SHARESPACE Newsletter #1

SHARESPACE in short

Embodied communication in virtual spaces, between for example digital avatars, is nowhere near as seamless as real-life communication due to the heavy loss of many physical subtleties. SHARESPACE aims to research if communication in synchronization tasks in virtual spaces can be improved through AI amplification of movements. The vision of SHARESPACE is the creation of future Social Hybrid Spaces (SHS) shared by humans and avatars engaged in embodied collaborative tasks, where social sensorimotor primitives are transparently captured through mobile connected innovative sensors, and then reconstructed using novel extended reality (XR) technology. Applied in three different real-world scenarios (health, sport, and art) SHARESPACE tests the hypothesis if levels of collaboration and synchronization will improve through AI amplification of sensorimotor data.

SHARESPACE at international workshop in Naples

The SHARESPACE European project took center stage at the 3rd international workshop on “Team and Multiagent Dynamics”, held in Naples, on 26th and 27th June 2023. The event featured several captivating presentations showcasing the innovative research and advancements made within the project, including the design and early validation of cognitive architectures to drive autonomous virtual humans, and the methodologies to extract information from kinematic features in the motion of people. The workshop provided a platform to disseminate the knowledge developed in the project to fellow scientists and for fruitful discussions with experts from various research areas, such as quantitative psychology, motion sciences and multi-agent coordination.

SHARESPACE partner Cristina Becchio presents her work on ‘Kinematic Priming of Action Predictions’, credit: CrdC

Meeting SHARESPACE partners in Naples, June 2023.
Credit: Cyntha Wieringa

SHARESPACE consortium meeting in Naples

Right after the workshop, on the 28th and 29th of June 2023, the SHARESPACE consortium had their third in-person meeting in Naples, Italy. During the meeting, developments of each work package were presented and discussed. Furthermore, the research requirements, the design of the system architecture, the two proof-of-principles, and the design for the cognitive architecture of the avatars were aligned so that they can all effectively be incorporated in the three real-world scenarios. The project now enters a phase of research and technological development to prepare the production of the three real-world scenarios at the start of next year.

SHARESPACE Publications

We are happy to announce that within the context of the SHARESPACE project we have already published two scientific papers! One is published by the researchers from SHARESPACE partner CrdC, who lead the development of the cognitive architectures of the digital avatars, about ‘Control-Tutored Deep Reinforcement Learning’ . The second is published by the researchers from SHARESPACE partner UKE, who perform kinematic research, about ‘Kinematic Priming of Action Predictions’.

Upcoming Events

The SHARESPACE project will be presented in the form of a panel discussion at the upcoming Ars Electronica Festival 2023. The festival, located on the intersection between Art, Technology, and Society, is where the three artworks developed for the SHARESPACE art-scenario will be presented. Next to the panel discussion, an open call shall be announced that invites media artists to develop one of the beforementioned artworks utilizing SHARESPACE technology.