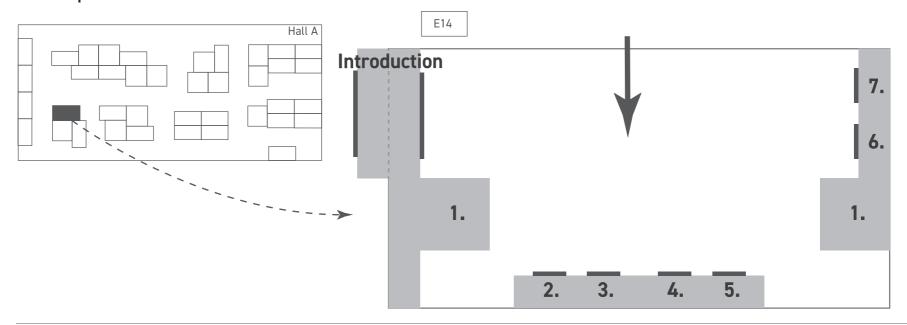
About CC Lab



Al as a tool to extend human creativity.
Al as a mirror to reflect the essence of creativity.
At SFC Computational Creativity Lab led by Nao Tokui, through research on Al and artistic endeavors, we aim to create new ways of "creating" by taking these two aspects of Al into account.

Floor Map



1. Imitation Chain

Emotional Communication by Machines Ryosuke Nakajima

Imitation Chain is an installation in which two Als capable of image classification and image generation simultaneously communicate with each other through imitating one another. This communication would be physical and emotional pre-communication, which is prior to the complicated emotional expressions.

2. Multi-Motion Crossfader

Human Tracking DJ Mix System by Crowd Reading

Yuga Kobayashi, Ryo Nishikado

This is a prototype of a DJ mixer that reflects the movements of the audience on the dance floor. The mixer automatically moves the crossfader to the side with a larger number of people, so that the audience can influence the mix.

Please try moving left and right to experience the DJ mix with this motion-aware DJ mixer.

3. Algo-Rhythm

A Live Drumming Performance Between a Human Drummer and Al Keisuke Nohara, Ryosuke Nakajima

This work is a live drumming performance between a human drummer and Al. Al interprets rhythms played by the human drummer and generates unique rhythm patterns in real time. As the autonomous Al system and a human interact with each other, the agency of the performance melts into one. It creates novel rhythmic sensations that can only be possible with this Al and human concertos.

4. M4L.RhythmVAE

VAE Rhythm Generator for Ableton Live Nao Tokui

Variational Autoencoder(VAE)-based rhythm generation device for Ableton Live/Max for Live. This plug-in software allows artists to train and use the rhythm generation model within the music production software.

The device simplifies the otherwise complicated and cumbersome process and allows artists to explore the possibility of AI freely. We aimed to democratize the use of AI in the music production process.

5. X-Sampling

Real-time Field Recording Ensemble Reo Anzai, Atsuya Kobayashi

This project explores the possibilities of a field recording system, which analyzes sound recordings from multiple participants around the world and reconstructs them into a single piece in real-time. As the method of music concrete got absorbed into modern music creations, this project aims to trigger births of unknown music genres.

6. Latent Space Probe for Graphic Design

A Role of AI in Graphic Design as a Co-Creation Partner Yuki Kawabe

In this research, we focused on the latent space that AI finds in data, and studied the discoveries incorporated into human creation while he/she explores it. We also examined how we can expand the explorable space by adding newly created works to the training data.

We observed how a designer, Ms. Kanaya, explores and expands the space in her process of designing a logo and interviewed her afterward.

7. Adversarial Fashion

Fooling AI Surveillance; Camouflage in the 21st Century Makoto Amano, Hanako Hirata, Ryosuke Nakajima, Yuka Sai

With the development of AI technology, AI surveillance society has arrived. Excessive surveillance threatens the privacy of people living in modern times. In this project, we adversarially trained an AI model to generate specific patterns inducing AI to misrecognize, then created a camouflage garment using the pattern. We seek an alternative camouflage for the 21st century and aim to reconsider the relationship between the latest technology and our well-beings.

*Computational creativity is the art, science, philosophy, and engineering of computational systems, which, by taking on particular responsibilities, exhibit behaviors that unbiased observers would deem to be creative.

