The First International Workshop
on Designing Meaning Representations

Proceedings of the Workshop

August 1, 2019
Florence, Italy
Preface

There are many pressing questions that need to be answered in the field of designing and parsing meaning representations. First and foremost, does the field have an existential crisis in the face of the powerful combination of distributed representations and deep neural networks that recently led to many advances in the field or Natural Language Processing? In other words, will the distributed representations displace the “traditional” symbolic meaning representations that have been in development for many decades? If the answer is no, what are the areas where the symbolic meaning representation is most needed and has an advantage over distributed representations? There are currently also different schools of thoughts on how meaning should be represented. Can a consensus be forged on the key elements of meaning representation that are most needed given our current understanding of the needs in natural language applications? Regardless of the breadth of their use in natural language processing, how can meaning representations help us to advance theoretical linguistic research?

The 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 also provides an opportunity for meaning representation researchers to critically examine existing meaning representations 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 neural 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.

We received 27 valid submissions, and accepted 10 papers for oral presentations and 12 for poster presentations. 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, Omri Abend, Alexander Koller, and Fei Liu, to speak on typologically informed meaning representation design, cross-framework meaning representation parsing, and the application of meaning representations to abstractive summarization. We look forward to a stimulating and exciting workshop in Florence.

Nianwen Xue, William Croft, Jan Hajic, Chu-Ren Huang, Stephan Oepen, Martha Palmer, James Pustejovsky
Organizers:

Nianwen Xue, Brandeis University
William Croft, University of New Mexico
Jan Hajic, Charles University
Chu-Ren Huang, The Hong Kong Polytechnic University
Stephan Oepen, University of Oslo
Martha Palmer, University of Colorado
James Pustejovsky, Brandeis University

Program Committee:

Abend, Omri, The Hebrew University of Jerusalem
Aroonmanakun, Wirote, Chulalongkorn University
Artzi, Yoav, Cornell University
Bender, Emily, University of Washington
Blache, Philippe, LPL/CNRS and Aix-Marseille University
Bos, Johan, University of Groningen
Butler, Alastair, Hirosaki University
Chersoni, Emmanuele, The Hong Kong Polytechnic University
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dePaiva, Valeira, Nuance Communications
Flanigan, Jeffrey, University of Mass, Amherst
Flickinger, Dan, Stanford University
Griffit, Kira, UPenn/LDC
Haug, Dag, University of Oslo
Hershcovich, Daniel The Hebrew University of Jerusalem
Kanzaki, Kyoko, Toyohashi University of Technology
Kennedy, Chris, The University of Chicago
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Levin, Lori, CMU
Li, Bin, Nanjing Normal University, China
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Øvrelid, Lilja, University of Oslo
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Rutherford, Attapol, Chulalongkorn University
Schneider, Nathan, Georgetown University
Sun, Weiwei, Peking University
Tokunaga, Takeobu, Tokyo Institute of Technology
Uresova, Zdenka, Charles University
Voss, Clare, Army Research Lab
Wang, Chuan, Google
Webber, Bonnie, University of Edinburgh
Xu, Hongzhi, University of Pennsylvania
Zhang, Yuchen, Brandeis University

Invited Speakers:
Omri Abend, Hebrew University of Jerusalem
Alexander Koller, Saarland University
Fei Liu, University of Central Florida
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Workshop Program

Thursday, August 1, 2019

08:50–10:30  Session A: invited talk + oral presentations

08:50–09:00  Opening remarks, by Nianwen Xue, William Croft, Jan Hajic, Churen Huang, Stephan Oepen, Martha Palmer, James Pustejovsky

09:00–09:40  Invited talk: "The Case for Typologically informed meaning representations", by Omri Abend

09:40–10:00  *Cross-Linguistic Semantic Annotation: Reconciling the Language-Specific and the Universal*  
Jens E. L. Van Gysel, Meagan Vigus, Pavlina Kalm, Sook-kyung Lee, Michael Regan and William Croft

10:00–10:20  *Thirty Musts for Meaning Banking*  
Lasha Abzianidze and Johan Bos

10:20–10:30  *Modeling Quantification and Scope in Abstract Meaning Representations*  
James Pustejovsky, Ken Lai and Nianwen Xue

10:30–11:00  Coffee break

11:00–12:40  Session B: invited talk + oral presentations
Thursday, August 1, 2019 (continued)

11:00–11:40 Invited Talk: "Compositional semantic parsing across graphbanks", by Alexander Koller

11:40–12:00 Parsing Meaning Representations: Is Easier Always Better?
Zi Lin and Nianwen Xue

12:00–12:20 GKR: Bridging the Gap between Symbolic/structural and Distributional Meaning Representations
Aikaterini-Lida Kalouli, Richard Crouch and Valeria dePaiva

12:20–12:40 Generating Discourse Inferences from Unscoped Episodic Logical Formulas
Gene Kim, Benjamin Kane, Viet Duong, Muskaan Mendiratta, Graeme McGuire, Sophie Sackstein, Georgiy Platonov and Lenhart Schubert

12:40–14:10 Lunch

14:10–15:50 Session C: Invited talk and poster session


14:50–15:50 Poster session

A Plea for Information Structure as a Part of Meaning Representation
Eva Hajicova
TCL - a Lexicon of Turkish Discourse Connectives
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Meta-Semantic Representation for Early Detection of Alzheimer’s Disease
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Susan Windisch Brown, Julia Bonn, James Gung, Annie Zaenen, James Pustejovsky and Martha Palmer
Thursday, August 1, 2019 (continued)

15:50–16:20  Coffee break

16:20–18:00  Session D: Oral presentations + panel discussion

16:20–16:40  Semantically Constrained Multilayer Annotation: The Case of Coreference
Jakob Prange, Nathan Schneider and Omri Abend

16:40–16:50  Towards Universal Semantic Representation
Huaiyu Zhu, Yunyao Li and Laura Chiticariu

16:50–17:10  A Dependency Structure Annotation for Modality
Meagan Vigus, Jens E. L. Van Gysel and William Croft

Claire Bonial, Lucia Donatelli, Stephanie M. Lukin, Stephen Tratz, Ron Artstein,
David Traum and Clare Voss

17:20–18:00  Panel Discussion on how to represent tense, aspect and modality. Panelists:
Lucia Donatelli, Yunyao Li, Meagan Vigus, and others