

The Organism as Networked Object: Cognitive Perception and Organization as Applied to Living and Non-Living Processes.

by

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ABSTRACT

The integration of living and non-living is the central focus of this thesis. The projects are studies of interaction between people and machines, and living plants and machines. Additionally, the mediation of information by a machine between people and an environment or a living plant and its environment is of topic. By implying interaction, this work also serves as a discussion of the social-political mechanisms of communication and perception. What I hope the reader will take away from this critique is the thought of why humans are the way they are, not in a psychological sense, but in the way culture or societies are influenced by technology and are organized thusly.

While language allows articulation and communication of thought, it also defines parameters for how life is structured and the relationship between the self and the other. The symbols inherent in speech can be translated into perceptions of the self. Within communication, the contextual implication of encoding and decoding information, there is an intelligence that is applied from one's perception. This intelligence is synthetic, involving the creation of possibilities and combinations.

The intent of this artistic research was to give a user the means through which to examine their knowledge of the self as cues provided through feedback. The gradation between a user's understanding of their contribution via sensor input and the response given by the machine creates a pattern of engagement. The closer the expected response is to the level of feedback given, the more aligned such an action will become with future events. Memantics is an area of study concerned with how consequence leads to action through the encoding and decoding of information in the communication process.

The integration of hardware and wetware is the final component of this thesis. The example projects are explorations into harmonizing living organisms with machines. The effect of evolution on chaotic or catastrophic system theories is examined through the construction of sustainable living environment. These environmental plant systems are capable of responding to growth changes and conditions, which drive mechanical behaviors.