

NAACL HLT 2016

**Workshop on Multilingual and Cross-lingual
Methods in NLP**

Proceedings of the Workshop

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Introduction

The goal of this workshop is to expand the current area of cross-lingual learning to include more NLP problems, encourage approaches that explore low-resource scenarios, and improve upon existing approaches to multilinguality.

State-of-the-art NLP tools such as text parsing, speech recognition and synthesis, text and speech translation, semantic analysis and inference, rely on availability of language-specific data resources that exist only for a few resource-rich languages. To make NLP tools available in more languages, techniques have been developed for projecting such resources from resource-rich languages using parallel (translated) data as a bridge for cross-lingual NLP applications. The limiting reagent in these methods is parallel data or bilingual lexicons. While small parallel corpora do exist for many languages, suitably large parallel corpora are expensive, and these typically exist only for English and a few other geopolitically or economically important language pairs. Given this state of affairs, there is an urgent need for new cross-lingual methods, language-independent multilingual methods, and methods for establishing lexical links across languages that do not necessarily rely on large-scale parallel corpora. Without new strategies, most of the 7,000+ languages in the world—many with millions of speakers—will remain resource-poor from the standpoint of NLP.

This workshop features submissions from a diverse range of multilingual NLP problems, and invited talks from leading researchers working on multilingual NLP. We would like to thank the members of the program committee for their diligent work — the reviews were all very thorough, and detailed, which helped the authors improve their papers.

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Yulia Tsvetkov, Carnegie Mellon University, USA

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Dani Yogatama, Baidu, USA
Daniel Zeman, Charles University in Prague, Czech Republic

Invited Speakers:

Kyunghyun Cho, New York University, USA
Chris Dyer, Google DeepMind, UK
Dan Garrette, University of Washington, USA
Kevin Knight, University of Southern California, USA
Nathan Schneider, Georgetown University, USA
Ivan Titov, University of Amsterdam, Netherlands
David Yarowsky, Johns Hopkins University, USA

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Workshop Program

- 9:15–9:30 *Opening Remarks*
Yulia Tsvetkov
- 9:30–10:10 *Evaluation by Compression*
Invited Talk by Kevin Knight
- 10:10–10:50 *Multi-way, Multilingual Neural Machine Translation*
Invited Talk by Kyunghyun Cho
- 10:50–11:10 *Coffee Break*
- 11:10–11:50 *The Case for a Coarse-grained Multilingual Representation of Case and Adposition Semantics*
Invited Talk by Nathan Schneider
- 11:50–12:30 *To be decided*
Invited Talk by Chris Dyer
- 12:30–1:30 *Lunch and Setting Posters*
- 1:30–1:50 *Comparing Fifty Natural Languages and Twelve Genetic Languages Using Word Embedding Language Divergence (WELD) as a Quantitative Measure of Language Distance*
Ehsaneddin Asgari and Mohammad R.K. Mofrad
- 2:00–3:30 *Posters and Coffee*
- 3:30–4:10 *Cross-lingual and Unsupervised Learning of Semantic Representations*
Invited Talk by Ivan Titov
- 4:10–4:50 *Unsupervised Modeling of Code-Switching and Orthographic Variation, and its Application to the Study of Digital Humanities*
Invited Talk by Dan Garrette
- 4:50–5:30 *Cross-lingual Learning of Universalized Morphosemantics*
Invited Talk by David Yarowsky
- 5:30–5:45 *Best Paper & Poster Awards*

