Grand Exposition - *Verfasst* - 2017

by Vik Kaushal (Logan & Wilcox)

The piece was commissioned by the Cornbrook Collective in conjunction with Capital & Centric and the Manchester Science Festival. It brought together all the other components conceived in the previous performances. It was also an audio-visual installation which made use of brainwave headsets and heart rate monitors to collect biometric data (EEG and ECG) from the participants. The collected data then acted as triggers, influencing the sonic and visual information being projected into the performance space. Participants, therefore, had an effect on the sound and images by controlling their biometric data using meditational techniques.

Workshops were carried out on three days over the course of three weeks. We trained a number of peer practitioners to help facilitate the running of the event, explaining in particular how to assist the other participants who would be attending. This time, participants were recruited one month in advance of the performance days. This was intended to account for the fact that there had been too large of a knowledge gap in previous participants. Previous performances / experiments had illustrated that participants usually had little experience of mind control and that the sensory equipment required a certain level of training in order for participants to have a command of their unconscious behavior in this particular performative environment. The workshops explored how collaborative performance techniques can be used to practice mindfulness. We ran the workshops alongside experts who worked in this field and also others who worked in neuroscience. Participants were provided with a basic theoretical knowledge for understanding biofeedback loops and the opportunity to gain hands on experience with the hardware and software. The work workshops all took place at Talbot Mill during an open studio session.

Peer practitioners were recruited from a network of volunteers and experts on the MOSI emailing list (Manchester Museum of Science and Industry). The call for volunteers was

targeted at participants who had already indicated an interest in this area of Si-Art, particularly from the field of neuroscience. We were able to recruit neuroscientists Dr. Jason Taylor from Manchester University and Dr. Aspasia Paltoglou from Manchester Metropolitan University. It was intended that these two doctors would steer and guide the use and interpretation of the data and also help to create the system which would implement the biofeedback loop. Their assistance also allowed me to focus on engaging with the participants, encouraging a dynamic atmosphere of collaboration.

In a volume of essays, *Understanding understanding*, Heinz von Foerster poses the question: "how does a machine know that it's learning?" When we are sat in a classroom, we are aware that learning is taking place. The question our experiment performance began to unpack was this: how do we get a machine to do the same? This intersection of machine learning and behaviour lies at the limits of our understanding and the scope of this project. Yet, precisely its novelty was what incited our interest.