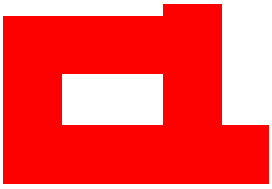
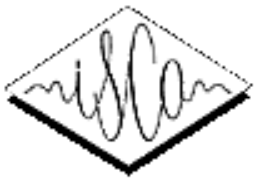
SIGDIAL 2018

19th Annual Meeting of the Special Interest Group on Discourse and Dialogue





Proceedings of the Conference

12-14 July 2018
Melbourne, Australia

In cooperation with:
Association for Computational Linguistics (ACL)
International Speech Communication Association (ISCA)
Association for the Advancement of Artificial Intelligence (AAAI)

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Introduction

We are excited to welcome you to this year's SIGdial Conference, the 19th Annual Meeting of the Special Interest Group on Discourse and Dialogue. We are pleased to hold the conference in Melbourne, Australia, on July 12-14th, in close proximity to both ACL 2018 (the 56th Annual Meeting of the Association for Computational Linguistics) and YRRSDS 2018 (the 14th Young Researchers' Roundtable on Spoken Dialogue Systems).

The SIGdial conference remains a premier publication venue for research in discourse and dialogue. This year, the program includes 3 keynote talks, 5 oral presentation sessions, 3 poster sessions including 1 demo session, and a special session entitled "Physically Situated Dialogue."

We received 111 submissions this year, almost identical to the 113 received in 2017 (which was the 2nd largest number of submissions to SIGdial in its history). Of the 111 submissions, there were 67 long papers, 39 short papers, and 5 demo papers. All submissions received at least 3 reviews. We carefully considered both the numeric ratings and the tenor of the comments, both as written in the reviews and as submitted in discussions, in making our selections for the program. Overall, the members of the Program Committee did an excellent job in reviewing the submitted papers. We thank them for their important role in selecting the accepted papers and for helping to come up with 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 52 papers: 36 long papers, 12 short papers, and 4 demo papers. These numbers give an overall acceptance rate of 47%. The rates separately for types of papers are 54% for long papers, 31% for short papers, and 80% for demo papers. After acceptance, 3 papers (2 long and 1 demo) that had also been submitted to other conferences were withdrawn. Of the long papers, 19 were presented as oral presentations. The remaining long papers and all the short papers were presented as posters, split across three poster sessions.

This year SIGdial has a special session on the topic "Physically Situated Dialogue", organized by Sean Andrist, Stephanie Lukin, Matthew Marge, Jesse Thomason, and Zhou Yu. The special session brings diverse paper submissions on a topic of growing interest to our technical program, with 7 of the accepted long papers part of this special session. The special session also features a panel discussion and late-breaking presentations, allowing for active engagement of the conference participants.

This year's SIGdial conference runs 3 full days, following the precedent set in 2017. One keynote and one poster session is held each day, with the remaining time given to oral presentations, demos, and the special session.

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, Mari Ostendorf (University of Washington, USA), Ingrid Zukerman (Monash University, Australia), and Milica Gasic (University of Cambridge) for their inspiring talks on socialbots, interpretation in physical settings, and machine learning techniques, which cover many modern aspects of research in both discourse and dialogue. We also thank the organizers of the special session who designed the schedule for their accepted papers, and organized the session with a panel and late-breaking presentations at the venue. We are grateful for their smooth and efficient coordination with the main conference. We in addition thank Alex Papangelis, Mentoring Chair for SIGdial 2018, for his dedicated work on the mentoring process. The goal of mentoring is to assist authors of papers that contain important ideas but lack clarity. In total, 6 of the accepted papers received mentoring and we would like to thank our mentoring team for their excellent advice and support to the respective authors.

We extend special thanks to our Local Chair, Lawrence Cavedon, and his team. SIGdial 2018 would not have been possible without their effort in arranging the conference venue and accommodations, handling registration, making banquet arrangements, and numerous preparations for the conference. The student volunteers for on-site assistance also deserve our sincere appreciation.

Mikio Nakano, 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. Sponsorships support valuable aspects of the program, such as lunches, coffees and the conference banquet. We thank him for his dedicated work and coordination in conference planning. We gratefully acknowledge the support of our sponsors: (Platinum level) Honda Research Institute Japan, Interactions, and Microsoft Research; (Gold level) Adobe Research, Amazon, Apple, and Nextremer; (Silver level) Educational Testing Service (ETS) and Tricom (Beijing) Technology; (Bronze level) Monash University, PolyAI, and Toshiba Research Europe. We also thank RMIT University for their generous sponsorship as host.

We thank the SIGdial board, especially current and emeritus officers Kallirroi Georgila, Vikram Ramanarayanan, Ethan Selfridge, Amanda Stent, and Jason Williams, for their advice and support from beginning to end. We also thank Priscilla Rasmussen at the ACL for tirelessly handling the financial aspects of sponsorship for SIGdial 2018, and for securing our ISBN.

We once again thank our program committee members for committing their time to help us select a superb technical program. Finally, we thank all the authors who submitted to the conference and all the conference participants for making SIGdial 2018 a grand success and for growing the research areas of discourse and dialogue with their fine work.

Kazunori Komatani
General Chair

Diane Litman and Kai Yu
Program Co-Chairs

SIGDIAL 2018

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Jian Zhang, Dongguan University of Technology; Hong Kong University of Science and Technology, China
Ming Zhou, Microsoft Research Asia, China

Mentors:

Dimitrios Alikaniotis, Grammarly, USA
Hendrik Buschmeier, Bielefeld University, Germany
Helen Hastie, Heriot-Watt University, UK
Shereen Oraby, University of California Santa Cruz, USA
Stefan Ultes, University of Cambridge, UK
David Vandyke, Apple, UK

Invited Speakers:

Milica Gasic, University of Cambridge, UK
Mari Ostendorf, University of Washington, USA
Ingrid Zukerman, Monash University, Australia

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July 12

09:00–09:30 *Welcome session and Introduction*

09:30–10:30 *Keynote 1*
Mari Ostendorf

10:30–11:00 ***Coffee Break***

11:00–12:15 **Oral 1 - Generation1**

Zero-Shot Dialog Generation with Cross-Domain Latent Actions
Tiancheng Zhao and Maxine Eskenazi

Changing the Level of Directness in Dialogue using Dialogue Vector Models and Recurrent Neural Networks
Louisa Pragst and Stefan Ultes

Modeling Linguistic and Personality Adaptation for Natural Language Generation
Zhichao Hu, Jean Fox Tree and Marilyn Walker

12:15–13:30 ***Lunch***

July 12 (continued)

13:30–14:30 Poster 1

Estimating User Interest from Open-Domain Dialogue
Michimasa Inaba and Kenichi Takahashi

Does Ability Affect Alignment in Second Language Tutorial Dialogue?
Arabella Sinclair, Adam Lopez, C. G. Lucas and Dragan Gasevic

Just Talking - Modelling Casual Conversation
Emer Gilmartin, Christian Saam, Carl Vogel, Nick Campbell and Vincent Wade

Neural User Simulation for Corpus-based Policy Optimisation of Spoken Dialogue Systems
Florian Kreyssig, Iñigo Casanueva, Paweł Budzianowski and Milica Gasic

Introduction method for argumentative dialogue using paired question-answering interchange about personality
Kazuki Sakai, Ryuichiro Higashinaka, Yuichiro Yoshikawa, Hiroshi Ishiguro and Junji Tomita

Automatic Token and Turn Level Language Identification for Code-Switched Text Dialog: An Analysis Across Language Pairs and Corpora
Vikram Ramanarayanan and Robert Pugh

A Situated Dialogue System for Learning Structural Concepts in Blocks World
Ian Perera, James Allen, Choh Man Teng and Lucian Galescu

Pardon the Interruption: Managing Turn-Taking through Overlap Resolution in Embodied Artificial Agents
Felix Gervits and Matthias Scheutz

Consequences and Factors of Stylistic Differences in Human-Robot Dialogue
Stephanie Lukin, Kimberly Pollard, Claire Bonial, Matthew Marge, Cassidy Henry, Ron Artstein, David Traum and Clare Voss

Turn-Taking Strategies for Human-Robot Peer-Learning Dialogue
Ranjini Das and Heather Pon-Barry

14:30–15:00 ***Coffee Break***

July 12 (continued)

15:00–17:15 Special Session - Physically Situated Dialogue

Predicting Perceived Age: Both Language Ability and Appearance are Important
Sarah Plane, Ariel Marvasti, Tyler Egan and Casey Kennington

Multimodal Hierarchical Reinforcement Learning Policy for Task-Oriented Visual Dialog
Jiaping Zhang, Tiancheng Zhao, Zhou Yu

Language-Guided Adaptive Perception for Efficient Grounded Communication with Robotic Manipulators in Cluttered Environments
Siddharth Patki and Thomas Howard

17:15–18:00 ***Sponsor Session***

18:15–19:30 ***Reception***

July 13

09:30–10:30 *Keynote 2*
Ingrid Zukerman

10:30–11:00 ***Coffee Break***

July 13 (continued)

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Unsupervised Counselor Dialogue Clustering for Positive Emotion Elicitation in Neural Dialogue System
Nurul Lubis, Sakriani Sakti, Koichiro Yoshino and Satoshi Nakamura

Discovering User Groups for Natural Language Generation
Nikos Engonopoulos, Christoph Teichmann and Alexander Koller

Controlling Personality-Based Stylistic Variation with Neural Natural Language Generators
Shereen Oraby, Lena Reed, Shubhangi Tandon, Sharath T.S., Stephanie Lukin and Marilyn Walker

12:15–13:30 ***Lunch***

13:30–15:00 Poster 2 and Interactive demos

A Context-aware Convolutional Natural Language Generation model for Dialogue Systems
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A Unified Neural Architecture for Joint Dialog Act Segmentation and Recognition in Spoken Dialog System
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Cost-Sensitive Active Learning for Dialogue State Tracking
Kaige Xie, Cheng Chang, Liliang Ren, Lu Chen and Kai Yu

Discourse Coherence in the Wild: A Dataset, Evaluation and Methods
Alice Lai and Joel Tetreault

Neural Dialogue Context Online End-of-Turn Detection
Ryo Masumura, Tomohiro Tanaka, Atsushi Ando, Ryo Ishii, Ryuichiro Higashinaka and Yushi Aono

Spoken Dialogue for Information Navigation
Alexandros Papangelis, Panagiotis Papadakos, Yannis Stylianou and Yannis Tzitzikas

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Improving User Impression in Spoken Dialog System with Gradual Speech Form Control
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A Bilingual Interactive Human Avatar Dialogue System
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DialCrowd: A toolkit for easy dialog system assessment
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Leveraging Multimodal Dialog Technology for the Design of Automated and Interactive Student Agents for Teacher Training
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Role play-based question-answering by real users for building chatbots with consistent personalities
Ryuichiro Higashinaka, Masahiro Mizukami, Hidetoshi Kawabata, Emi Yamaguchi, Noritake Adachi and Junji Tomita

Addressing Objects and Their Relations: The Conversational Entity Dialogue Model
Stefan Ultes, Paweł Budzianowski, Iñigo Casanueva, Lina M. Rojas Barahona, Bo-Hsiang Tseng, Yen-chen Wu, Steve Young and Milica Gasic

Conversational Image Editing: Incremental Intent Identification in a New Dialogue Task
Ramesh Manuvinakurike, Trung Bui, Walter Chang and Kallirroi Georgila

18:15–21:00 ***Banquet***

July 14

09:30–10:30 *Keynote 3*
Milica Gasic

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11:00–12:15 **Oral 4 - Discourse**

Fine-Grained Discourse Structures in Continuation Semantics
Timothée Bernard

Automatic Extraction of Causal Relations from Text using Linguistically Informed Deep Neural Networks
Tirthankar Dasgupta, Rupsa Saha, Lipika Dey and Abir Naskar

Toward zero-shot Entity Recognition in Task-oriented Conversational Agents
Marco Guerini, Simone Magnolini, Vevake Balaraman and Bernardo Magnini

12:15–13:30 ***Lunch***

13:30–14:30 **Poster 3**

Identifying Explicit Discourse Connectives in German
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Feudal Dialogue Management with Jointly Learned Feature Extractors
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Variational Cross-domain Natural Language Generation for Spoken Dialogue Systems
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Coherence Modeling Improves Implicit Discourse Relation Recognition
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Constructing a Lexicon of English Discourse Connectives
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Maximizing SLU Performance with Minimal Training Data Using Hybrid RNN Plus Rule-based Approach
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An Analysis of the Effect of Emotional Speech Synthesis on Non-Task-Oriented Dialogue System
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Multi-task Learning for Joint Language Understanding and Dialogue State Tracking
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Weighting Model Based on Group Dynamics to Measure Convergence in Multiparty Dialogue
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14:30–15:00 ***Coffee Break***

15:00–16:15 **Oral 5 - State Tracking**

Concept Transfer Learning for Adaptive Language Understanding
Su Zhu and Kai Yu

Cogent: A Generic Dialogue System Shell Based on a Collaborative Problem Solving Model
Lucian Galescu, Choh Man Teng, James Allen and Ian Perera

Identifying Domain Independent Update Intents in Task Based Dialogs
Prakhar Biyani, Cem Akkaya and Kostas Tsioutsiouliklis

16:15–17:30 ***Buisiness Meeting, Awards, Closing***