

SIGDIAL 2009

Proceedings of the SIGDIAL 2009 Conference



**The 10th Annual Meeting
of the Special Interest Group on
Discourse and Dialogue**

Edited by
Patrick Healey, Roberto Pieraccini,
Donna Byron, Steve Young, Matthew Purver

11–12 September 2009
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Introduction

We are happy to present the Proceedings of the SIGDIAL 2009 Conference, the 10th Annual Meeting of the Special Interest Group on Discourse and Dialogue. This year the SIGDIAL meeting has been elevated from Workshop to Conference by ACL, its main sponsoring organization. That is an unmistakable recognition of the role that dialogue and discourse research play in the fields of computational linguistics, human-machine communication, and language technology in general.

Our thanks go to the program committee who have performed an excellent job in reviewing the submitted papers and providing scores and comments that have helped to maintain a high standard of quality. We received a record number of 103 submissions; 24 of them were accepted as lectures, 24 as poster presentations, and 3 as demos. As it is a tradition of SIGDIAL, we have attempted to preserve a balance among the different topics, especially between the more theoretical and empirically oriented studies and the technological and engineering challenges.

We are also grateful to our two keynote speakers: Professor Yorick Wilks and Professor Janet Bavelas for providing stimulating talks on the state-of-the-art in dialogue research.

Many thanks go to Donna Byron and Steve Young who graciously agreed to serve as technical program chairs and coordinated the whole review process by selecting the program committee, assigning papers to reviewers, resolving conflicts, and making sure that all reviews were submitted on time. They also selected the candidates for the best paper awards, and created the final program of the conference. Many thanks to Matthew Purver, local Chair, who has done an outstanding job; always available and ready to help at any step of the process, from the local arrangements, to the conference Web site, to the publication of these proceedings.

We are grateful to ACL and Priscilla Rasmussen for providing financial support and budgetary information, and the SIGDIAL board for their constant support in all matters, in particular Tim Paek, SIGDIAL President, Amanda Stent, David Traum, and Kristiina Jokinen.

And finally, thanks to all the authors that submitted the papers and all the participants to the meeting for their continuous support of this exciting and interesting conference.

Pat Healey & Roberto Pieraccini

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Matthew Stone, Rutgers University, USA
Matthew Stuttle, Toshiba Research, UK
Joel Tetreault, Educational Testing Service, USA
Michael White, Ohio State University, USA
Jason Williams, AT&T Labs - Research, USA

Invited Speakers:

Janet Bavelas, University of Victoria, Canada
Yorick Wilks, University of Sheffield, UK

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Conference Program

Friday, 11th September, 2009

8:45–9:00 Introduction

9:00–10:00 Papers 1-3:

Evaluating the Effectiveness of Information Presentation in a Full End-To-End Dialogue System

Taghi Paksimha, Kallirroi Georgila and Johanna Moore

Can I Finish? Learning When to Respond to Incremental Interpretation Results in Interactive Dialogue

David DeVault, Kenji Sagae and David Traum

Are You Being Addressed? - Real-Time Addressee Detection to Support Remote Participants in Hybrid Meetings

Harm op den Akker and Rieks op den Akker

10:00–11:00 Invited Talk 1:

What's Unique About Dialogue?

Janet Bavelas

11:00–11:15 Coffee

11:15–12:15 Papers 4-6:

Incremental Reference Resolution: The Task, Metrics for Evaluation, and a Bayesian Filtering Model that is Sensitive to Disfluencies

David Schlangen, Timo Baumann and Michaela Atterer

Dealing with Interpretation Errors in Tutorial Dialogue

Myroslava Dzikovska, Charles Callaway, Elaine Farrow, Johanna Moore, Natalie Steinhauser and Gwendolyn Campbell

Towards the Interpretation of Utterance Sequences in a Dialogue System

Ingrid Zukerman, Patrick Ye, Kapil Kumar Gupta and Enes Makalic

12:15–1:30 Lunch

Friday, 11th September, 2009 (continued)

1:30–2:30 Papers 7-9:

Participant Subjectivity and Involvement as a Basis for Discourse Segmentation

John Niekrasz and Johanna Moore

Genre-Based Paragraph Classification for Sentiment Analysis

Maite Taboada, Julian Brooke and Manfred Stede

Detecting the Noteworthiness of Utterances in Human Meetings

Satanjeev Banerjee and Alexander Rudnicky

2:30–4:00 Poster Session 1:

A: An Experimental Investigation into... B: ...Split Utterances

Christine Howes, Patrick Healey and Gregory Mills

Interactive Gesture in Dialogue: a PTT Model

Hannes Rieser and Massimo Poesio

Tense, Temporal Expressions and Demonstrative Licensing in Natural Discourse.

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Friday, 11th September, 2009 (continued)

Not a Simple Yes or No: Uncertainty in Indirect Answers

Marie-Catherine de Marneffe, Scott Grimm and Christopher Potts

Concept Form Adaptation in Human-Computer Dialog

Svetlana Stoyanchev and Amanda Stent

Demos:

Automatic Generation of Information State Update Dialogue Systems that Dynamically Create Voice XML, as Demonstrated on the iPhone

Helen Hastie, Xingkun Liu and Oliver Lemon

Dialog System for Mixed Initiative One-Turn Address Entry and Error Recovery

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Leveraging POMDPs Trained with User Simulations and Rule-based Dialogue Management in a Spoken Dialogue System

Sebastian Varges, Silvia Quarteroni, Giuseppe Riccardi, Alexei Ivanov and Pierluigi Roberti

4:00–4:15 Coffee

4:15–5:15 Papers 10-12:

Speeding Up the Design of Dialogue Applications by Using Database Contents and Structure Information

Luis Fernando D'Haro, Ricardo de Cordoba, Juan Manuel Lucas, Roberto Barra-Chicote and Ruben San-Segundo

Modeling User Satisfaction with Hidden Markov Models

Klaus-Peter Engelbrecht, Florian Gödde, Felix Hartard, Hamed Katabdar and Sebastian Möller

Discourse Structure and Performance Analysis: Beyond the Correlation

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7:00–11:00 Conference Dinner

Saturday, 12th September, 2009

9:00–10:00 Papers 13-15:

The Role of Interactivity in Human-Machine Conversation for Automatic Word Acquisition

Shaolin Qu and Joyce Chai

Clarification Potential of Instructions

Luciana Benotti

What do We Know about Conversation Participants: Experiments on Conversation Entailment

Chen Zhang and Joyce Chai

10:00–11:00 Invited Talk 2:

Artificial Companions as Dialogue Agents

Yorick Wilks

11:00–11:15 Coffee

11:15–12:15 Papers 16-18:

Effects of Conversational Agents on Human Communication in Thought-Evoking Multi-Party Dialogues

Kohji Dohsaka, Ryota Asai, Ryuichiro Higashinaka, Yasuhiro Minami and Eisaku Maeda

Models for Multiparty Engagement in Open-World Dialog

Dan Bohus and Eric Horvitz

Extracting Decisions from Multi-Party Dialogue Using Directed Graphical Models and Semantic Similarity

Trung Bui, Matthew Frampton, John Dowding and Stanley Peters

12:15–1:30 Lunch & SIGDIAL Business Meeting

Saturday, 12th September, 2009 (continued)

1:30–2:30 Papers 19-21:

Learning to Predict Engagement with a Spoken Dialog System in Open-World Settings
Dan Bohus and Eric Horvitz

Turn-Yielding Cues in Task-Oriented Dialogue
Agustín Gravano and Julia Hirschberg

Split Utterances in Dialogue: a Corpus Study
Matthew Purver, Christine Howes, Eleni Gregoromichelaki and Patrick Healey

2:30–3:45 Poster Session 2:

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Dialogue Behaviour under High Cognitive Load
Jessica Villing

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Simultaneous Dialogue Act Segmentation and Labelling using Lexical and Syntactic Features
Ramon Granell, Stephen Pulman and Carlos-D. Martínez-Hinarejos

The Spoken Dialogue Challenge
Alan Black and Maxine Eskenazi

3:45–4:15 Coffee & Grand Challenge Discussion

4:15–5:15 Papers 22-24:

Unsupervised Classification of Dialogue Acts using a Dirichlet Process Mixture Model
Nigel Crook, Ramon Granell and Stephen Pulman

A Handsome Set of Metrics to Measure Utterance Classification Performance in Spoken Dialog Systems

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Contrasting the Interaction Structure of an Email and a Telephone Corpus: A Machine Learning Approach to Annotation of Dialogue Function Units

Jun Hu, Rebecca Passonneau and Owen Rambow

5:15–5:35 Close