

COLING 2012

**24th International Conference on
Computational Linguistics**

**Proceedings of COLING 2012:
Posters**

Program chairs:
Martin Kay and Christian Boitet

**8-15 December 2012
Mumbai, India**

Diamond sponsors

Tata Consultancy Services
Linguistic Data Consortium for Indian Languages (LDC-IL)

Gold Sponsors

Microsoft Research
Beijing Baidu Netcon Science Technology Co. Ltd.

Silver sponsors

IBM, India Private Limited
Crimson Interactive Pvt. Ltd.
Yahoo
Easy Transcription & Software Pvt. Ltd.

Proceedings of COLING 2012: Posters
Martin Kay and Christian Boitet (eds.)
Preprint edition

Published by The COLING 2012 Organizing Committee
Indian Institute of Technology Bombay,
Powai,
Mumbai-400076
India
Phone: 91-22-25764729
Fax: 91-22-2572 0022
Email: pb@cse.iitb.ac.in

This volume © 2012 The COLING 2012 Organizing Committee.
Licensed under the *Creative Commons Attribution-Noncommercial-Share Alike 3.0 Nonported* license.
<http://creativecommons.org/licenses/by-nc-sa/3.0/>
Some rights reserved.

Contributed content copyright the contributing authors.
Used with permission.

Also available online in the ACL Anthology at <http://aclweb.org>

Table of Contents

<i>K-Best Spanning Tree Dependency Parsing With Verb Valency Lexicon Reranking</i>	
Zeljko Agic	1
<i>A Best-First Anagram Hashing Filter for Approximate String Matching with Generalized Edit Distance</i>	
Malin Ahlberg and Gerlof Bouma	13
<i>Automatic Bilingual Phrase Extraction from Comparable Corpora</i>	
Ahmet Aker, Yang Feng and Robert Gaizauskas	23
<i>A Formalized Reference Grammar for UNL-Based Machine Translation between English and Arabic</i>	
Sameh Alansary	33
<i>Mapping Arabic Wikipedia into the Named Entities Taxonomy</i>	
Fahd Alotaibi and Mark Lee	43
<i>Probabilistic Refinement Algorithms for the Generation of Referring Expressions</i>	
Romina Altamirano, Carlos Areces and Luciana Benotti	53
<i>Measuring the Adequacy of Cross-Lingual Paraphrases in a Machine Translation Setting</i>	
Marianna Apidianaki	63
<i>Cross-Lingual Sentiment Analysis for Indian Languages using Linked WordNets</i>	
Balamurali A.R., Aditya Joshi and Pushpak Bhattacharyya	73
<i>The Creation of Large-Scale Annotated Corpora of Minority Languages using UniParser and the EANC platform</i>	
Timofey Arkhangeskiy, Oleg Belyaev and Arseniy Vydrin	83
<i>Collocation Extraction using Parallel Corpus</i>	
Kavosh Asadi Atui, Heshaam Faili and Kaveh Assadi Atuie	93
<i>Improved Spelling Error Detection and Correction for Arabic</i>	
Mohammed Attia, Pavel Pecina, Younes Samih, Khaled Shaalan and Josef van Genabith ..	
103	
<i>Heloise — A Reengineering of Ariane-G5 SLLPs for Application to π-languages</i>	
Vincent Berment and Christian Boitet	113
<i>Machine Translation for Language Preservation</i>	
Steven Bird and David Chiang	125
<i>Comparing Non-projective Strategies for Labeled Graph-Based Dependency Parsing</i>	
Anders Björkelund and Jonas Kuhn	135
<i>Phrase Structures and Dependencies for End-to-End Coreference Resolution</i>	
Anders Björkelund and Jonas Kuhn	145
<i>The Language of Power and its Cultural Influence</i>	
David Bracewell and Marc Tomlinson	155

<i>Learning Opinionated Patterns for Contextual Opinion Detection</i>	165
Caroline Brun	
<i>Does Similarity Matter? The Case of Answer Extraction from Technical Discussion Forums</i>	
Rose Catherine, Amit Singh, Rashmi Gangadharai, Dinesh Raghu and Karthik Visweswariah 175	
<i>Chinese Noun Phrase Coreference Resolution: Insights into the State of the Art</i>	
Chen Chen and Vincent Ng	185
<i>Linguistic and Statistical Traits Characterising Plagiarism</i>	
Miranda Chong and Lucia Specia.....	195
<i>Impact of Less Skewed Distributions on Efficiency and Effectiveness of Biomedical Relation Extraction</i>	
Md. Faisal Mahbub Chowdhury and Alberto Lavelli	205
<i>Lattice Rescoring for Speech Recognition using Large Scale Distributed Language Models</i>	
Euisok Chung, Hyung-Bae Jeon, Jeon-Gue Park and Yun-Keun Lee	217
<i>Morphological Analyzer for Affix Stacking Languages: A Case Study of Marathi</i>	
Raj Dabre, Archana Amberkar and Pushpak Bhattacharyya.....	225
<i>Modelling the Organization and Processing of Bangla Polymorphemic Words in the Mental Lexicon: A Computational Approach</i>	
Tirthankar Dasgupta, Manjira Sinha and Anupam Basu	235
<i>Coreference Clustering using Column Generation</i>	
Jan De Belder and Marie-Francine Moens.....	245
<i>Metric Learning for Graph-Based Domain Adaptation</i>	
Paramveer Dhillon, Partha Talukdar and Koby Crammer.....	255
<i>Automatic Hashtag Recommendation for Microblogs using Topic-Specific Translation Model</i>	
Zhuoye Ding, Qi Zhang and Xuanjing Huang	265
<i>Unsupervised Feature-Rich Clustering</i>	
Vladimir Eidelman	275
<i>Token Level Identification of Linguistic Code Switching</i>	
Heba Elfandy and Mona Diab	287
<i>Parenthetical Classification for Information Extraction</i>	
Ismail El Maarouf and Jeanne Villaneau	297
<i>A Dictionary-Based Approach to Identifying Aspects Implied by Adjectives for Opinion Mining</i>	
Geli Fei, Bing Liu, Meichun Hsu, Malu Castellanos and Riddhiman Ghosh	309
<i>Dealing with Input Noise in Statistical Machine Translation</i>	
Lluís Formiga and José A. R. Fonollosa.....	319
<i>A Comparison of Knowledge-based Algorithms for Graded Word Sense Assignment</i>	
Annemarie Friedrich, Nikos Engonomopoulos, Stefan Thater and Manfred Pinkal.....	329

<i>Leveraging Statistical Transliteration for Dictionary-Based English-Bengali CLIR of OCR'd Text</i>	339
Utpal Garain, Arjun Das, David Doermann and Douglas Oard	
<i>RU-EVAL-2012: Evaluating Dependency Parsers for Russian</i>	349
Anastasia Gareyshina, Maxim Ionov, Olga Lyashevskaya, Dmitry Privoznov, Elena Sokolova and Svetlana Toldova.....	
<i>Assessing Sentiment Strength in Words Prior Polarities</i>	361
Lorenzo Gatti and Marco Guerini	
<i>Improving Dependency Parsing with Interlinear Glossed Text and Syntactic Projection</i>	371
Ryan Georgi, Fei Xia and William Lewis.....	
<i>Diachronic Variation in Grammatical Relations</i>	381
Aaron Gerow and Khurshid Ahmad	
<i>Relation Classification using Entity Sequence Kernels</i>	391
Debanjan Ghosh and Smaranda Muresan.....	
<i>Translating Questions to SQL Queries with Generative Parsers Discriminatively Reranked</i>	401
Alessandra Giordani and Alessandro Moschitti	
<i>Classifier-Based Tense Model for SMT</i>	411
Zhengxian Gong, Min Zhang, Chew-lim Tan and Guodong Zhou.....	
<i>Extracting and Normalizing Entity-Actions from Users' Comments</i>	421
Swapna Gottipati and Jing Jiang	
<i>Expected Divergence Based Feature Selection for Learning to Rank</i>	431
Parth Gupta and Paolo Rosso	
<i>LEPOR: A Robust Evaluation Metric for Machine Translation with Augmented Factors</i>	441
Aaron L. F. Han, Derek F. Wong and Lidia S. Chao.....	
<i>Predicting Stance in Ideological Debate with Rich Linguistic Knowledge</i>	451
Kazi Saidul Hasan and Vincent Ng	
<i>FeatureForge: A Novel Tool for Visually Supported Feature Engineering and Corpus Revision</i>	461
Florian Heimerl, Charles Jochim, Steffen Koch and Thomas Ertl	
<i>Verb Temporality Analysis using Reichenbach's Tense System</i>	471
André Horie, Kumiko Tanaka-Ishii and Mitsuru Ishizuka	
<i>A Metric for Evaluating Discourse Coherence based on Coreference Resolution</i>	483
Ryu Iida and Takenobu Tokunaga.....	
<i>Comparing Word Relatedness Measures Based on Google n-grams</i>	495
Aminul Islam, Evangelos Milios and Vlado Keselj.....	
<i>Two-Stage Bootstrapping for Anaphora Resolution</i>	507
Balaji Jagan, T V Geetha and Ranjani Parthasarathi	
<i>Explorations in the Speakers' Interaction Experience and Self-Assessments</i>	517
Kristiina Jokinen	

<i>Multimodal Signals and Holistic Interaction Structuring</i>	527
Kristiina Jokinen and Graham Wilcock	
<i>New Insights from Coarse Word Sense Disambiguation in the Crowd</i>	539
Adam Kapelner, Krishna Kaliannan, H. Andrew Schwartz, Lyle Ungar and Dean Foster	
<i>A Unified Sentence Space for Categorical Distributional-Compositional Semantics: Theory and Experiments</i>	549
Dimitri Kartsaklis, Mehrnoosh Sadrzadeh and Stephen Pulman	
<i>A Knowledge-Based Approach to Syntactic Disambiguation of Biomedical Noun Compounds</i>	559
Ramakanth Kavuluru and Daniel Harris	
<i>Classification of Inconsistent Sentiment Words using Syntactic Constructions</i>	569
Wiltrud Kessler and Hinrich Schütze	
<i>Learning Semantics with Deep Belief Network for Cross-Language Information Retrieval</i>	579
Jungi Kim, Jinseok Nam and Iryna Gurevych	
<i>Detection of Acoustic-Phonetic Landmarks in Mismatched Conditions using a Biomimetic Model of Human Auditory Processing</i>	589
Sarah King and Mark Hasegawa-Johnson	
<i>Learning Verbs on the Fly</i>	599
Zornitsa Kozareva	
<i>Decoder-based Discriminative Training of Phrase Segmentation for Statistical Machine Translation</i>	611
Hyoung-Gyu Lee and Hae-Chang Rim	
<i>Glimpses of Ancient China from Classical Chinese Poems</i>	621
John Lee and Tak-sum Wong	
<i>Conversion between Scripts of Punjabi: Beyond Simple Transliteration</i>	633
Gurpreet Singh Lehal and Tejinder Singh Saini	
<i>Development of a Complete Urdu-Hindi Transliteration System</i>	643
Gurpreet Singh Lehal and Tejinder Singh Saini	
<i>Random Walks on Context-Aware Relation Graphs for Ranking Social Tags</i>	653
Han Li, Zhiyuan Liu and Maosong Sun	
<i>Phrase-Based Evaluation for Machine Translation</i>	663
Liangyou Li, Zhengxian Gong and Guodong Zhou	
<i>A Beam Search Algorithm for ITG Word Alignment</i>	673
Peng Li, Yang Liu and Maosong Sun	
<i>Active Learning for Chinese Word Segmentation</i>	683
Shoushan Li, Guodong Zhou and Chu-Ren Huang	
<i>Fine-Grained Classification of Named Entities by Fusing Multi-Features</i>	693
Wenjie Li, Jiwei Li, Ye Tian and Zhifang Sui	
<i>Expert Finding for Microblog Misinformation Identification</i>	703
Chen Liang, Zhiyuan Liu and Maosong Sun	

<i>Improving Relative-Entropy Pruning using Statistical Significance</i>	Wang Ling, Nadi Tomeh, Guang Xiang, Isabel Trancoso and Alan Black	713
<i>Expected Error Minimization with Ultraconservative Update for SMT</i>	Lemao Liu, Tiejun Zhao, Taro Watanabe, Hailong Cao and Conghui Zhu	723
<i>Generalized Sentiment-Bearing Expression Features for Sentiment Analysis</i>	Shizhu Liu, Gady Agam and David Grossman	733
<i>Unsupervised Domain Adaptation for Joint Segmentation and POS-Tagging</i>	Yang Liu and Yue Zhang	745
<i>Tag Dispatch Model with Social Network Regularization for Microblog User Tag Suggestion</i>	Zhiyuan Liu, Cunchao Tu and Maosong Sun	755
<i>Summarization of Business-Related Tweets: A Concept-Based Approach</i>	Annie Louis and Todd Newman	765
<i>Towards the Automatic Detection of the Source Language of a Literary Translation.</i>	Gerard Lynch and Carl Vogel	775
<i>Fourth-Order Dependency Parsing</i>	Xuezhe Ma and Hai Zhao	785
<i>A Subjective Logic Framework for Multi-Document Summarization</i>	Sukanya Manna, Byron J. Gao and Reed Coke	797
<i>Manual Corpus Annotation: Giving Meaning to the Evaluation Metrics</i>	Yann Mathet, Antoine Widlöcher, Karën Fort, Claire François, Olivier Galibert, Cyril Grouin, Juliette Kahn, Sophie Rosset and Pierre Zweigenbaum	809
<i>Discriminative Boosting from Dictionary and Raw Text – A Novel Approach to Build A Chinese Word Segmenter</i>	Fandong Meng, Wenbin Jiang, Hao Xiong and Qun Liu	819
<i>Lost in Translations? Building Sentiment Lexicons using Context Based Machine Translation</i>	Xinfan Meng, Furu Wei, Ge Xu, Longkai Zhang, Xiaohua Liu, Ming Zhou and Houfeng Wang	829
<i>How Does the Granularity of an Annotation Scheme Influence Dependency Parsing Performance?</i>	Simon Mille, Alicia Burga, Gabriela Ferraro and Leo Wanner	839
<i>Does Tectogrammatics Help the Annotation of Discourse?</i>	Jiří Mírovský, Pavlína Jínová and Lucie Poláková	853
<i>The Effect of Learner Corpus Size in Grammatical Error Correction of ESL Writings</i>	Tomoya Mizumoto, Yuta Hayashibe, Mamoru Komachi, Masaaki Nagata and Yuji Matsumoto	
	863	
<i>GRAFIX: Automated Rule-Based Post Editing System to Improve English-Persian SMT Output</i>	Mahsa Mohaghegh, Abdolhossein Sarrafzadeh and Mehdi Mohammadi	873
<i>Relational Structures and Models for Coreference Resolution</i>	Truc-Vien T. Nguyen and Massimo Poesio	883

<i>Text Summarization Model based on Redundancy-Constrained Knapsack Problem</i>	893
Hitoshi Nishikawa, Tsutomu Hirao, Toshiro Makino and Yoshihiro Matsuo	893
<i>Lexical Categories for Improved Parsing of Web Data</i>	903
Lilja Øvrelid and Arne Skjærholt	903
<i>Text-To-Speech for Languages without an Orthography</i>	913
Sukhada Palkar, Alan Black and Alok Parlikar	913
<i>Part of Speech (POS) Tagger for Kokborok</i>	923
Braja Gopal Patra, Khumbar Debbarma, Dipankar Das and Sivaji Bandyopadhyay ...	923
<i>Forced Derivations for Hierarchical Machine Translation</i>	933
Stephan Peitz, Arne Mauser, Joern Wuebker and Hermann Ney	933
<i>On Panini and the Generative Capacity of Contextualized Replacement Systems</i>	943
Gerald Penn and Paul Kiparsky	943
<i>Joint Segmentation and Tagging with Coupled Sequences Labeling</i>	951
Xipeng Qiu, Feng Ji, Jiayi Zhao and Xuanjing Huang	951
<i>Defining Syntax for Learner Language Annotation</i>	965
Marwa Ragheb and Markus Dickinson	965
<i>How Good are Typological Distances for Determining Genealogical Relationships among Languages?</i>	975
Taraka Rama and Prasanth Kolachina	975
<i>Sentence Boundary Detection: A Long Solved Problem?</i>	985
Jonathon Read, Rebecca Dridan, Stephan Oepen and Lars Jørgen Solberg	985
<i>Document and Corpus Level Inference For Unsupervised and Transductive Learning of Information Structure of Scientific Documents</i>	995
Roi Reichart and Anna Korhonen	995
<i>Light Textual Inference for Semantic Parsing</i>	1007
Kyle Richardson and Jonas Kuhn	1007
<i>Korektor -- A System for Contextual Spell-Checking and Diacritics Completion</i>	1019
Michal Richter, Pavel Straňák and Alexandr Rosen	1019
<i>Using Qualia Information to Identify Lexical Semantic Classes in an Unsupervised Clustering Task</i>	1029
Lauren Romeo, Sara Mendes and Núria Bel	1029
<i>A Strategy of Mapping Polish WordNet onto Princeton WordNet</i>	1039
Ewa Rudnicka, Marek Maziarz, Maciej Piasecki and Stan Szpakowicz	1039
<i>A Hierarchical Domain Model-Based Multi-Domain Selection Framework for Multi-Domain Dialog Systems</i>	1049
Seonghan Ryu, Donghyeon Lee, Injae Lee, Sangdo Han, Gary Geunbae Lee, Myungjae Kim and Kyungduk Kim	1049
<i>A Fully Coreference-annotated Corpus of Scholarly Papers from the ACL Anthology</i>	1059
Ulrich Schäfer, Christian Spurk and Jörg Steffen	1059

<i>Continuous Space Translation Models for Phrase-Based Statistical Machine Translation</i>	1071
Holger Schwenk	
<i>Data-driven Dependency Parsing With Empty Heads</i>	1081
Wolfgang Seeker, Richárd Farkas, Bernd Bohnet, Helmut Schmid and Jonas Kuhn	
<i>Extension of TSVM to Multi-Class and Hierarchical Text Classification Problems With General Losses</i>	1091
Sathiya Keerthi Selvaraj, Sundararajan Sellamanickam and Shirish Shevade	
<i>Calculation of Phrase Probabilities for Statistical Machine Translation by using Belief Functions</i>	1101
Christophe Servan and Simon Petitrenaud	
<i>Sense and Reference Disambiguation in Wikipedia</i>	1111
Hui Shen, Razvan Bunescu and Rada Mihalcea	
<i>Unsupervised Metaphor Paraphrasing using a Vector Space Model</i>	1121
Ekaterina Shutova, Tim van de Cruys and Anna Korhonen	
<i>Memory-Efficient Katakana Compound Segmentation using Conditional Random Fields</i>	1131
Krauchanka Siarhei and Artsimena Artsiom	
<i>New Readability Measures for Bangla and Hindi Texts</i>	1141
Manjira Sinha, Sakshi Sharma, Tirthankar Dasgupta and Anupam Basu	
<i>Automatic Question Generation in Multimedia-Based Learning</i>	1151
Yvonne Skalban, Le An Ha, Lucia Specia and Ruslan Mitkov	
<i>A More Cohesive Summarizer</i>	1161
Christian Smith, Henrik Danielsson and Arne Jönsson	
<i>Robust Learning in Random Subspaces: Equipping NLP for OOV Effects</i>	1171
Anders Søgaard and Anders Johannsen	
<i>An Empirical Study of Non-Lexical Extensions to Delexicalized Transfer</i>	1181
Anders Søgaard and Julie Wulff	
<i>Entropy-based Training Data Selection for Domain Adaptation</i>	1191
Yan Song, Prescott Klassen, Fei Xia and Chunyu Kit	
<i>Corpus-based Explorations of Affective Load Differences in Arabic-Hebrew-English</i>	1201
Carlo Strapparava, Oliviero Stock and Ilai Alon	
<i>Acquiring and Generalizing Causal Inference Rules from Deverbal Noun Constructions</i>	1209
Shohei Tanaka, Naoaki Okazaki and Mitsuru Ishizuka	
<i>Advertising Legality Recognition</i>	1219
Yi-jie Tang, Cong-kai Lin and Hsin-Hsi Chen	
<i>A Joint Phrasal and Dependency Model for Paraphrase Alignment</i>	1229
Kapil Thadani, Scott Martin and Michael White	
<i>Sourcing the Crowd for a Few Good Ones: Event Type Detection</i>	1239
Caselli Tommaso and Huang Chu-Ren	

<i>Combining Multiple Alignments to Improve Machine Translation</i>	Zhaopeng Tu, Yang Liu, Yifan He, Josef van Genabith, Qun Liu and Shouxun Lin ..	1249
<i>A New Search Approach for Interactive-Predictive Computer-Assisted Translation</i>	Zeinab Vakil and Shahram Khadivi	1261
<i>Automatic Extraction of Polar Adjectives for the Creation of Polarity Lexicons</i>	Silvia Vázquez, Muntsa Padró, Núria Bel and Julio Gonzalo	1271
<i>Optimal Scheduling of Information Extraction Algorithms</i>	Henning Wachsmuth and Benno Stein	1281
<i>Update Summarization Based on Co-Ranking with Constraints</i>	Xiaojun Wan	1291
<i>Sentence Realization with Unlexicalized Tree Linearization Grammars</i>	Rui Wang and Yi Zhang	1301
<i>Exploiting Discourse Relations for Sentiment Analysis</i>	Fei Wang, Yunfang Wu and Likun Qiu	1311
<i>Expansion Methods for Job-Candidate Matching Amidst Unreliable and Sparse Data</i>	Jerome White, Krishna Kummamuru and Nitendra Rajput	1321
<i>A Unified Framework for Discourse Argument Identification via Shallow Semantic Parsing</i>	Fan Xu, Qiaoming Zhu and Guodong Zhou	1331
<i>Using Deep Linguistic Features for Finding Deceptive Opinion Spam</i>	Qiongkai Xu and Hai Zhao	1341
<i>Latent Community Discovery with Network Regularization for Core Actors Clustering</i>	Guangxu Xun, Yujiu Yang, Liangwei Wang and Wenhuan Liu	1351
<i>HYENA: Hierarchical Type Classification for Entity Names</i>	Mohamed Amir Yosef, Sandro Bauer, Johannes Hoffart, Marc Spaniol and Gerhard Weikum 1361	
<i>Identifying Temporal Relations by Sentence and Document Optimizations</i>	Katsumasa Yoshikawa, Masayuki Asahara and Ryu Iida	1371
<i>Affect Detection from Semantic Interpretation of Drama Improvisation</i>	Li Zhang and Ming Jiang	1381
<i>Analyzing the Effect of Global Learning and Beam-Search on Transition-Based Dependency Parsing</i>	Yue Zhang and Joakim Nivre	1391
<i>Chinese Word Sense Disambiguation based on Context Expansion</i>	Yang Zhizhuo and Huang Heyan	1401
<i>Cross-Lingual Identification of Ambiguous Discourse Connectives for Resource-Poor Language</i>	Lanjun Zhou, Wei Gao, Binyang Li, Zhongyu Wei and Kam-Fai Wong	1409