2020

July 1-3, 2020

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Introduction

We are excited to welcome you to SIGDIAL 2020, the 21st Annual Meeting of the Special Interest Group on Discourse and Dialogue. This year the conference is being held virtually, on July 1-3, 2020, with the Satellite Event YRRSDS 2020 (Young Researchers' Roundtable on Spoken Dialog Systems) and just before ACL 2020 that will take place also virtually July 5-10, 2020.

The SIGDIAL conference is a premier publication venue for research in discourse and dialogue. This year, the program includes three keynote talks, nine presentation sessions, three demo sessions, and a special session entitled "Situated Dialogue with Virtual Agents and Robots (RoboDial 2.0)" organized by Jose David Lopes, Stephanie Lukin, Matthew Marge, Vikram Ramanarayanan, Matthias Scheutz, Casey Kennington, and Cynthia Matuszek.

We received 104 submissions this year, which comprised 62 long papers, 32 short papers and 10 demo descriptions. This year, for the first time, we had 8 Senior Program Committee (SPC) members who were responsible for a set of 10-15 papers each, guiding the discussion process and writing a meta-review. Every submission was assigned to one SPC and received at least three reviews. When making our selections for the program, we carefully considered the reviews, meta-reviews and the comments made during the discussions among reviewers. The members of the Senior Program Committee and Program Committee did an excellent job in reviewing the submitted papers, and we thank them for their essential role in selecting the accepted papers and helping produce a high quality program for the conference. In line with the SIGDIAL tradition, our aim has been to create a balanced program that accommodates as many favorably rated papers as possible. We accepted 41 papers: 23 long papers, 10 short papers, and 8 demo descriptions. These numbers give an overall acceptance rate of 39%. The acceptance rate for long papers (37%) and short papers (31%) remains in line with the acceptance rate from last year.

Each of the three conference days features one keynote and several oral sessions, with the remaining time given to demos, special session and sponsor sessions. In organizing the virtual conference, we decided to keep as much as possible the spirit of an in person conference. All keynotes, talks and demos are pre-recorded and made available at the beginning of the conference for participants to watch asynchronously. The long and short papers are organized in thematic sessions and take into consideration the speakers' different time zones. The sessions contain 3-4 pre-recorded talks followed by a Live QA part with the presenters. For demos, we organized Live Question Answering sessions with the demo presenters. Topic-wise, we have papers on evaluation and corpora, natural language generation, task oriented dialogues, knowledge use and acquisition, behaviour modeling, dialogue policy and dialogue state tracking, modeling convergence in dialogues, and the semantics and pragmatics of discourse and dialogue.

A conference of this scale requires advice, help and enthusiastic participation of many parties, and we have a big 'thank you' to say to all of them. Regarding the program, we thank our three keynote speakers, Asli Celikyilmaz (Microsoft Research), Diane Litman (University of Pittsburgh) and Gabriel Skantze (KTH Royal Institute of Technologies), for their inspiring talks on "Neural text Generation: Progress and Challenges", "Argument Mining, Discourse Analysis, and Educational Applications" and "Conversational Turn-taking in Human-robot Interaction". We also thank the organizers of the special session on Situated Dialogue with Virtual Agents and Robots (RoboDial 2.0). We are grateful for their smooth and efficient coordination with the main conference.

We extend special thanks to our Local Chair, Casey Kennington, for handling the situation of adapting to a virtual conference. SIGDIAL 2020 would not have been possible without his effort in arranging the virtual platform, handling registration, numerous preparations for the conference, and last but not least, Casey's personal contributions, which exceeded those of a local organizer. We also thank the virtual presentation co-chairs, Koji Inoue and Erik Ekstedt, for helping the authors with their video presentations, arranging for the video streaming during the conference and hosting the Zoom Live QAs sessions.

David Vandyke, our Sponsorship Chair, has conducted the massive task of recruiting and liaising with our conference sponsors, many of whom continue to contribute year after year. We thank David for his

dedicated work and his assistance with conference planning. We gratefully acknowledge the support of our sponsors: (Gold level) Apple and Rasa Technologies and (Silver level) Toshiba Research Europe and Honda Research Institute.
In addition, we thank Nina Dethlefs, Mentoring Chair for SIGDIAL 2020, for her dedicated work on the mentoring process. The goal of mentoring is to assist authors of papers that contain important ideas but require significant stylistic modifications, and we thank our mentoring team for their excellent support of the authors; and Stefan Ultes, our publication chair, capped the long organizational process by putting together these high quality conference proceedings.
We thank the SIGdial board, both current and emeritus officers, Gabriel Skantze, Mikio Nakano, Vikram Ramanarayanan, Ethan Selfridge, Jason Williams and Amanda Stent, for their advice and support from beginning to end.
We once again thank our senior program committee members (Dilek Hakkani-Tur, Annie Louis, Mikio Nakano, Rebecca J. Passonneau, Gabriel Skantze, Manfred Stede, David Traum, Koichiro Yoshino) and program committee members for committing their time to help us select an excellent technical program.
Finally, we thank all the authors who submitted to the conference and all conference participants for making SIGDIAL 2020 a success and for growing the research areas of discourse and dialogue with their fine work.
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Smaranda Muresan and Yun-Nung (Vivian) Chen, Program Co-Chairs

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Keynote Talk: Invited 1

Abstract: The open exchange of ideas, the freedom of thought and expression, and respectful scientific debate are central to the aims and goals of a ACL conference. These require a community and an environment that recognizes the inherent worth of every person and group, that fosters dignity, understanding, and mutual respect, and that embraces diversity. For these reasons, ACL is dedicated to providing a harassment-free experience for participants at our events and in our programs. Harassment and hostile behavior are unwelcome at any ACL conference. This includes: speech or be- havior (including in public presentations and on-line discourse) that intimidates, creates discomfort, or interferes with a person's participation or opportunity for participation in the conference. We aim for ACL conferences to be an environment where harassment in any form does not happen, including but not lim- ited to: harassment based on race, gender, religion, age, color, national origin, ancestry, disability, sexual orientation, or gender identity. Harassment includes degrading verbal comments, deliberate intimidation, stalking, harassing photography or recording, inappropriate physical contact, and unwelcome sexual at- tention. It is the responsibility of the community as a whole to promote an inclusive and positive environment for our scholarly activities. In addition, any participant who experiences harassment or hostile behavior may contact any current member of the ACL Board or contact Priscilla Rasmussen, who is usually available at the registration desk of the conference. Please be assured that if you approach us, your concerns will be kept in strict confidence, and we will consult with you on any actions taken. The ACL board members are listed at: https://www.aclweb.org/portal/about The full policy and its implementation is defined at: https://www.aclweb.org/adminwiki/index.php?title=AntiHarassment_Policy

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Keynote Talk: Invited 2

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Program

Wednesday, July 1, 2020

07:30 - 07:45 *Opening Remarks*

09:00 - 09:30 *Break*

09:30 - 10:20 *Generation + Task-Oriented Dialogues (1)*

Semantic Guidance of Dialogue Generation with Reinforcement Learning
Cheng-Hsun Hsueh and Wei-Yun Ma

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TripPy: A Triple Copy Strategy for Value Independent Neural Dialog State Tracking
Michael Heck, Carel van Niekerk, Nurul Lubis, Christian Geishauser, Hsien-Chin Lin, Marco Moresi and Milica Gasic

10:20 - 10:45 *Generation + Task-Oriented Dialogues (1) live QA*

10:45 - 11:30 *Demo (1) pre-recorded presentations + live QA*

Conversational Agents for Intelligent Buildings
Weronika Sieińska, Christian Dondrup, Nancie Gunson and Oliver Lemon

Retico: An incremental framework for spoken dialogue systems
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MC-Saar-Instruct: a Platform for Minecraft Instruction Giving Agents
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ConvoKit: A Toolkit for the Analysis of Conversations
Jonathan P. Chang, Caleb Chiam, Liye Fu, Andrew Wang, Justine Zhang and Cristian Danescu-Niculescu-Mizil

11:30 - 11:50 *Break*

Wednesday, July 1, 2020 (continued)

11:50 - 12:20 *Knowledge Acquisition/Use and Behaviour Modeling (1)*

Commonsense Evidence Generation and Injection in Reading Comprehension
Ye Liu, Tao Yang, Zeyu You, Wei Fan and Philip S. Yu

Identifying Collaborative Conversations using Latent Discourse Behaviors
Ayush Jain, Maria Pacheco, Steven Lancette, Mahak Goindani and Dan Goldwasser

A Case Study of User Communication Styles with Customer Service Agents versus Intelligent Virtual Agents
Timothy Hewitt and Ian Beaver

12:20 - 12:40 *Knowledge Acquisition/Use and Behaviour Modeling (1) live QA*

12:40 - 15:30 *Breakout Discussion Sessions*

15:30 - 16:00 *Break*

16:00 - 17:00 *Special Session: Greetings and Talks*

It's About Time: Turn-Entry Timing For Situated Human-Robot Dialogue
Felix Gervits, Ravenna Thielstrom, Antonio Roque and Matthias Scheutz

Learning Word Groundings from Humans Facilitated by Robot Emotional Displays
David McNeill and Casey Kennington

Learning and Reasoning for Robot Dialog and Navigation Tasks
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An Attentive Listening System with Android ERICA: Comparison of Autonomous and WOZ Interactions
Koji Inoue, Divesh Lala, Kenta Yamamoto, Shizuka Nakamura, Katsuya Takanashi and Tatsuya Kawahara

17:00 - 17:30 *Demo (2) pre-recorded presentations + live QA*

A Spoken Dialogue System for Spatial Question Answering in a Physical Blocks World
Georgiy Platonov, Lenhart Schubert, Benjamin Kane and Aaron Gindi

Wednesday, July 1, 2020 (continued)

rrSDS: Towards a Robot-ready Spoken Dialogue System
Casey Kennington, Daniele Moro, Lucas Marchand, Jake Carns and David McNeill

17:30 - 18:15 *Special Session: live QA*

18:15 - 19:15 *Special Session: Late-breaking*

19:15 - 19:30 *Break*

19:30 - 20:15 *Breakouts Discussion Sessions*

Thursday, July 2, 2020

05:00 - 05:35 *Knowledge Acquisition/Use and Behaviour Modeling (2)*

Discovering Knowledge Graph Schema from Short Natural Language Text via Dialog
Subhasis Ghosh, Arpita Kundu, Aniket Pramanick and Indrajit Bhattacharya

User Impressions of Questions to Acquire Lexical Knowledge
Kazunori Komatani and Mikio Nakano

Simulating Turn-Taking in Conversations with Delayed Transmission
Thilo Michael and Sebastian Möller

05:35 - 06:00 *Knowledge Acquisition/Use and Behaviour Modeling (2) live QA*

06:00 - 06:45 *Semantic and Pragmatics Modeling*

Is this Dialogue Coherent? Learning from Dialogue Acts and Entities
Alessandra Cervone and Giuseppe Riccardi

Analyzing Speaker Strategy in Referential Communication
Brian McMahan and Matthew Stone

Contextualized Emotion Recognition in Conversation as Sequence Tagging
Yan Wang, Jiayu Zhang, Jun Ma, Shaojun Wang and Jing Xiao

How Self-Attention Improves Rare Class Performance in a Question-Answering Dialogue Agent
Adam Stiff, Qi Song and Eric Fosler-Lussier

06:45 - 07:10 *Semantic and Pragmatics Modeling live QA*

07:10 - 07:30 *Break*

07:30 - 08:00 *Modeling Convergence*

Filtering conversations through dialogue acts labels for improving corpus-based convergence studies
Simone Fuscone, Benoit Favre and Laurent Prévot

Thursday, July 2, 2020 (continued)

Nontrivial Lexical Convergence in a Geography-Themed Game
Amanda Bergqvist, Ramesh Manuvinakurike, Deepthi Karkada and Maike Paetzel

A unifying framework for modeling acoustic/prosodic entrainment: definition and evaluation on two large corpora
Ramiro H. Gálvez, Lara Gauder, Jordi Luque and Agustín Gravano

08:00 - 08:20 *Modeling Convergence live QA*

08:20 - 08:45 *Break*

08:45 - 09:30 *Sponsor Booth*

09:30 - 10:15 *Breakout Discussion Sessions*

10:15 - 10:45 *Break*

10:45 - 11:25 *Evaluation + Corpora (1)*

Unsupervised Evaluation of Interactive Dialog with DialoGPT
Shikib Mehri and Maxine Eskenazi

Towards Unified Dialogue System Evaluation: A Comprehensive Analysis of Current Evaluation Protocols
Sarah E. Finch and Jinho D. Choi

Human-Human Health Coaching via Text Messages: Corpus, Annotation, and Analysis
Itika Gupta, Barbara Di Eugenio, Brian Ziebart, Aiswarya Baiju, Bing Liu, Ben Gerber, Lisa Sharp, Nadia Nabulsi and Mary Smart

11:25 - 11:50 *Evaluation + Corpora (1) live QA*

11:50 - 12:30 *Break*

12:30 - 13:00 *Demo (3) pre-recorded presentations + live QA*

Agent-Based Dynamic Collaboration Support in a Smart Office Space
Yansen Wang, R. Charles Murray, Haogang Bao and Carolyn Rose

Thursday, July 2, 2020 (continued)

Emora STDM: A Versatile Framework for Innovative Dialogue System Development
James D. Finch and Jinho D. Choi

13:00 - 16:30 *Breakout Discussion Sessions*

16:30 - 17:00 *Break*

18:35 - 19:15 *Generation + Task-Oriented Dialogues (2)*

Boosting Naturalness of Language in Task-oriented Dialogues via Adversarial Training
Chenguang Zhu

A Sequence-to-sequence Approach for Numerical Slot-filling Dialog Systems
Hongjie Shi

Beyond Domain APIs: Task-oriented Conversational Modeling with Unstructured Knowledge Access
Seokhwan Kim, Mihail Eric, Karthik Gopalakrishnan, Behnam Hedayatnia, Yang Liu and Dilek Hakkani-Tur

Multi-Action Dialog Policy Learning with Interactive Human Teaching
Megha Jhunjhunwala, Caleb Bryant and Pararth Shah

19:15 - 19:40 *Generation + Task-Oriented Dialogues (2) live QA*

Friday, July 3, 2020

05:30 - 06:05 *Evaluation + Corpora (2)*

Is Your Goal-Oriented Dialog Model Performing Really Well? Empirical Analysis of System-wise Evaluation
Ryuichi Takanobu, Qi Zhu, Jinchao Li, Baolin Peng, Jianfeng Gao and Minlie Huang

Similarity Scoring for Dialogue Behaviour Comparison
Stefan Ultes and Wolfgang Maier

Collection and Analysis of Dialogues Provided by Two Speakers Acting as One
Tsunehiro Arimoto, Ryuichiro Higashinaka, Kou Tanaka, Takahito Kawanishi, Hiroaki Sugiyama, Hiroshi Sawada and Hiroshi Ishiguro

06:05 - 06:30 *Evaluation + Corpora (2) live QA*

06:30 - 06:55 *Dialogue Policy*

Adaptive Dialog Policy Learning with Hindsight and User Modeling
Yan Cao, Keting Lu, Xiaoping Chen and Shiqi Zhang

Dialogue Policies for Learning Board Games through Multimodal Communication
Maryam Zare, Ali Ayub, Aishan Liu, Sweekar Sudhakara, Alan Wagner and Rebecca Passonneau

06:55 - 07:10 *Dialogue Policy live QA*

07:10 - 07:30 *Break*

08:45 - 09:45 *Business Meeting, Awards, Closing (live)*