NIME 2024 Workshop

First-person and second-person perspectives for ML in NIME

Expression of interest - Giacomo Lepri

My interest in the workshop derives from the wish to reflect on the experience of building and playing NIME using machine learning and artificial intelligence. In the past year I started to explore Neural Networks as audio synthesis engine (RAVE) to be controlled with tangible interfaces. I've been working on two projects during a postdoc at the Intelligent Instruments Lab – University of Iceland:

Stacco is an instrument-score specifically designed to perform with Neural Audio Synthesis that I developed together with Nicola Privato. The interface features embedded magnets, and it detects the variations in the magnetic fields they produce. The performer interacts with Stacco by throwing, displacing and combining onto its board magnetic marbles and other ferromagnetic objects. Stacco aims to provide a fun, yet precise way of exploring latent spaces, and to offer an intuitive and immediate approach to composing for Neural Synthesis through the practice of composing embodied sketches, that is, the practice of embedding the score onto the instrument itself. It is indeed possible to place tailored pieces of cardboard or tracing paper on top of Stacco's board. As the performer finds meaningful areas and interesting performative gestures in the latent space, these can be immediately sketched on the instrument.

Pluma is a sonic sculpture which detects touch through feathers and generates sound via neural audio synthesis. The work stems from a reflection on the ways we make sense of AI in creative settings, examining technological agency as relational and perceptual phenomena. Digital interaction as magical unknown where technological liveness and intelligence are there because we simply move to evoke them. The project aims to creatively explore ways to project the illusion of liveness while listening to and interacting with a hybrid digital artwork. The installation examines technological agency as relational phenomena, where liveness and intelligence might arguably be there because we simply move to evoke them. The research involved artists, musicians and technologists to experience the installation and tell us about the digital interactions it affords. We are currently analysing and reflecting on the impressions we collected, so to better appreciate how people make sense of AI in creative settings.

I'll be happy to contribute to the workshop by briefly introducing one or both artworks and share my experience on their making and use. I hope to learn from others experience and jointly develop with workshop participants and organisers methodological intuitions for first- and second-person research to be employed in the contexts of NIME and AI.