The Control Illusion in Synergist Art

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Abstract

Modern art often aims at representing the process of perception rather than the perceivable world of objects. Artists encourage the viewers of their creations to reflect and expand the modes of perception and to rethink concepts of beauty, value and meaning. However, the recipient's cooperativity that is required for the appreciation of a piece of art cannot be taken for granted. The design of virtual worlds, on the other hand, approaches a perfection where representation and reality are almost indistinguishable. This is achieved by exploiting and shaping the modes of perception thereby gradually reducing the active component in perception.

The present contribution is in support of a synergist interaction between artist and recipient that is based on a direct participation of the observer. This requires the artist to create an open system that is not only perceived and interpreted by the viewer, but is actually modified and developed. The aim consists in encouraging the viewer to generate a personal version of the piece of art, rather than merely contribute to an average fit.

The methodology underlying to our approach is derived from the paradigm of a self-organizing controller which interact in a closed sensorimotor loop with an environment that, however, includes an active human participant. Human cooperativity is required on a very basic level only, namely by the instruction to follow the process that the piece consists of. We are using a computer screen which show moving patterns that are to be followed by movements of eyes, head or arms. The patterns on screen are controlled by a self-organizing controller that in turn has the objective to received predictable feedback from the human participant. The role of the artist consists in preparing the classes of patterns to be used and to adjust the controller such that human participants feel comfortable with their part.

The resulting process is a negotiation and not the coagulated product of a compromise between material and form, but the realization of this process in conjunction with the perceiver. From the point of view of the perceiver the interaction will be experiences as oscillating between an active and a passive role in the interaction.

We will present first results and analysis obtained in a system that receives information about the participant via a kinect sensor tracking arm and body movements. In addition to the interaction of one or more human participants with actively controlled body images that is displayed on a screen, we study also the interaction with abstract patterns and an self-organizing artificial life system that can be guided via a touch screen. We are interested in artistic produce, implications on human perception and applications in entertainment.