

Editorial

Thomas Ludwig*, Philip Weber, Alexander Maedche and Andreas Riener

Special issue on “conversational agents” – Editorial

<https://doi.org/10.1515/icom-2023-0010>

Published online March 16, 2023

Conversational agents have become omnipresent in our daily life. We are surrounded by various conversational agents, from Siri and Alexa to Google Assistant and the recent ChatGPT. They therefore have also become an increasingly popular research topic in the fields of Human-Computer Interaction and Information Systems.

Conversational agents are software systems that use natural language to interact with humans, encompassing text-based chatbots and speech-based voice assistants. Conversational agents were used to automate simple routine communication tasks in various application areas for a long time. However, due to improved algorithms and the increasing volume of data, conversational agents are now also being used for more complex tasks, such as fostering dialogic interaction for informal learning or supporting mental health.

For this special issue, we received a diverse set of submissions that showcase the latest advancements in the field of conversational agents. After a rigorous peer-review process, we are excited to present a selection of six thought-provoking and impactful papers.

The first paper, “PrintAssist—A Conversational Human-Machine Interface for 3D Printers” by Jasche et al., presents an innovative conversational agent that enables a more intuitive way of interacting with 3D printers. In “Say What you Want, I’m not Listening! A conversational social robot behavior design for self-reflection that does not parse user speech” by Young et al., the authors explore

the design of a conversational social robot that encourages self-reflection without actually listening to the user’s speech. The third paper, “Fridolin: Participatory Design and Evaluation of a Nutrition Chatbot for Older Adults” by Weber et al., presents a participatory design process for a nutrition chatbot aimed at improving the health of older adults. In “Addressing loneliness in the workplace through human-robot interaction” by Schuster et al., the authors propose a novel approach to address loneliness in the workplace by using a conversational agent as a social companion. The fifth paper, “Authentication Methods for Voice Services on Smart Speakers – A Multi-Method Study on Perceived Security and Ease of Use” by Baldauf et al., investigates users’ perceptions of security and ease of use of different authentication methods for voice services on smart speakers. Finally, “Digital Natives Aren’t Concerned Much About Privacy, or Are They?” by Maier et al., explores the privacy concerns of digital natives when interacting with conversational agents.

We believe that this special issue offers a glimpse into the latest developments in the field of conversational agents and showcases their potential in various application areas. We hope that it will inspire researchers and practitioners to continue to explore new and innovative ways to use conversational agents in the future.

Finally, we would like to mention that this text was first generated by ChatGPT, a large language model trained and offered by OpenAI. This showcases the potential of conversational agents and natural language processing technologies to automate various tasks, including writing. By using input information and prompts, ChatGPT can generate coherent and informative text that can be used for various purposes.

Note: Even the previous disclaimer was written by ChatGPT. For this purpose, we took the full text of the Special Issues call, added only the titles of the accepted papers and the first author with “et al.” (the abstracts of the accepted papers were not added), and then made only minor adjustments to the text.

The abbreviated original prompt was as follows: “Write an editorial text for the Special Issue on “Conversational

***Corresponding author: Thomas Ludwig**, Cyber-Physical Systems, University of Siegen, Kohlbettstr. 15, 57072 Siegen, Germany, E-mail: thomas.ludwig@uni-siegen.de. <https://orcid.org/0000-0003-3461-2585>

Philip Weber, Cyber-Physical Systems, University of Siegen, Kohlbettstr. 15, 57072 Siegen, Germany, E-mail: philip.weber@uni-siegen.de. <https://orcid.org/0000-0003-3537-5753>

Alexander Maedche, Karlsruhe Institute of Technology, Kaiserstr. 98, 76131 Karlsruhe, Germany. <https://orcid.org/0000-0001-6546-4816>

Andreas Riener, Technische Hochschule Ingolstadt, Esplanade 10, 85049 Ingolstadt, Germany. <https://orcid.org/0000-0002-9174-8895>

Agents”. Write an introduction. Keep in mind that the submission deadline has passed and a selection of papers have already been reviewed and will be published along with the introductory text. The selected papers are the following: – [“Title of the first paper”] by [Last name of the first author] et al. – [“Title of the second paper”] [...] Add a section at the end to add that the text was generated by ChatGPT to showcase the upcoming potential of CAs. Also state and explain

how this text was generated. Use the following information from the call as a basis for your writing: [Our full call for papers]”

Thomas Ludwig
Philip Weber
Alexander Maedche
Andreas Riener
Co-Editors