

ACL 2007



ACL 2007

Proceedings of the Second Workshop on Statistical Machine Translation

June 23, 2007
Prague, Czech Republic



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Omnipress Inc.
2600 Anderson Street
Madison, WI 53704

Sponsored by the EuroMatrix project under the Framework Programme 6 of the European Commission



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Preface

The ACL 2007 Workshop on Statistical Machine Translation (WMT-07) took place on Saturday, June 23 in Prague, Czech Republic, immediately preceding the annual meeting of the Association for Computational Linguistics, which was hosted by Charles University. This was the second time this workshop had been held, following the first workshop at the 2006 HLT-NAACL conference. But its ancestry can be traced back farther to the ACL 2005 Workshop on Building and Using Parallel Texts (when we started our evaluation campaign on European languages), and even the ACL 2001 Workshop on Data-Driven Machine Translation (which was the first ACL workshop mostly directed at statistical machine translation).

Over the last years, interest in statistical machine translation has been risen dramatically. We received an overwhelming number of full paper submission for a one-day workshop, 38 in total. Given our limited capacity, we were only able to accept 12 full papers for oral presentation and 9 papers for poster presentation, an acceptance rate of 55%. In a second poster session, 16 additional shared task papers were presented. The workshop also featured an invited talk by Jean Senellart of SYSTRAN Language Translation Technology, Paris.

Prior to the workshop, in addition to soliciting relevant papers for review and possible presentation we conducted a shared task that brought together machine translation systems for an evaluation on previously unseen data. This year's task resembled the shared tasks of previous years in many ways. Its focus was again the translation of European languages, using a relatively large training corpus. This year, we included a variety of manual evaluations of the MT systems' outputs, and a variety of automated evaluation metrics. Also, as a special challenge this year, we posed the problem of domain adaptation.

The results of the shared task were announced at the workshop, and these proceedings also include an overview paper for the shared task that summarizes the results, as well as provides information about the data used and any procedures that were followed in conducting or scoring the task. In addition, there are short papers from each participating team that describe their underlying system in some detail.

We would like to thank the members of the Program Committee for their timely reviews. We also would like to thank the participants of the shared task, the participants of the MT Marathon, which was organized by the University of Edinburgh in March this year, and all the other volunteers who helped with the manual evaluations. We also acknowledge financial support for the manual evaluation by the EuroMatrix project (funded by the European Commission under the Framework Programme 6).

Chris Callison-Burch, Philipp Koehn, Christof Monz, and Cameron Shaw Fordyce
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Philipp Koehn (University of Edinburgh)
Christof Monz (Queen Mary, University of London)
Cameron Shaw Fordyce (Center for the Evaluation of Language and Communication Technologies)

Invited Speaker:

Jean Senellart (SYSTRAN Language Translation Technology, Paris)

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Additional Reviewers: Joshua Albrecht, Marine Carpuat, Hirofumi Yamamoto, and Keiji Yasuda.

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Conference Program

Saturday, June 23, 2007

8:30–8:35 Opening Remarks

Full Paper Session 1

8:35–8:55 *Using Dependency Order Templates to Improve Generality in Translation*
Arul Menezes and Chris Quirk

8:55–9:15 *CCG Supertags in Factored Statistical Machine Translation*
Alexandra Birch, Miles Osborne and Philipp Koehn

9:15–9:35 *Integration of an Arabic Transliteration Module into a Statistical Machine Translation System*
Mehdi M. Kashani, Eric Joanis, Roland Kuhn, George Foster and Fred Popowich

9:35–9:55 *Exploring Different Representational Units in English-to-Turkish Statistical Machine Translation*
Kemal Oflazer and Ilknur Durgar El-Kahlout

9:55–10:15 *Can We Translate Letters?*
David Vilar, Jan-Thorsten Peter and Hermann Ney

Poster Session for Full Papers

10:15–10:45 Boaster session for full paper posters

10:45–11:45 Coffee break + full paper poster session

A Dependency Treelet String Correspondence Model for Statistical Machine Translation
Deyi Xiong, Qun Liu and Shouxun Lin

Word Error Rates: Decomposition over POS classes and Applications for Error Analysis
Maja Popovic and Hermann Ney

Speech-Input Multi-Target Machine Translation
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Meta-Structure Transformation Model for Statistical Machine Translation

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Training Non-Parametric Features for Statistical Machine Translation

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Using Word-Dependent Transition Models in HMM-Based Word Alignment for Statistical Machine Translation

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Labelled Dependencies in Machine Translation Evaluation

Karolina Owczarzak, Josef van Genabith and Andy Way

Invited Talk

11:45–12:30 Invited Talk by Jean Senellart, Systran

Lunch

Full Paper Session 2

14:00–14:20 *An Iteratively-Trained Segmentation-Free Phrase Translation Model for Statistical Machine Translation*

Robert Moore and Chris Quirk

14:20–14:40 *Using Paraphrases for Parameter Tuning in Statistical Machine Translation*

Nitin Madnani, Necip Fazil Ayan, Philip Resnik and Bonnie Dorr

14:40–15:00 *Mixture-Model Adaptation for SMT*

George Foster and Roland Kuhn

Saturday, June 23, 2007 (continued)

Shared Task

- 15:00–15:15 *(Meta-) Evaluation of Machine Translation*
Chris Callison-Burch, Cameron Fordyce, Philipp Koehn, Christof Monz and Josh Schroeder
- 15:15–15:45 Boaster session for shared task posters
- 15:45–16:45 Coffee break + shared task poster session

Context-aware Discriminative Phrase Selection for Statistical Machine Translation
Jesús Giménez and Lluís Màrquez

Ngram-Based Statistical Machine Translation Enhanced with Multiple Weighted Reordering Hypotheses
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Ondřej Bojar

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17:45–18:05 *Linguistic Features for Automatic Evaluation of Heterogenous MT Systems*

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