**The 21st Annual Meeting of the
Young Researchers' Roundtable on Spoken Dialogue Systems**

Proceedings of the Workshop

September 28 - 29, 2025
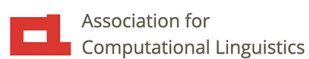Avignon, France

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Preface

We are once again extremely grateful to present the opening remarks for the 21st Young Researchers Roundtable on Spoken Dialogue Systems (YRRSDS) 2025, a workshop dedicated to PhD candidates, PostDocs, and emerging researchers in the field. YRRSDS 2025 will be held in conjunction with the Special Interest Group on Discourse and Dialogue (SIGDIAL) 2025. The workshop took place on August 28-29, 2025, at Avignon University in Avignon, France. This year's YRRSDS was conducted in an in-person format.

Young researchers submitted a 2-page position paper regarding their current research topics, interests, and the key points they hoped to discuss during the workshop's roundtable sessions. Each submission was carefully reviewed by two senior researchers from our Advisory Committee. We extend our deep gratitude to the Advisory Committee members for their insightful reviews. Their contributions have been invaluable in offering critical feedback to the workshop participants at this pivotal stage in their careers.

Participants accepted into the program were required to deliver a brief oral presentation based on their submissions. This year, YRRSDS accepted all 9 submissions received. The roundtable discussions covered topics such as low-resource and domain-specific adaptation, personalization, multimodality, tool use, explainability, evaluation, trustworthiness, ethics, and safety in Dialogue Systems.

Alongside the oral sessions and roundtables, the program featured three outstanding keynote presentations. We would like to express our gratitude and acknowledge our keynote speakers: Casey Kennington (Associate Professor, Boise State University), Kristiin Jokinen (Senior Researcher at AIRC AIST Tokyo Waterfront; University of Helsinki) and David Traum (Director for Natural Language Research at the Institute for Creative Technologies; Research Professor in the Department of Computer Science at the University of Southern California) for their inspiring talks. We extend our gratitude to the organizers for making sure the conference ran seamlessly and was enjoyed by all attendees.

Organizing Committee, YRRSDS 2025

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10:45–11:00   **Break**

11:00–12:15   **Presentation Session 1: Advanced Dialogue System Architectures & Controls**

Knowledge Graphs and Representational Models for Dialogue Systems
Nicholas Thomas Walker

Deep Reinforcement Learning of LLMs using RLHF
Enoch Levandovsky

Conversational Collaborative Robots
Chalamalasetti Kranti

Dialogue System using Large Language Model-based Dynamic Slot Generation
Ekai Hashimoto

Controlling Dialogue Systems with Graph-Based Structures
Laetitia Mina Hilgendorf

12:15–13:15   **Lunch**

13:15–14:30   **Round Table 1**

14:30–15:00   **Break**

15:00–15:50   **Keynote 2: Dr. Kristiina Jokinen**

15:50–16:00   **Break**

16:00–17:00   **Round Table 2**

19:00–   **Social Event: Dinner at Le Bercail**

Day 2

09:30–10:00   **Set up**

10:00–10:45   **Keynote 3: Dr. David Traum**

10:45–11:00   **Break**

11:00–12:15   **Presentation Session 2: Human-Centered Applications and Multimodal Interaction**

Multimodal Agentic Dialogue Systems for Situated Human-Robot Interaction
Virgile Sucal

Towards Human-Like Dialogue Systems: Integrating Multimodal Emotion Recognition and Non-Verbal Cue Generation
Jingjing Jiang

Research on LLMs-Empowered Conversational AI for Sustainable Behaviour Change
Ben Chen

Towards Adaptive Human-Agent Collaboration in Real-Time Environments
Kaito Nakae

12:15–13:15   **Lunch**

13:15–14:30   **Round Table 3**

14:30–15:00   **Wrap up and Photo**

16:00–18:00   **Guided Tour of Avignon**

Keynotes

Keynote 1: Making Your Way as a Researcher in Spoken Dialogue Systems

Casey Kennington (Boise State University)

Abstract:

As little as 10 years ago, very few people cared much about interacting with machines using language, but since ChatGPT's release in late 2022, now chatbots are common and mainstream. What is next for spoken dialogue systems? A lot. In my talk, I will highlight some key areas that I think have a bright future including some of my own research, and offer some career advice.

Keynote 2: Shared Understanding, Shared Responsibility: Towards Grounded GenAI Models for More Reliable Human-Robot Interactions

Kristiina Jokinen (National Institute of Advanced Industrial Science and Technology)

Abstract: As language-capable robots have become more widespread, with GenAI models supporting conversational style as a standard interaction mode, critical questions have arisen concerning contextual understanding, multimodality, accuracy, personalization, trustworthiness, and sustainability of these systems. In this talk, I will present insights from recent projects and ongoing research that explore how GenAI models can enhance human-robot interaction. Starting with the enablements of communication, I will discuss the design and development of real-world applications, focussing on technical aspects related to knowledge graphs and grounding, construction of shared context and integration of information from the environment, and addressing broader goals of creating responsible AI for natural, safe and reliable HRI systems.

Keynote 3: Keeping it Real: The Role of Humans in Spoken Dialogue System Research

David Traum (University of Southern California)

Abstract: AI now facilitates the automation of cognitive and communicative tasks in a manner similar to the way the industrial revolution facilitated automation of physical tasks. This automation has been applied to the design, development and evaluation of Dialogue Systems. Automation or simulation scales better than human-performed tasks and can be a valuable contribution to the research lifecycle. However there is a risk in automating too much that some value is lost, especially when current LLMs are subject to problems like hallucination and bias. In this talk I will illustrate some examples of issues that come up in automating too much too soon and how keeping humans involved in spoken dialogue system development and research can lead to better systems and science than pure automation.

Organizers' Notes of the Roundtable Discussions

Roundtable 1: Human-centered SDS

- Social Intelligence & Affective SDSs: Emotion-aware dialogue systems, roles of social intelligence (e.g., empathy, politeness, affective awareness) in enhancing engagement and usability.

- Low-resource Adaptation: Techniques for developing more inclusive and culturally consistent SDSs for low-resource languages.

- Domain-specific Applications: Adaptation of SDSs to real use-cases in different domains such as healthcare, education, and other specialized contexts.

Roundtable 2: Multimodality and Environment Integration

- Multimodal Integration: SDSs that support real-time multimodal fusion and integration, adapting to dynamic conversational context and situated conversational agents, speech integration with end to end SDS or pipelines using ASR and speech synthesis.

- Knowledge Integration and Tool Use: Approaches for SDSs to effectively utilize external knowledge, tools, APIs, and reasoning capabilities, such as RAG or agentic SDSs.

- Incremental Processing and Real-time Interaction: Modeling conversational mechanisms like interruptions, repairs, grounding, etc, on SDSs to handle conversational breakdown, and facilitating more natural and fluid dialogue.

Roundtable 3: Transparency, Evaluation, and Ethics

- Evaluation approaches for SDS: Reliability and applicability of novel approaches to measure SDSs quality (like LLM-as-a-judge) and elder ones (human evaluation, benchmarks).

- Ethics and safety: Addressing ethical challenges, including voice preservation, synthetic speech, privacy, alignment and environmental impact.

- Explainability for SDS: SDSs' ability to explain their decisions (more transparent and understandably to users, administrators or developers), the level of explainability.