual Entailment Recognition

Hen-Hsen Huang, Kai-Chun Chang and Hsin-Hsi Chen

Recognizing Partial Textual Entailment

Omer Levy, Torsten Zesch, Ido Dagan and Iryna Gurevych

Sentence Level Dialect Identification in Arabic

Heba Elfardy and Mona Diab

Leveraging Domain-Independent Information in Semantic Parsing

Dan Goldwasser and Dan Roth

Monday August 5, 2013 (continued)

A Structured Distributional Semantic Model for Event Co-reference

Kartik Goyal, Sujay Kumar Jauhar, Huiying Li, Mrinmaya Sachan, Shashank Srivastava and Eduard Hovy

SP - Sentiment Analysis, Opinion Mining and Text Classification

Text Classification from Positive and Unlabeled Data using Misclassified Data Correction

Fumiyo Fukumoto, Yoshimi Suzuki and Suguru Matsuyoshi

Character-to-Character Sentiment Analysis in Shakespeare's Plays

Eric T. Nalisnick and Henry S. Baird

A Novel Classifier Based on Quantum Computation

Ding Liu, Xiaofang Yang and Minghu Jiang

Re-embedding words

Igor Labutov and Hod Lipson

LABR: A Large Scale Arabic Book Reviews Dataset

Mohamed Aly and Amir Atiya

Generating Recommendation Dialogs by Extracting Information from User Reviews

Kevin Reschke, Adam Vogel and Dan Jurafsky

Exploring Sentiment in Social Media: Bootstrapping Subjectivity Clues from Multilingual Twitter Streams

Svitlana Volkova, Theresa Wilson and David Yarowsky

Joint Modeling of News Reader's and Comment Writer's Emotions

Huanhuan Liu, Shoushan Li, Guodong Zhou, Chu-ren Huang and Peifeng Li

An annotated corpus of quoted opinions in news articles

Tim O'Keefe, James R. Curran, Peter Ashwell and Irena Koprinska

Dual Training and Dual Prediction for Polarity Classification

Rui Xia, Tao Wang, Xuelei Hu, Shoushan Li and Chengqing Zong

Co-Regression for Cross-Language Review Rating Prediction

Xiaojun Wan

Monday August 5, 2013 (continued)

SP - Statistical and Machine Learning Methods in NLP

Extracting Definitions and Hypernym Relations relying on Syntactic Dependencies and Support Vector Machines

Guido Boella and Luigi Di Caro

Neighbors Help: Bilingual Unsupervised WSD Using Context

Sudha Bhingardive, Samiulla Shaikh and Pushpak Bhattacharyya

Reducing Annotation Effort for Quality Estimation via Active Learning

Daniel Beck, Lucia Specia and Trevor Cohn

Reranking with Linguistic and Semantic Features for Arabic Optical Character Recognition

Nadi Tomeh, Nizar Habash, Ryan Roth, Noura Farra, Pradeep Dasigi and Mona Diab

SP - Summarization and Generation

Evolutionary Hierarchical Dirichlet Process for Timeline Summarization

Jiwei Li and Sujian Li

Using Integer Linear Programming in Concept-to-Text Generation to Produce More Compact Texts

Gerasimos Lampouras and Ion Androutsopoulos

Sequential Summarization: A New Application for Timely Updated Twitter Trending Topics

Dehong Gao, Wenjie Li and Renxian Zhang

A System for Summarizing Scientific Topics Starting from Keywords

Rahul Jha, Amjad Abu-Jbara and Dragomir Radev

Monday August 5, 2013 (continued)

SP - Syntax and Parsing

A Unified Morpho-Syntactic Scheme of Stanford Dependencies

Reut Tsarfaty

Dependency Parser Adaptation with Subtrees from Auto-Parsed Target Domain Data

Xuezhe Ma and Fei Xia

Iterative Transformation of Annotation Guidelines for Constituency Parsing

Xiang Li, Wenbin Jiang, Yajuan Lü and Qun Liu

Nonparametric Bayesian Inference and Efficient Parsing for Tree-adjoining Grammars

Elif Yamangil and Stuart M. Shieber

Using CCG categories to improve Hindi dependency parsing

Bharat Ram Ambati, Tejaswini Deoskar and Mark Steedman

The Effect of Higher-Order Dependency Features in Discriminative Phrase-Structure Parsing

Greg Coppola and Mark Steedman

Turning on the Turbo: Fast Third-Order Non-Projective Turbo Parsers

Andre Martins, Miguel Almeida and Noah A. Smith

A Lattice-based Framework for Joint Chinese Word Segmentation, POS Tagging and Parsing

Zhiguo Wang, Chengqing Zong and Nianwen Xue

Efficient Implementation of Beam-Search Incremental Parsers

Yoav Goldberg, Kai Zhao and Liang Huang

Monday August 5, 2013 (continued)

SP - Tagging and Chunking

Simpler unsupervised POS tagging with bilingual projections

Long Duong, Paul Cook, Steven Bird and Pavel Pecina

Part-of-speech tagging with antagonistic adversaries

Anders Søgaard

SP - Text Mining and Information Extraction

Temporal Signals Help Label Temporal Relations

Leon Derczynski and Robert Gaizauskas

Diverse Keyword Extraction from Conversations

Maryam Habibi and Andrei Popescu-Belis

Understanding Tables in Context Using Standard NLP Toolkits

Vidhya Govindaraju, Ce Zhang and Christopher Ré

Filling Knowledge Base Gaps for Distant Supervision of Relation Extraction

Wei Xu, Raphael Hoffmann, Le Zhao and Ralph Grishman

Joint Apposition Extraction with Syntactic and Semantic Constraints

Will Radford and James R. Curran

Tuesday August 6, 2013

(7:30 - 17:00) Registration

(9:00) Industrial Lecture: Lars Rasmussen (Facebook)

(10:00) Best Paper Award

(10:30) Coffee Break

Oral Presentations

(12:15) Lunch break

(16:15) Coffee Break

(16:45 - 18:05) SP 8a

- 16:45 *Adaptation Data Selection using Neural Language Models: Experiments in Machine Translation*
Kevin Duh, Graham Neubig, Katsuhito Sudoh and Hajime Tsukada
- 17:05 *Mapping Source to Target Strings without Alignment by Analogical Learning: A Case Study with Transliteration*
Phillippe Langlais
- 17:25 *Scalable Modified Kneser-Ney Language Model Estimation*
Kenneth Heafield, Ivan Pouzyrevsky, Jonathan H. Clark and Philipp Koehn
- 17:45 *Incremental Topic-Based Translation Model Adaptation for Conversational Spoken Language Translation*
Sanjika Hewavitharana, Dennis Mehay, Sankaranarayanan Ananthkrishnan and Prem Natarajan

Tuesday August 6, 2013 (continued)

(16:45 - 18:05) SP 8b

- 16:45 *A Lightweight and High Performance Monolingual Word Aligner*
Xuchen Yao, Benjamin Van Durme, Chris Callison-Burch and Peter Clark
- 17:05 *A Learner Corpus-based Approach to Verb Suggestion for ESL*
Yu Sawai, Mamoru Komachi and Yuji Matsumoto
- 17:25 *Learning Semantic Textual Similarity with Structural Representations*
Aliaksei Severyn, Massimo Nicosia and Alessandro Moschitti
- 17:45 *Typesetting for Improved Readability using Lexical and Syntactic Information*
Ahmed Salama, Kemal Oflazer and Susan Hagan

(16:45 - 18:05) SP 8c

- 16:45 *Annotation of regular polysemy and underspecification*
Héctor Martínez Alonso, Bolette Sandford Pedersen and Núria Bel
- 17:05 *Derivational Smoothing for Syntactic Distributional Semantics*
Sebastian Padó, Jan Šnajder and Britta Zeller
- 17:25 *Diathesis alternation approximation for verb clustering*
Lin Sun, Diana McCarthy and Anna Korhonen
- 17:45 *Outsourcing FrameNet to the Crowd*
Marco Fossati, Claudio Giuliano and Sara Tonelli

Tuesday August 6, 2013 (continued)

(16:45 - 18:05) SP 8d

- 16:45 *Smatch: an Evaluation Metric for Semantic Feature Structures*
Shu Cai and Kevin Knight
- 17:05 *Variable Bit Quantisation for LSH*
Sean Moran, Victor Lavrenko and Miles Osborne
- 17:25 *Context Vector Disambiguation for Bilingual Lexicon Extraction from Comparable Corpora*
Dhouha Bouamor, Nasredine Semmar and Pierre Zweigenbaum
- 17:45 *The Effects of Lexical Resource Quality on Preference Violation Detection*
Jesse Dunietz, Lori Levin and Jaime Carbonell

(18:30) Banquet

Wednesday August 7, 2013

(9:30) Invited Talk 3: Chantal Prat

(10:30) Coffee Break

Oral Presentations

(12:15) Lunch break

Wednesday August 7, 2013 (continued)

(13:30) ACL Business Meeting

(15:00 -16:45) SP 10d

15:00 *Exploiting Qualitative Information from Automatic Word Alignment for Cross-lingual NLP Tasks*

José G.C. de Souza, Miquel Esplà-Gomis, Marco Turchi and Matteo Negri

15:35 *An Information Theoretic Approach to Bilingual Word Clustering*

Manaal Faruqui and Chris Dyer

15:55 *Building and Evaluating a Distributional Memory for Croatian*

Jan Šnajder, Sebastian Padó and Željko Agić

16:15 *Generalizing Image Captions for Image-Text Parallel Corpus*

Polina Kuznetsova, Vicente Ordonez, Alexander Berg, Tamara Berg and Yejin Choi

(16:15) Coffee Break

(16:45 - 18:05) SP 11a

16:45 *Recognizing Identical Events with Graph Kernels*

Goran Glavaš and Jan Šnajder

17:05 *Automatic Term Ambiguity Detection*

Tyler Baldwin, Yunyao Li, Bogdan Alexe and Ioana R. Stanoi

17:25 *Towards Accurate Distant Supervision for Relational Facts Extraction*

Xingxing Zhang, Jianwen Zhang, Junyu Zeng, Jun Yan, Zheng Chen and Zhifang Sui

17:45 *Extra-Linguistic Constraints on Stance Recognition in Ideological Debates*

Kazi Saidul Hasan and Vincent Ng

Wednesday August 7, 2013 (continued)

(16:45 - 18:05) SP 11b

- 16:45 *Are School-of-thought Words Characterizable?*
Xiaorui Jiang, Xiaoping Sun and Hai Zhuge
- 17:05 *Identifying Opinion Subgroups in Arabic Online Discussions*
Amjad Abu-Jbara, Ben King, Mona Diab and Dragomir Radev
- 17:25 *Extracting Events with Informal Temporal References in Personal Histories in Online Communities*
Miaomiao Wen, Zeyu Zheng, Hyeju Jang, Guang Xiang and Carolyn Penstein Rosé
- 17:45 *Multimodal DBN for Predicting High-Quality Answers in cQA portals*
Haifeng Hu, Bingquan Liu, Baoxun Wang, Ming Liu and Xiaolong Wang

(16:45 - 18:05) SP 11c

- 16:45 *Bi-directional Inter-dependencies of Subjective Expressions and Targets and their Value for a Joint Model*
Roman Klinger and Philipp Cimiano
- 17:05 *Identifying Sentiment Words Using an Optimization-based Model without Seed Words*
Hongliang Yu, Zhi-Hong Deng and Shiyinxue Li
- 17:25 *Detecting Turnarounds in Sentiment Analysis: Thwarting*
Ankit Ramteke, Akshat Malu, Pushpak Bhattacharyya and J. Saketha Nath
- 17:45 *Explicit and Implicit Syntactic Features for Text Classification*
Matt Post and Shane Bergsma

Wednesday August 7, 2013 (continued)

(16:45 - 18:05) SP 11d

- 16:45 *Does Korean defeat phonotactic word segmentation?*
Robert Daland and Kie Zuraw
- 17:05 *Word surprisal predicts N400 amplitude during reading*
Stefan L. Frank, Leun J. Otten, Giulia Galli and Gabriella Vigliocco
- 17:25 *Computerized Analysis of a Verbal Fluency Test*
James O. Ryan, Serguei Pakhomov, Susan Marino, Charles Bernick and Sarah Banks
- 17:45 *A New Set of Norms for Semantic Relatedness Measures*
Sean Szumlanski, Fernando Gomez and Valerie K. Sims

(18:30) Lifetime Achievement Award Session

(19:15) Closing Session

(19:30) End