

Title:

Real-life dialogues between humans and machines: the interface between discourse research in linguistics and dialogue systems research in engineering

Organizers: Mayumi Usami, Ryuichiro Higashinaka, Hiroyuki Nishikawa

Abstract:

The purpose of this workshop is to identify the interface between discourse research in linguistics and dialogue systems research in engineering. In other words, the proposal focuses on analyses of real-life dialogues between humans and machines in addition to between humans. We will also explore how investigating the dynamics of complex human interactions in conversation can be applied to the development of dialogue systems. While linguistic research has examined phenomena such as shifts in speech levels, language use tailored to interlocutors, and politeness theories, the current state of dialogue system research in engineering has not fully incorporated these language phenomena and their potential impact on impressions and human relationships formed during conversations.

However, with the rapid development of generative AI today, the construction of dialogue systems capable of conversing like humans has advanced significantly. It is imperative to explore how such dialogue systems are created and applied to real-life situations. Indeed, there are attempts to deploy robots providing services such as tourist guidance. In these situations, at the same time, we have to continue to compare the contents and quality of AI's dialogue with human dialogue, considering how much AI understands situations and if we conduct human-centered dialogue.

This interdisciplinary workshop invites contributions from both linguistics and engineering to share the current state of "conversation/dialogue" research and explore possibilities for future collaboration. Specific topics of interest include the potential application of politeness theories to dialogue system research, analysis of human-to-human conversations, analysis of human-system conversations, as well as the reports of the current state of practical applications in contexts such as tourist guidance and nursing homes, where dialogue systems are integrated into robots or agents. Further, we encourage potential presenters to consider possible ethical and privacy concerns in all topics.

This workshop intends to envision a better way of harmonious human-AI interactions in a society where humans and AI coexist by providing a platform for exchanging these ideas and knowledge.