

Special Session

The Future Directions of Dialogue-Based Intelligent Personal Assistants

Abstract : Today is the era of intelligent personal assistants. All the major tech giants have introduced personal assistants as the front end of their services, including Apple's Siri, Microsoft's Cortana, Facebook's M, and Amazon's Alexa. Several of these companies have also released bot toolkits so that other smaller companies can join the fray. However, while the quality of conversational interactions with intelligent personal assistants is crucial for their success in both business and personal applications, fundamental problems, such as discourse processing, computational pragmatics, user modeling, and collecting and annotating adequate real data, remain unsolved. Furthermore, the intelligent personal assistants of tomorrow raise a whole set of new technical problems.

The special SIGDIAL session "The Future of Dialogue-Based Intelligent Personal Assistants" holds a panel discussion with notable academic and industry players, leading to insights on future directions.

Time Table

- **Introduction (15 minutes)**
 - Overview of the session
 - Introduction of the panels
- **Panel Discussion (75 minutes)**
 - Short position talks
 - Discussion
 - QA and summary

Organizers

- **Yoichi Matsuyama**, Postdoctoral Fellow, Human-Computer Interaction Institute / Language Technologies Institute, Carnegie Mellon University
- **Alexandros Papangelis**, Research Scientist, Toshiba Cambridge Research Laboratory

Advisory Board

- **Justine Cassell**, Associate Dean of the School of Computer Science for Technology Strategy and Impact, Carnegie Mellon University

Panelists

- **Steve Young**, Professor of Information Engineering, Information Engineering Division, University of Cambridge
- **Jeffrey P. Bigham**, Associate Professor, Human-Computer Interaction Institute / Language Technologies Institute, Carnegie Mellon University
- **Thomas Schaaf**, Senior Speech Scientist, Amazon
- **Zhuoran Wang**, CEO, trio.ai

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