

Sensorium Connect / Body Morph

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www.abc.net.au/arts/lroom/sensorium

www.toysatellite.org/sensorium/connect

Abstract

Commissioned by the ABC/Radio Arts, The Listening Room (Australian Broadcasting Corporation), Sensorium Connect is a *generative* composition comprising of sounds sampled from performances by Stelarc.

Introduction

Generative music is algorithmically driven to produce variation, ongoing evolution and development of sounds. Sensorium Connect was an ever-changing generative sound space that combined the medium of radio and that of the Internet into an exploration of non-repetitive creative possibilities.

Towards Sensorium Connect

The future of music and sound is space! Sensorium Connect is one such space, an ever-changing generative sound space that combines the medium of radio and that of the Internet into an exploration of non-repetitive creative possibilities. For artists like me, the Internet has become a vital platform with which to further our ruminations on the world. It's a collaborative medium that returns us to a kind of social circulation of information.

Generative music is algorithmically driven to produce variation, ongoing evolution and development of sounds. Sensorium Connect is a generative music composition designed especially for radio and the Internet.

Sensorium Connect is both composition and process. The composition is comprised of sounds created by the artist, Stelarc, in collaboration with Rainer Linz, during his performances. The sounds include brain waves, heartbeat and blood flow. The sounds of his third mechanical hand are also amplified.

Sensorium Connect also includes sampled sounds triggered from an angle transducer that measures the bending angle of the legs and a sensor that monitors CO2 in the breathing. "These variations make it a much less predictable signal and a much more beautiful resulting sound. The sounds that are indicative of the physiological function of the body, and the mechanical operation of the third hand are rendered neutral in their associations so that they don't sound like a musical instrument or natural sound or some kind of other technological object that we know and identify with". (Stelarc, 1996)

These sounds are further mutated through a generative compositional process that sees to it that the piece, as well as much of the sounds, are never heard the same twice. Twenty four samples in total were individually processed, collated into instrument banks, or soundfonts, then compiled into sound clusters according to their relationship to each other.

I adjusted each sample, or voice, to flow through an arrangement governed by up to 200 different parameters. These include mutation factors, chord shifts, semitone shifts, random scales, micro modulation, harmony rules and detailed manipulation of filter level parameters.

Acoustically what's happening in Stelarc's performances is a kind of aura is generated around the body. "When internal body signals are amplified they are, in a sense, emptied from the body into the room within which the body is performing. The humanoid shape of the body that originally contains the sound now becomes the cuboid space of the room". (Stelarc, 1996)

In Sensorium Scan, these sounds are further emptied into what one might call the suspended ever-evolving space of the Internet. An acoustical landscape translating from humanoid form to cuboid space to space as instrument.

Sensorium Connect was created with Koan generative music software from SSEYO Ltd. It utilises the synthesis and soundfont features of the Creative Labs AWE64 soundcard.

1000857 minutes of live generative music over the web is being managed by a single computer at the ABC, serving both the generative composition and encoding it for RealAudio.

Generative music is algorithmically driven to produce variation, ongoing evolution and development of sounds. The process of creation, performance and distribution of music is changing. The Internet is an amorphous infrastructure for the liberation of creative ideas and is no doubt influencing the work of artists the world over. It is a time of enriching exploration and discovery that is akin to the period during which Francesco Pierro was to discover perspective and the body's relationship to space.



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