## NAACL HLT 2019

# NeuralGen Workshop: Methods for Optimizing and Evaluating Neural Language Generation

**Proceedings of the First Workshop** 

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### Introduction

NeuralGen is the first workshop on Methods for Optimizing and Evaluating Neural Language Generation, being held at NAACL 2019 in Minneapolis, Minnesota. The goal of this workshop is to discuss new frontiers for language generation that address some of the recurring problems in existing techniques (eg. bland, repetitive language). More specifically, this workshop is aimed at sharing novel modeling techniques that go beyond maximum likelihood training, new techniques for robust evaluation and interpretation of model output, and strategies for generalization of generation systems.

We are pleased to have received 42 submissions, covering a wide range of topics related to modeling, evaluation and analysis of novel generation systems. 17 of the submissions have been accepted into the final program (approximately 40% acceptance rate). The workshop schedule includes 11 archival papers and 17 poster presentations. We are also thankful to have seven invited speakers: Kyunghyun Cho, He He, Graham Neubig, Yejin Choi, Alexander Rush, Tatsunori Hashimoto, and Hal Daumé III. The workshop also includes a panel discussion from the speakers and spotlight talks for a selection of accepted papers.

We would like to thank our invited speakers, authors, and reviewers for contributing to our program. Additionally, we would like to express gratitude to our sponsors, who have been generous in supporting the workshop.

Antoine Bosselut, Asli Celikyilmaz, Srinivasan Iyer, Marjan Ghazvininejad, Urvashi Khandelwal, Hannah Rashkin, Thomas Wolf

#### **Organizers:**

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### **Invited Speakers:**

Kyunghyun Cho, New York University and Facebook AI Research Yejin Choi, University of Washington and Allen Institute for AI Hal Daumé III, University of Maryland and Microsoft Research Tatsunori Hashimoto, Stanford University He He, New York University and Amazon Web Services Graham Neubig, Carnegie Mellon University Alexander Rush, Harvard University

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### **Conference Program**

Thursday, June 6, 2019

- 9:00–9:10 Opening Remarks
- 9:10–9:45 Invited Talk: Kyunghyun Cho
- 9:45–10:20 Invited Talk: He He
- 10:20–10:35 Coffee Break
- 10:35–11:10 Invited Talk: Graham Neubig
- 11:10–11:45 Invited Talk: Yejin Choi
- 11:45–13:15 Lunch
- 13:15–13:50 Invited Talk: Alexander Rush
- 13:50–14:15 Spotlight Talks

### 14:15–15:45 Poster Session

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*DAL: Dual Adversarial Learning for Dialogue Generation* Shaobo Cui, Rongzhong Lian, Di Jiang, Yuanfeng Song, Siqi Bao and Yong Jiang

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BERT has a Mouth, and It Must Speak: BERT as a Markov Random Field Language Model

Alex Wang and Kyunghyun Cho

*Neural Text Simplification in Low-Resource Conditions Using Weak Supervision* Alessio Palmero Aprosio, Sara Tonelli, Marco Turchi, Matteo Negri and Mattia A. Di Gangi

Paraphrase Generation for Semi-Supervised Learning in NLU Eunah Cho, He Xie and William M. Campbell

#### Bilingual-GAN: A Step Towards Parallel Text Generation

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*Designing a Symbolic Intermediate Representation for Neural Surface Realization* Henry Elder, Jennifer Foster, James Barry and Alexander O'Connor

Insertion-based Decoding with automatically Inferred Generation Order Jiatao Gu, Qi Liu and Kyunghyun Cho

*Neural Text Style Transfer via Denoising and Reranking* Joseph Lee, Ziang Xie, Cindy Wang, Max Drach, Dan Jurafsky and Andrew Ng

Generating Diverse Story Continuations with Controllable Semantics Lifu Tu, Xiaoan Ding, Dong Yu and Kevin Gimpel

### Better Automatic Evaluation of Open-Domain Dialogue Systems with Contextualized Embeddings

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Improved Zero-shot Neural Machine Translation via Ignoring Spurious Correlations

Jiatao Gu, Yong Wang, Kyunghyun Cho and Victor O.K. Li

### Thursday, June 6, 2019 (continued)

*Jointly Measuring Diversity and Quality in Text Generation Models* Danial Alihosseini, Ehsan Montahaei and Mahdieh Soleymani Baghshah

### 15:45–16:20 Invited Talk: Tatsunori Hashimoto

- 16:20–16:55 Invited Talk: Hal Daumé III
- 16:55-17:55 Panel
- 17:55–18:00 Closing Remarks