DMR 2020

The 2nd International Workshop on Designing Meaning Representations

Proceedings of the Workshop

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Preface

While deep learning methods have led to many breakthroughs in practical natural language applications, most notably in Machine Translation, Machine Reading, Question Answering, Recognizing Textual Entailment, and so on, there is still a sense among many NLP researchers that we have a long way to go before we can develop systems that can actually "understand" human language and explain the decisions they make. Indeed, "understanding" natural language entails many different human-like capabilities, and they include but are not limited to the ability to track entities in a text, understand the relations between these entities, track events and their participants, understand how events unfold in time, and distinguish events that have actually happened from events that are planned or intended, are uncertain, or did not happen at all. "Understanding" also entails human-like ability to perform qualitative and quantitative reasoning, possibly with knowledge acquired about the real world. We believe a critical step in achieving natural language understanding is to design meaning representations for text that have the necessary meaning "ingredients" that help us achieve these capabilities.

This workshop intends to bring together researchers who are producers and consumers of meaning representations and through their interaction gain a deeper understanding of the key elements of meaning representations that are the most valuable to the NLP community. The workshop will also provide an opportunity for meaning representation researchers to critically examine existing frameworks with the goal of using their findings to inform the design of next-generation meaning representations. A third goal of the workshop is to explore opportunities and identify challenges in the design and use of meaning representations in multilingual settings. A final goal of the workshop is to understand the relationship between distributed meaning representations trained on large data sets using network models and the symbolic meaning representations that are carefully designed and annotated by CL researchers and gain a deeper understanding of areas where each type of meaning representation is the most effective, and how they can be linked.

We received 15 valid submissions and accepted 10 papers for oral presentations. One paper has since been withdrawn from the workshop after it was accepted. The papers address topics ranging from meaning representation methodologies to issues in meaning representation parsing, to the adaptation of meaning representations to specific applications and domains, to cross-linguistic issues in meaning representation. We thank the authors and reviewers for their contributions. In addition to the regular program, we also have three invited speakers, Daniel Gildea, Lori Levin, and Mark Steedman, to speak on topics ranging from meaning representation and knowledge, to cross-lingual issues in meaning representation design, to meaning representation applications. We look forward to a stimulating and exciting online workshop.

Nianwen Xue, Johan Bos, William Croft, Jan Hajič, Chu-Ren Huang, Stephan Oepen, Martha Palmer, James Pustejovsky

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Nathan Schneider, Georgetown University
Zdenka Uresova, Charles University
Ashwini Vaidya, Indian Institute of Technology Delhi
Chuan Wang, Google
Anssi Yli-Jyrä, University of Helsinki

Invited Speakesr:

Daniel Gildea, University of Rochester
Lori Levin, Carnegie Mellon University
Mark Steedman, University of Edinburgh

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Workshop Program

Sunday, December 13, 2020

14:00–15:20 **Session A:**

14:00–14:50 **Invited Talk by Mark Steedman: Unsupervised Design of Explainable Meaning Representations**

14:50–15:00 *A Continuation Semantics for Abstract Meaning Representation* **ID: 12**

Kenneth Lai, Lucia Donatelli and James Pustejovsky

15:00–15:10 *Separating Argument Structure from Logical Structure in AMR* **ID: 3**
Johan Bos

15:10–15:20 *Building Korean Abstract Meaning Representation Corpus* **ID: 4**

Hyonsu Choe, Jiyoon Han, Hyejin Park, Tae Hwan Oh and Hansaem Kim

15:50–17:10 **Session B:**

15:50–16:40 **Invited Talk by Lori Levin**

16:40–16:50 *Cross-lingual annotation: a road map for low- and no-resource languages* **ID: 14**

Meagan Vigus, Jens E. L. Van Gysel, Tim O'Gorman, Andrew Cowell, Rosa Vallejos and William Croft

16:50–17:00 *Refining Implicit Argument Annotation for UCCA* **ID: 1**

Ruixiang Cui and Daniel Hershcovich

17:00–17:10 *K-SNACS: Annotating Korean Adposition Semantics* **ID: 9**

Jena D. Hwang, Hanwool Choe, Na-Rae Han and Nathan Schneider

17:40–19:00 **Session C:**

17:40–17:50 *InfoForager: Leveraging Semantic Search with AMR for COVID-19 Research* **ID: 13**
Claire Bonial, Stephanie M. Lukin, David Doughty, Steven Hill and Clare Voss

17:50–18:00 *Semantic parsing with fuzzy meaning representations* **ID: 8**

Pavlo Kapustin and Michael Kapustin

18:00–18:10 *Representing constructional metaphors* **ID: 11**

Pavlina Kalm, Michael Regan, Sook-kyung Lee, Chris Peverada and William Croft

18:10–19:00 **Invited Talk by Daniel Gildea: Translation and Evaluation of AMRs**