Gunter Lösel, "Theatre Dialogues with Machines"

Abstract: This contribution adds to the field of creativity & machine learning from the practice-based perspective of theatre. Since 2017 we conducted tryouts with chatbots interacting with human actors on the theatre stage in real-time at the Zurich University of the Arts. We used different setups and focused on improvisation in order to allow for machines to react autonomously, with different scenarios and dialogues emerging in each human-machine-interaction. Within this frame we developed two theatre pieces "Almost Human" in 2019 and "Silicon Woman" in 2021 along with several smaller artistic experiments. Using rather simple machine learning devices we managed to create long and entertaining human-machine dialogues and even a play of evening length, involving two chatbots. Both theatre experiments were presented in public, leading the audience to ascribe human traits and states to the performing machines, agency and even something like a "personality".

In this talk I want to present these projects, discuss the technical and artistic challenges and reflect on the effects of anthropomorphism on the theatre stage. I will show some video material of the performances. In another step I will outline the approach of "applied anthropomorphism" as a framework for this kind of research. Applied anthropomorphism explores human-machine-interaction as an encounter between different species, examining especially the conditions under which a human will perceive the machine as alive, intelligent, emotional and social.

In this context I will present the basic design for "The Answering Machine", an interdisciplinary research project, which maybe, hopefully, will be accepted for funding by the day of the conference. In any case I want to present the idea of setting up interdisciplinary research to use the theatre stage as a testbed for human-machine-interaction and human-machine-co-creativity. "The Answering Machine" approaches the field from four disciplinary perspectives: computational linguistics, psychology, theatre studies and media studies. I will reflect on the parameters that we want to vary in order to generate effects of anthropomorphism or illusions of "social bots".

Gunter Lösel is a researcher and actor holding a doctorate in Theatre Studies as well as a diploma in psychology. He is heading the Research Focus Performative Practice at the Zurich University of the Arts and published on the themes of embodied cognition, improvisation, collaborative creativity and artistic research since 2004. Since 2017, he has been leading theatre tryouts involving machine learning systems in interaction with human actors on theatre stages. In 2021 he co-organized the symposium "Limits of the Human, Machines without limits", that explored the role of robotics in theatre. He was the main applicant of the project "Research Video" (SNF-funded 2017-2021) and is currently co-applicant of the project "The Answering Machine" (under evaluation). He is an accomplished actor in improvisational theatre, a member of the German National Team of Theatresports (2006), founder of the "Improtheater Bremen," and member of the price-winning duo "Stupid Lovers".