

BIG DATA MUSIC- Project Description

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Performed at the *From Big Data to Big Understanding* workshop, arranged by the Tällberg Foundation, the Royal Swedish Academy of Engineering Sciences (IVA) and the SAS Institute, IVA Conference Center, Grev Turegatan 16, Stockholm, Sweden, Nov 21st, 2013

In this seminar on Big Data and its implications, several leading figures were invited. I was asked to give an artistic perspective on Big Data, and decided to do create a musical sonification of a huge data set, calculated in real time by a dynamic feedback system, and then perform an improvised exploration of this data set, where properties (such as order/chaos, different periodicities, etc.) of the data can be perceived by the audience. During the performance, I can freely navigate in the huge data space, as well as zoom in to the data to hear it at a higher resolution (perceived as a slow down of the musical tempo). I also control the dynamic levels of the four different musical parts. The piece is controlled with a pressure sensor array, where the position of my fingers on four rubber pads control the location in the 8-dimensional system, the pressure controls volume of the four musical parts. A separate pad controls the zoom effect, also with pressure, while the last pad triggers a movement in the data space.

Big Data Music was developed and performed by Palle Dahlstedt using the Nord Modular G2 signal processing environment, with a McMillen QuNeo as controller/interface.

The performance was not recorded live, but I have made recordings afterwards, with similar improvisations.

I introduced the piece with a short talk about how it works, and what they were going to hear. My performance was the final of the seminar.

The seminar was full, with around 100 people in the audience, and the piece was received with great enthusiasm.

The following people were presenting at the seminar:

Björn O. Nilsson, IVA president

Gösta Lemne, IVA chairman

Anders Ynnerman, Norrköping Visualization Centre director, and professor at Linköping University

Mikael Hagström, SAS Institute executive vice president

Alan Stoga, Zemi Communications president, Tällberg Foundation board member

Robert Kirkpatrick, UN Global Pulse director (via live link from New York)

Johan Kuylenstierna, Stockholm Environment Institute executive director

Bo Ekman, Tällberg Foundation founder and chairman

Palle Dahlstedt, composer and associate professor in IT/computer-aided creativity at Chalmers University of Technology.

Moderator was **Alexander Crawford**, Tällberg Foundation research director.