

Robotic Performance Art

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The term Robotics was first coined by Asimov's in his science fiction novels. He was referring to machines imitating humans by virtue of three basic laws [1]: it will not hurt humans, it has to obey them as well as protect its own existence. Asimov's sci-fi definition of robotics has been extended in the academia with STEM aiming to automate or substitute various tasks and processes performed by human beings. It is rather interesting to note that originally their conception was fictionalized in the realm of the imaginary before being embarrassed by science with the technological maturity. Robots are created by multiple mathematical, mechanical and biological models found in nature. They are leaving a unique trace of our cultural and political values. In the United States, the robotics technology funding is mainly coming from the military organisms such as DARPA known notorious for their robotics challenge. As discussed by B. Walter in "The Work of Art in the Age of Mechanical Reproduction" [2], the military origins of technology are dissimulated. Their true intentions are disguised by the aestheticization of war by providing reassuring attributes to a mechanical process simply following orders. The commonly utilitarian performance in the robotics applications brings to question the kind of human footprint we as humans wish to leave predominant in our future creations.

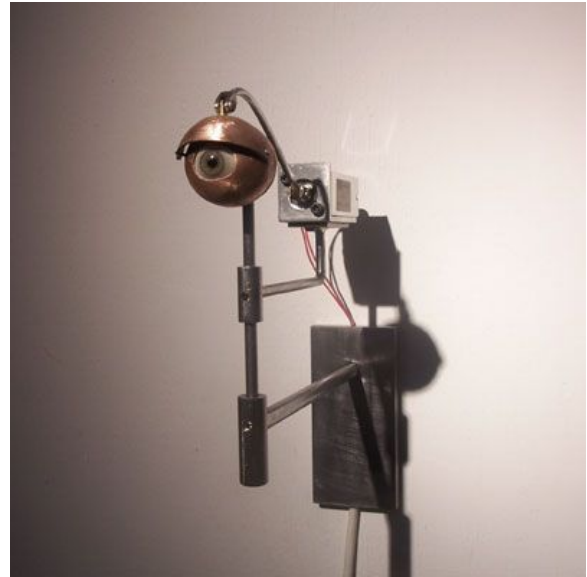


Edward Ihnatowicz is claimed to be the first appearance of the Robotic Performance Art. He created Senster, a robotic sculpture tuning on the crowd behaviors. As means of interactions, it captured the low frequencies of sound with microphones as well as slow people's movements using Doppler radar sensors. Individually, visitors could not see their behavior interactions as a whole. The unclear behavior based on the slow pace interactions with the crowd created an imitation of much higher intelligence than intended originally by its creator. It is interesting to consider the tension between the interpretation of the surrounding senses and the act of imitating theatrically. The uncanny effect of the humanoid robots is often depreciated by the general public. Furthermore, recreating an exact imitation of a human being is rather deceiving creatively. Ihnatowicz illustrates in a very subtle but clear way the difference between robotics in engineering & art. The unique performance created by the Senster's sculpture explores

creatively the act of imitating without the bondage of the military origins attached to the robotic technologies. This robot has its own stylistic shape as well as a unique sensory interpretation of the gallery space. In fact, the low frequencies are present all around us. However, these type of sounds and motions are very hard to distinguish in a crowded environment of a gallery space. Therefore, Senster underlines the unnoticed vibration created by a group of people acting as a whole.



The “Petit Mal” by Simon Penny recreates an autonomous and theatrical robot with machine aesthetics of the body. This moving robot charms the visitor by interacting with its body motions in a bi-directional way. The user can either walk away and be followed or come closer and be moved away from. By imitating the Turing Test [3] where an interrogation of the machine and human is taking place in an undisclosed environment, the robot analyses the outcome by dissimulating the automation of a non-intelligent system. By this interaction, the “Petit Mal” charms the user and creates an imitation of a living creature. The autonomous interactions of the robot recreates the theatrical performance of a mouse-cat hunting and be hunted role playing. It contributes to the intimate nature of the “Petit Mal” performance act.



In the same line of thought, it is crucial for an artistic sculpture to stay actualized by engaging critically the “People & Space” [4] in their respective cultural & ethical contexts. Jim Bond engages the issue of privacy in a very playful way with his work of “Blink”. In this work, the human eye extends the camera by reversing the common relationship between the observer and the observed. The video camera serves as an actuator to the blink of the eye to illustrate the real intention hidden behind the medium that is being naturalized by the society values.

The machines were designed to be rational. This idea has its roots in the European enlightenment and the faith put in John Neumann computer architecture found in almost every Operative System of a robot’s “mind”. However, Kurzweil argues in “The Computer and the Brain” [5] that this model is an inaccurate imitation of the nature. In fact, the neurons transmitting data have a very high latency, delay and they are only able to transmit so much data due to parallelism and clusters. This flaw is interesting to underline because the nature doesn’t act in a predefined way.

It does not provide the instructions of what to produce but rather a generic summary to follow. The exploration of the robotics performances in art breaks the boundaries of the utilitarian applications without losing their respective meaning by politicizing the art instead of the reverse.

Figures

- [1] Senster, Edward Ihnatowicz, Exhibition ARTBOTS, p1, [online], <http://patchlab.pl/senster-edward-ihnatowicz-exhibition-artboty/>
- [2] Petit Mal, Simon Penny, 1993, p2, [online], <http://simonpenny.net/works/petitmal.html>
- [3] Blink, Jim Bond, Kinetica Art Fair, 2009, [online] <https://lizdeesma.wordpress.com/2011/10/29/jim-bond-sculpture-demi-god/>

References

- [1] “Handbook of Robotics, 56th Edition, 2058 A.D”, Isaac Asimov, NYC, 1950.
- [2] The Work of Art in the Age of Mechanical Reproduction, Benjamin Walter, Germany, 1936.
- [3] “Computing Machinery and Intelligence”, Alan Turing, USA, 1950.
- [4] “People and Space: New Forms of Interaction in the City Project”, Giovanni Maciocco & Silvano Tagliagambe, Netherlands, 2009.
- [5] “Introduction” to John von Neumann, Ray Kurzweil, The Computer and the Brain, London, 1958.