

ACL 2020

**The 5th Workshop on Representation Learning for NLP
(RepL4NLP-2020)**

Proceedings of the Workshop

July 9, 2020

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Introduction

The 5th Workshop on Representation Learning for NLP (RepL4NLP-2020) will be hosted at ACL 2020. The workshop is being organised by Spandana Gella, Johannes Welbl, Marek Rei, Fabio Petroni, Patrick Lewis, Emma Strubell, Minjoon Seo and Hannaneh Hajishirzi; and advised by Isabelle Augenstein, Kyunghyun Cho, Edward Grefenstette, Karl Moritz Hermann, and Chris Dyer. The workshop is organised by the ACL Special Interest Group on Representation Learning (SIGREP).

The 5th Workshop on Representation Learning for NLP aims to continue the success of the 1st Workshop on Representation Learning for NLP (about 50 submissions and over 250 attendees; second most attended collocated event at ACL'16 after WMT), 2nd Workshop on Representation Learning for NLP, 3rd Workshop on Representation Learning for NLP, and 4th Workshop on Representation Learning for NLP. The workshop was introduced as a synthesis of several years of independent *CL workshops focusing on vector space models of meaning, compositionality, and the application of deep neural networks and spectral methods to NLP. It provides a forum for discussing recent advances on these topics, as well as future research directions in linguistically motivated vector-based models in NLP.

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Marek Rei, Imperial College London
Fabio Petroni, Facebook AI Research
Patrick Lewis, University College London & FAIR
Emma Strubell, Carnegie Mellon University & FAIR
Minjoon Seo, University of Washington & Naver
Hannaneh Hajishirzi, University of Washington

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Edward Grefenstette, Facebook AI Research & University College London
Karl Moritz Hermann, DeepMind
Laura Rimell, DeepMind
Chris Dyer, DeepMind
Isabelle Augenstein, University of Copenhagen

Keynote Speakers:

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Ellie Pavlick, Brown University & Google
Mike Lewis, Facebook AI Research
Evelina Fedorenko, Massachusetts Institute of Technology

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Dirk Weissenborn
Rodrigo Wilkens
Yuxiang Wu
Yadollah Yaghoobzadeh
Haiqin Yang
Majid Yazdani
Wen-tau Yih
Hong Yu
Wenxuan Zhou
Dong Zhou
Xiangyang Zhou
Imed Zitouni
Diarmuid Ó Séaghdha
Robert Östling

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Workshop Program

Thursday, July 9, 2020

9:30–9:45 **Welcome and Opening Remarks**

9:45–14:45 **Keynote Session**

9:45–10:30 *Invited talk 1*
Kristina Toutanova

10:30–11:00 **Coffee Break**

11:00–11:45 *Invited talk 2*
Ellie Pavlick

11:45–12:30 *Invited talk 3*
Mike Lewis

12:30–14:00 **Lunch**

14:00–14:45 *Invited talk 4*
Evelina Fedorenko

14:45–15:00 **Outstanding Papers Spotlight Presentations**

Thursday, July 9, 2020 (continued)

15:00–16:30 Poster Session

Zero-Resource Cross-Domain Named Entity Recognition

Zihan Liu, Genta Indra Winata and Pascale Fung

Encodings of Source Syntax: Similarities in NMT Representations Across Target Languages

Tyler A. Chang and Anna Rafferty

Learning Probabilistic Sentence Representations from Paraphrases

Mingda Chen and Kevin Gimpel

On the Ability of Self-Attention Networks to Recognize Counter Languages

Satwik Bhattamishra, Kabir Ahuja and Navin Goyal

Word Embeddings as Tuples of Feature Probabilities

Siddharth Bhat, Alok Debnath, Souvik Banerjee and Manish Shrivastava

Compositionality and Capacity in Emergent Languages

Abhinav Gupta, Cinjon Resnick, Jakob Foerster, Andrew Dai and Kyunghyun Cho

Learning Geometric Word Meta-Embeddings

Pratik Jawanpuria, Satya Dev N T V, Anoop Kunchukuttan and Bamdev Mishra

Variational Inference for Learning Representations of Natural Language Edits

Edison Marrese-Taylor, Machel Reid and Yutaka Matsuo

Improving Bilingual Lexicon Induction with Unsupervised Post-Processing of Monolingual Word Vector Spaces

Ivan Vulić, Anna Korhonen and Goran Glavaš

Adversarial Training for Commonsense Inference

Lis Pereira, Xiaodong Liu, Fei Cheng, Masayuki Asahara and Ichiro Kobayashi

Evaluating Natural Alpha Embeddings on Intrinsic and Extrinsic Tasks

Riccardo Volpi and Luigi Malagò

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Exploring the Limits of Simple Learners in Knowledge Distillation for Document Classification with DocBERT

Ashutosh Adhikari, Achyudh Ram, Raphael Tang, William L. Hamilton and Jimmy Lin

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Cemil Cengiz and Deniz Yuret

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Lukas Lange, Anastasiia Iurshina, Heike Adel and Jannik Strötgen

Contextual and Non-Contextual Word Embeddings: an in-depth Linguistic Investigation

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Are All Languages Created Equal in Multilingual BERT?

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Staying True to Your Word: (How) Can Attention Become Explanation?

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On Dimensional Linguistic Properties of the Word Embedding Space

Vikas Raunak, Vaibhav Kumar, Vivek Gupta and Florian Metze

A Simple Approach to Learning Unsupervised Multilingual Embeddings

Pratik Jawanpuria, Mayank Meghwanshi and Bamdev

A Cross-Task Analysis of Text Span Representations

Shubham Toshniwal, Haoyue Shi, Bowen Shi, Lingyu Gao, Karen Livescu and Kevin Gimpel

Thursday, July 9, 2020 (continued)

Enhancing Transformer with Sememe Knowledge

Yuhui Zhang, Chenghao Yang, Zhengping Zhou and Zhiyuan Liu

Evaluating Compositionality of Sentence Representation Models

Hanoz Bhatena, Angelica Willis and Nathan Dass

AI4Bharat-IndicNLP Dataset: Monolingual Corpora and Word Embeddings for Indic Languages: Monolingual Corpora and Word Embeddings for Indic Languages
Anoop Kunchukuttan, Divyanshu Kakwani, Satish Golla, Gokul N.C., Avik Bhat-
tacharya, Mitesh M. Khapra and Pratyush Kumar

Supertagging with CCG primitives

Aditya Bhargava and Gerald Penn

What's in a Name? Are BERT Named Entity Representations just as Good for any other Name?

Sriram Balasubramanian, Naman Jain, Gaurav Jindal, Abhijeet Awasthi and Sunita Sarawagi

16:30–17:30 Panel Discussion

17:30–17:40 Closing Remarks and Best Paper Announcement