

CHORAL FLOW is an interactive sound installation that explores the affect of choral singing through interaction and architectural acoustics. The work is created as a reflection on the physical isolation in a world of digital interconnectedness. More than 60 individual singing voices were recorded during the pandemic isolation and edited as musical building blocks for this installation that unites people and the visitor through voice.

Eight active loudspeakers distributed throughout the space reproduce choral voices. The presence and actions of the visitor(s) in motion determine the chords and evolution of the composition. Sensors record the movements (speed, acceleration, direction, distance) that feed the neural network. The algorithm then creates a perceptual immersion, combining and distributing the choral voices. The acoustic and reverberating space is an essential part of the installation. It creates a connectedness between the voices and the beholder(s), who may be inspired to sing along.

Conduct the interactive spatial choir of *Choral Flow* yourself. The octagonal sound-art installation recreates a virtual choir. Experience a personal musical presence with your choreographic dialogue: the installation works with one person (if no-one is present, nothing happens - or there is a minimalistic sporadic teasing sound) or groups of maximum 25 people (depending on the setup (octagon/circle, linear, curve, ..), scenario and the room size.

Several different scenarios are possible: sensing values and algorithmic choices can be parametrised to create different interaction responses and scenarios or scores. In addition, the installation can be used in workshops combining choreography and singing. Live jamming with dansers and other instruments is a joyful and thrilling experience. Other sound banks than the current voices could be used, combining acoustic instruments, samples, poetry, live inserts, synths etc...

Features

Interactive installation, 2022,

Individual choral voices directed and recorded by Heide Bertram.

Neural network architecture and algorithm designed and coded in Python by Philippe Druez. Eight active speakers, custom stands, 9 Raspberry Pi 3B+, 8 LiDar sensors, electronics and cables. Space needed: minimum 150m². Preferable longer reverb acoustics (heigh ceiling).

Related works: the macePods, the Heidelberg Press Project (3D VR sound, aka. The Beach Beneath the Street), the iNeuron World Ensemble.

Heide Bertram is a classic soprano (MA Münster Musik-hochschule) and explores the boundaries of voice, acoustic instruments and field recording.

Philippe Druez is an artist expressing ideas with interactive installations and sound-art projects extending his practice as PhD researcher at IPEM – musicology dept. UGent and KASK conservatory.



