Introduction

Welcome to the ACL 2020 Workshop on NLP for Conversational AI.

Ever since the invention of the intelligent machine, hundreds and thousands of mathematicians, linguists, and computer scientists have dedicated their career to empowering human-machine communication in natural language. Although the idea is finally around the corner with a proliferation of virtual personal assistants such as Siri, Alexa, Google Assistant, and Cortana, the development of these conversational agents remains difficult and there still remain plenty of unanswered questions and challenges.

Conversational AI is hard because it is an interdisciplinary subject. Initiatives were started in different research communities, from Dialogue State Tracking Challenges to NIPS Conversational Intelligence Challenge live competition and the Amazon Alexa prize. However, various fields within the NLP community, such as semantic parsing, coreference resolution, sentiment analysis, question answering, and machine reading comprehension etc. have been seldom evaluated or applied in the context of conversational AI.

The goal of this workshop is to bring together NLP researchers and practitioners in different fields, alongside experts in speech and machine learning, to discuss the current state-of-the-art and new approaches, to share insights and challenges, to bridge the gap between academic research and real-world product deployment, and to shed the light on future directions. “NLP for Conversational AI” will be a one-day workshop including keynotes, spotlight talks, posters, and panel sessions. In keynote talks, senior technical leaders from industry and academia will share insights on the latest developments of the field. An open call for papers will be announced to encourage researchers and students to share their prospects and latest discoveries. The panel discussion will focus on the challenges, future directions of conversational AI research, bridging the gap in research and industrial practice, as well as audience-suggested topics.

With the increasing trend of conversational AI, NLP4ConvAI 2020 is competitive. We received 27 submissions, and after a rigorous review process, we only accept 15. There are total 13 accepted regular workshop papers and 2 cross-submissions or extended abstracts. The workshop overall acceptance rate is about 55.5%. We hope you will enjoy NLP4ConvAI 2020 at ACL and contribute to the future success of our community!

NLPConvAI 2020 Organizers
Tsung-Hsien Wen, PolyAI
Asli Celikyilmaz, Microsoft
Zhou Yu, UC Davis
Alexandros Papangelis, Uber AI
Mihail Eric, Amazon Alexa AI
Anuj Kumar, Facebook
Iñigo Casanueva, PolyAI
Rushin Shah, Google
Organizers:
Tsung-Hsien Wen, PolyAI (UK)
Asli Celikyilmaz, Microsoft (USA)
Zhou Yu, UC Davis (USA)
Alexandros Papangelis, Uber AI (USA)
Mihail Eric, Amazon Alexa AI (USA)
Anuj Kumar, Facebook (USA)
Iñigo Casanueva, PolyAI (UK)
Rushin Shah, Google (USA)

Program Committee:
Pawel Budzianowski, University of Cambridge and PolyAI
Sam Coope, PolyAI
Ondřej Dušek, Heriot Watt University
Nina Dethlefs, University of Hull
Daniela Gerz, PolyAI
Pei-Hao Su, PolyAI
Matthew Henderson, PolyAI
Simon Keizer, AI Lab, Vrije Universiteit Brussel
Ryan Lowe, McGill University
Julien Perez, Naver Labs
Marek Rei, Imperial
Gokhan Tür, Uber AI
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Alborz Geramifard, Facebook
Shane Moon, Facebook
Jinfeng Rao, Facebook
Bing Liu, Facebook
Pararth Shah, Facebook
Ahmed Mohamed, Facebook
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Shachi Paul, Google
Seokhwan Kim, Amazon
Andrea Madotto, HKUST
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Piero Molino, Uber
Chandra Khatri, Uber
Yi-Chia Wang, Uber
Huaixiu Zheng, Uber
Fei Tao, Uber
Abhinav Rastogi, Google
Stefan Ultes, Daimler
José Lopes, Heriot Watt University
Behnam Hedayatnia, Amazon
Dilek Hakkani-Tür, Amazon
Ta-Chung Chi, CMU
Shang-Yu Su, NTU
Pierre Lison, NR
Ethan Selfridge, Interactions
Teruhisa Misu, HRI
Svetlana Stoyanchev, Toshiba
Ryuichiro Higashinaka, NTT
Hendrik Bushmeier, University of Bielefeld
Kai Yu, Baidu
Koichiro Yoshino, NAIST
Abigail See, Stanford University
Ming Sun, Amazon Alexa AI

Invited Speakers:

Yun-Nung Chen, National Taiwan University
Dilek Hakkani-Tür, Amazon Alexa AI
Jesse Thomason, University of Washington
Antoine Bordes, Facebook AI Research
Jacob Andreas, Massachusetts Institute of Technology
Jason Williams, Apple
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<td>06:00</td>
<td><strong>Opening Remarks</strong></td>
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<tr>
<td>06:10</td>
<td><em>Invited Talk</em></td>
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<td>Yun-Nung Chen</td>
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<td>06:40</td>
<td><em>Invited Talk</em></td>
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<td>Antonie Bordes</td>
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<tr>
<td>07:10</td>
<td><em>Invited Talk</em></td>
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<td>Jacob Andreas</td>
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<td>08:20</td>
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<td>Inigo Casanueva, Tadas Temčinas, Daniela Gerz, Matthew Henderson and Ivan Vulić</td>
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09:00  Panel

10:00  Invited Talk
Jesse Thomason

10:30  Invited Talk
Dilek Hakkani-Tür

11:00  Invited Talk
Jason Williams

11:30  Automating Template Creation for Ranking-Based Dialogue Models
Jingxiang Chen, Heba Elfardy, Simi Wang, Andrea Kahn and Jared Kramer

11:40  From Machine Reading Comprehension to Dialogue State Tracking: Bridging the Gap
Shuyang Gao, Sanchit Agarwal, Di Jin, Tagyoung Chung and Dilek Hakkani-Tür

11:50  Improving Slot Filling by Utilizing Contextual Information
Amir Pouran Ben Veyseh, Franck Dernoncourt and Thien Huu Nguyen

12:00  Learning to Classify Intents and Slot Labels Given a Handful of Examples
Jason Krone, Yi Zhang and Mona Diab

12:10  MultiWOZ 2.2: A Dialogue Dataset with Additional Annotation Corrections and State Tracking Baselines
Xiaoxue Zang, Abhinav Rastogi and Jindong Chen

Michael Shum, Stephan Zheng, Wojciech Kryscinski, Caiming Xiong and Richard Socher

12:30  Probing Neural Dialog Models for Conversational Understanding
Abdelrhman Saleh, Tovly Deutsch, Stephen Casper, Yonatan Belinkov and Stuart Shieber

12:40  Closing Remarks