Complessità – a Human at the Mercy of Complexity

Mila Tenaglia (April 14, 2016)

Complessità is a performance, conceived by Italian designer and digital artist Enrica Beccalli, that is a journey into the beauty of complexity and our role within it. In collaboration with Roula Gholmieh it will be the closing act of the 2016 TFI Playground exhibit at the Tribeca Film Festival, April 16.

The performer is at the mercy of complexity thanks to a wearable device that affects his movements by modifying his equilibrioception (sense of balance) according to the movements of an algorithm that visually simulates a flock of birds.

Complessità is an innovative Interactive Dance Performance that invert the traditional human-machine relation: the human loses ownership of its movements and we enter a new dimension where the machine computes the moving human body. The interaction between human and machine

loses its unilaterality and becomes (finally) mutual. (watch the video [2]). With this installation I want to raise awareness of the possible role of technology in modifying, altering and conditioning our behavior on a physical level.

This project aims to show the beauty of complexity by letting the spectator explore the relation between singularity and collectivity, individuality and community, the part and the whole. The human figure and body movements are explored through a transposition from virtual to biological. Singularity and collectivity operate across both biological and computational contexts creating a visible manipulation of corporeal relation human-technology.

Why a flock of birds? This algorithm simulates the behavior of a flock of birds. Flocking behavior is exhibited when a group of birds, called a flock, are foraging or in flight. This pattern parallels the shoaling behavior of fish, the swarming behavior of insects, and herd behavior of land animals. In studying flocking behavior, it becomes clear there is no central control; each bird behaves autonomously.

In other words, each bird has to decide for itself which flocks to consider as its environment and looks to the behavior of its fellow birds to determine its own. Humans are animals, too – collective animals at that. We flock. We look at the behaviors of others before acting ourselves and rely on the group when we don’t know what to do. However, due to the expansive scale of humanity, this result is not at the forefront of our consciousness.

As a result, we as human beings are incapable of perceiving society as the sum of all behaviors as opposed to the actions of us as individuals. As Aristoteles said, “the whole is bigger than the sum of its parts” an idea that encapsulates how humans are limited and extremely self-destructive. In this concept you can find the heat of this project – making complexity readable and understandable. Understanding complexity means understanding life as a whole and our role within it.

The performer is being connected to the flocking algorithm through a Galvanic Vestibular Stimulator (GVS). The flock direction is transposed to the performer through two electrodes positioned on the back of each ear. The electrostimulation of the inner ear causes an involuntary and immediate modification of the body direction by stimulating a specific nerve that maintains balance.

This technology has been investigated for both military and commercial purposes but I want to explore its effect on performing arts as a new typology and most of all to stimulate a discussion on human-computer interaction. The result of this electrostimulation of the inner ear is painless but dramatic.

Complexity is what govern us and our behavior, but its intangible characteristics make it very hard for us to understand and perceive that we are part of a whole and that there is a complex continuity of human nature with the natural world. We tend to live and see life through a micro-scale without considering the impact of our behavior on a bigger scale, which is what influences our lives.In this performance the relation between individual and collectivity, the part and the whole, gains a legible scale: we are nothingness at the mercy of complexity.

complexity

Links
[1] http://108.61.128.93/files/complessita1460671347jpg
[2] https://vimeo.com/154738023