NAACL HLT 2019

Lexical and Computational Semantics (*SEM)

Proceedings of the Eighth Conference

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Introduction

Preface by the General Chair and Program Chairs

Welcome to *SEM, the Joint Conference on Lexical and Computational Semantics! Now at its eighth edition, *SEM brings together research on all aspects of semantics, including semantic representations, semantic processing, theoretical semantics, multilingual semantics, and several others. Over the past few years, the increased interest we have witnessed in field of natural language processing has also resulted in an increased interest in semantics, and *SEM has become the main forum to present and discuss the most recent advances in this research area.

We are pleased to present this volume containing the papers accepted at *SEM 2019, co-located with NAACL in Minneapolis, USA, on June 6-7, 2019. Similar to the last edition, *SEM received a high number of submissions, which allowed us to compile a diverse and high-quality program. We received a total of 96 submissions. Out of these, 32 papers were accepted (19 long, 13 short), for an overall acceptance rate of 33%.

Submissions were reviewed in nine different areas:

- Lexical semantics and word representations
- Semantic composition and sentence representations
- Discourse, dialogue and generation
- Machine learning for semantic tasks
- Multilinguality
- Human semantic processing
- Theoretical and formal semantics
- Semantics in NLP applications
- Resources and evaluations

The papers were evaluated by a program committee consisting of 16 area chairs, assisted by a panel of 332 reviewers. Each submission was reviewed by three reviewers, who were furthermore encouraged to discuss any divergence in evaluations. The papers in each area were subsequently ranked by the area chairs. The final selection was made by the program co-chairs after an independent check of all the reviews and discussion with the area chairs. Reviewers' recommendations were also used to shortlist a set of papers nominated for the Best Paper Award.

The final *SEM 2019 program features 16 oral presentations and 16 posters. We are also very excited to have two excellent keynote speakers: Sam Bowman (New York University, joint keynote with SemEval 2019), who will talk about "Task-Independent Sentence Understanding"; and Ellen Riloff (University of Utah), who will discuss her work on "Identifying Affective Events and the Reasons for their Polarity."

We are deeply thankful to all area chairs and reviewers for their help in the selection of the program, for their readiness in engaging in thoughtful discussions about individual papers, and for providing valuable feedback to the authors.

We are grateful to Soujanya Poria for his help in publicizing the conference, and to Kilian Evang for his dedication and thoroughness in turning the program into the proceedings you now have before your eyes. We would also like to thank Priscilla Rasmussen, for all the help she has provided with all our organizational aspects.

We hope you will enjoy the conference, and you will find it inspiring and stimulating!

Ekaterina Shutova and Lun-Wei Ku, Program Co-Chairs
Rada Mihalcea, General Chair

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Invited Talk: Identifying Affective Events and the Reasons for their Polarity

Ellen Riloff
University of Utah, USA

Abstract: Recognizing affective states is essential for narrative text understanding and for applications such as conversational dialogue, summarization, and sarcasm recognition. Many tools have been developed to recognize explicit expressions of sentiment, but affective states can also be inferred from events. This talk will focus on "affective events", which are generally desirable or undesirable experiences that implicitly suggest an affective state for the experiencer. For example, buying a home is usually desirable and associated with a positive affective state, but being laid off is undesirable and associated with a negative state. First, we will describe a weakly supervised learning method to induce affective events from a text corpus by optimizing for semantic consistency. Second, we aim to characterize affective events based on Human Needs Categories, which often explain people's motivations, goals, and desires. We will present a co-training model for Human Needs categorization that uses an event expression classifier and an event context classifier to learn from both labeled and unlabeled texts.

Bio: Ellen Riloff is a Professor in the School of Computing at the University of Utah. Her primary research area is natural language processing, with an emphasis on information extraction, affective text analysis, semantic class induction, and bootstrapping methods that learn from unannotated texts. Prof. Riloff has served as the General Chair for the EMNLP 2018 conference, Program Co-Chair for the NAACL HLT 2012 and CoNLL 2004 conferences, on the NAACL Executive Board for 2004-2005 and 2017-2018, the Computational Linguistics Editorial Board, and the Transactions of the Association for Computational Linguistics (TACL) Editorial Board. In 2018, Prof. Riloff was named a Fellow of the Association for Computational Linguistics (ACL).

Invited Talk: Task-Independent Sentence Understanding

Sam Bowman
New York University, USA

Abstract: This talk deals with the goal of task-independent language understanding: building machine learning models that can learn to do most of the hard work of language understanding before they see a single example of the language understanding task they're meant to solve, in service of making the best of modern NLP systems both better and more data-efficient. I'll survey the (dramatic!) progress that the NLP research community has made toward this goal in the last year. In particular, I'll dwell on GLUE—an open-ended shared task competition that measures progress toward this goal for sentence understanding tasks—and I'll preview a few recent and forthcoming analysis papers that attempt to offer a bit of perspective on this recent progress.

Bio: Sam Bowman has been on the faculty at NYU since 2016, when he finished his PhD with Chris Manning and Chris Potts at Stanford. At NYU, he is a core member of the new school-level Data Science unit, which focuses on machine learning, and a co-PI of the CILVR machine learning lab. Prof. Bowman's research focuses on data, evaluation techniques, and modeling techniques for sentence understanding in natural language processing, and on applications of machine learning to scientific questions in linguistic syntax and semantics. He is an area chair for *SEM 2018, ICLR 2019, and NAACL 2019; he organized a twenty-three person team at JSALT 2018 and earned a 2015 EMNLP Best Resource Paper Award and a 2017 Google Faculty Research Award.

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