

# DICTIONARY

Version No. 3, 24 November 2018

Tatjana Tanja Vujinović Kušej

## **Anthropomorphic & Abstract Agents**

Thinking about synthetic life forms related to the fast development of technology is part of the long history of anthropomorphisation of non-living objects, including automatons with clockwork mechanisms, movable sculptures, and robots. Always provoking extreme reactions of both utopian and dystopian character, the rethinking of the long development of pseudo-life forms includes rethinking aspects of physical and digital technological being.

Throughout history we have tried to create forms of artificial life that would execute in our name the boring or monotonous tasks, extend our life, and extend our reach in intellectual, physical and sensorial terms. In mythological, physical, virtual, mechanical or the domain of programming of anthropomorphic, abstract machines, and their combinations, these creations appear to become autonomous, from antiquity to today. We pack them with data and meaning in order to have them execute tasks on our behalf. Anthropomorphic machines (as a connection of consciousness with technology) have always been present in art and culture. Human physiognomy, characteristics and behaviour were assigned to a wide range of objects; from deity figurines, to non-living entities, to toys and dolls for purposes as diverse as religion or play. Whether it is art, religion, play or the latest technological discovery or entertainment, these projections of ourselves toward the outside world and shaping these projections into definite or fleeting humanoid forms have helped us move forward. Sometimes shaped and devised to function like an organism, software interfaces or telecommunication systems are based on metaphors of the human body. Through the whole of history, including today we are packaging data in anthropomorphic forms (as well as combinations of anthropomorphic and zoomorphic ones) as part of the process of conquering and the humanization of our surroundings. Mythological and religious statues and statuettes, homunculuses, Frankenstein's monsters, automatons and robots, computer viruses and programmed personal assistants all belong to a wide but similar family of objects, ones gaining wider applicability and presence since they too possess inbuilt additional life in the form of computer programs. From benign algorithms to viruses, worms and Trojan horses, abstract digital machines are omnipresent, and their external shells, housings or bodies are combinations of static and mobile hardware and operational systems. Anthropomorphisation related to computer programs is happening on one level within so called Eliza effect, which got its name from the chat bot Eliza, and it tells us precisely that we subconsciously assume that the behavior of computer programs is an analog to human behavior and reasoning. On the other hand, activities within the field of visual representation of humanoid agents are described through the Uncanny valley effect of Masahiro Mori, where a roboticist evaluates the degrees of imitation of physical characteristics of 3D simulations of human physiognomy (and within this scope also physical robots supported by engineering and software), as well as the degree of our willingness to accept those simulations.

Abstract agents are also here, intertwined within our operating systems, in our

software, invisible, but always present. They are small machines within larger ones, creating and sorting noise at once. In cyber-worlds they generate clouds, they form flocks and simulate groups of people. They search, collect and sort data.

Special focus on both abstract and anthropomorphic machines within my work is where these notions overlap and expand towards the technological uncanny, the contemporary media of memory, data storage, and the differences and similarities between human and machinic perceptual apparatuses.

Throughout history, the emergence of every new form of media has provoked a variety of ambiguous responses within society. Just as the technological “uncanny” emerged as a reaction to electrical tools, photography, and telegraphic communication, nowadays it appears as a reaction to the latest digital tools.

These streams and segments of contemporary technologies are located in computational black boxes, within programmed overlapping streams of algorithms, in deep webs of social media and other dark corners of the internet, within semi-functional left over satellites and other forgotten technological junk, in-between software updates and in archived software, among many other places.

### **Randomness & Noise**

The exploration of the poetry of noise is one of the most significant aspects of my work, where I explore the structures of noise or randomness that here serves as a vehicle towards mutations and unexpected.

Noise might be seen as a vehicle towards mutations and poetics within the digital and electro-acoustic world, where, as some sort of an agent of serendipity, it enables new discoveries. Noise as a primal principle, such as Brownian noise, is one of the structural rhythms of nature and social emergencies, and when transferred to the domain of the digital, it has long served as a tool in forms of various algorithms for countless generative tasks that might resemble organisational principles from real life domains of natural or social fields. Within artworks, noise appears as both the substance and as an organizational principle of various digital or physical elements. Noise can be understood as the specific part of the signal that is generated by the communication mechanism itself. The relationship between noise and signal, also inspires my work in a sense that all accidental discoveries and occurrences in previously defined routes of channel processing might represent a new road of development for the whole work or additional substance that adds to the richness of the structure.

Noise occurrences are an intrinsic phenomenon of every channel, virtual or analogue.

Within media arts the elements of noise are the side effect of each tool used, and sometimes they appear in works as either traces, substantial formal elements, or distinct accents with discursive roles.

Vilém Flusser acknowledged that the tendency of all information in nature is towards its diminishment. All information floats on the way to its own extinction. According to him, an impressive example of anti-entropic activity is biomass re-emerging in various shapes and forms, and through these processes of the reproduction of biomass, mistakes, which we can also understand as noise, occur occasionally and grant evolution through the mutation of copies.

Noise, as the negative pole of information, might serve an agent’s critical questioning of the quality and availability of information and its carriers within media arts and society in general. Taking into account the entangledness of information and its material base, the communication noise generated by both the material base of

information as well as its users might lead towards a mode of liberation from destructive "techno-nihilism" through letting in the unknown, the instinctual and experimental content, and openness towards the not immediately perceivable. As Arthur Kroker proposed, the essence of new media art lies in reversing the technological field. The theory of electronic art becomes the art of electronic theory and manifests itself through three "anti-codes". The aesthetics of "digital dirt" becomes the ontology of art, "technologies of otherness within everyday cybernetics" become the political focus, and "digital incommensurability" an antidote to the age of "ubiquitous" and "calm" technology. The resulting digital art, with its technologies of otherness, opposing the "will to virtual hygiene" evokes shocks of excitement through the cracking, humming, and digital static of microcircuits. As a leading and animating force of digital life, the art of "digital dirt" brings about, as Kroker puts it, waste, accidents, and liquid distortions in systems and mutations, data crashes, and noises in the machines.

### **Art Practice**

My installations are apparatuses for rethinking of society.

Those apparatuses are made of sound, video, drawings, objects, or interactive computer works, that could be understood as anthropomorphic and abstract machines, through which I examine ways of perception and preservation of memory. In my works I explore relationship between human body and technology. I am especially interested in the "uncanny" side of technology, and (new) media technology is simultaneously my subject and my medium.

The work emerges from our ambivalent relationship with our machines and gadgets. Norbert Wiener writes about how machines provoke uncanny cunniness in humans, which is nowadays also applicable to virtual machines. Attractiveness of new technologies, dependence upon them, closeness that is being created with them, are just some among many current themes related to close and complex relationship created through time among people and their gadgets. Anthropomorphic machines (as a connection of consciousness with technology) have always been present in art and culture. Human physiognomy, characteristics and behaviour were assigned to a wide range of objects; from deity figurines, to non-living entities, to toys and dolls for purposes as diverse as religion or play. Regarding material infrastructure of the digital, I am interested in media carriers, heritage, data preservation and cultural memory. In my work I also explore abstract machines - the structures of noise or randomness that here serves as a vehicle towards mutations and unexpected. Noise/randomness and their algorithms appear as both, the substance and as an organizational principle.

### **Discrete Events in Noisy Domains**

Discrete Events in Noisy Domains are a succession of closely related media artworks within which I explored our attachment to gadgets, ambivalence towards technology, and the Internet of Things phenomenon. Objects in the installations were collecting data from the spaces through multiple sensors, yet that fact was mostly ignored by the visitors due to their approachable interfaces.

For most of these works, I made custom software in Max/Msp/Jitter. For Oskop, I used custom made patch in Quartz Composer in combination with Audio Mulch. Within Blipstat, I used data sonification, and in Oscilorama data visualisation and sonification. All works equally question contemporary media channels, glitches, noise, and invisible data trajectories and contain custom or ready-made electronic

devices to form a temporary network of some sort that included the visitors. They are, in a way, transitory mappings of data fluxes and their oscillations and trajectories. Sometimes they were materialised as random locations of info-dust or anthropomorphised data-emitters, ranging from audio-visual installations and reactive environments to installations in public spaces, allowing visitors and passers-by to participate in the audio-visual reverberations. Works that belong to the Discrete Events in Noisy Domains series, as generative temporary probes and as transformative structures, dissect some of the hidden layers of technology. The questions that these works open are, in my opinion, important and relevant questions regarding tweaking, networking, and sampling of contemporary media tools with all of their data-flows, channels, and grains of signals.

### **Universal Objects**

Environments from the Universal Objects series are non-narrative, endless surroundings made of three-dimensional objects. Some of them behave like automatons and perform minimal gestures. Most of these works are made in game engines and refer to the many questions this procedural, generative medium opens regarding its usage and the content it usually conveys.

Infinite space, abstract objects, or humanoid representatives are constantly drawing us back to their origin of raw, generated, digital materiality. These objects are simultaneously actual, real, present, and absent through their ethereal being.

The 3D objects are dynamic, transformative objects holding the possibility of infinite performative action. They act algorithmically – whether to propagate site traffic, advertise, seduce or represent us – while being our own digital ghosts and fetishes. The medium of game engines and three-dimensional objects within the Universal Objects series involves exploration of the “matter” they are made of by opening them up, turning their structures inside out, and testing their clashing behaviours.

Exploration of noise has been present in my work for the last twenty years. Over that time the scope of approaches to analysis has expanded – from information noise as a cultural phenomenon to materiality of analogue noise, to noise versus signal in relation to anthropomorphism.

Various algorithms of noise might be understood as the base of the many elements of the digital world. Noise might be a tool that leads to new discoveries and mutations, subversively enabling insight into otherwise invisible streams of signals. Contrary to some other works where noise is almost totally abstract, within the Universal Objects series algorithmic noises, broken objects, their deformations and mutations sometimes gain humanoid shapes in various situations and dynamic environments.

The name of this cycle arrives from archetypical objects that are readily available within databases of objects – how users approach them, how they change and are filled with projected consciousness, with functions, and what roles they are assigned within digital worlds, and how those objects perform within these constellations.

Game engines are generative, procedural, virtual machines within which are numerous smaller machines operating behind the curtain. The larger part of this machine is invisible to us because it operates within a “black box” surrounding, usually of no interest to the average user.

### **MetaGarden**

In “MetaGarden”, we actively engage in the post-digital panorama and our expanded nature, contemplating and recreating various technological amalgams of ourselves

and our worlds. "MetaGarden" is always returning to the key questions of recreation and recycling. Recycling is the second life of materials, objects, and flows of nature. It is about update, reuse, renewal, and revival of the existing recipes, poetry, algorithms, and data streams. It is about the domes of the future, reuse of plastic and other waste, but also about smart implementation of streams of data and algorithms captured from the technologically expanded nature and used for rethinking the environment.

### **Media Art**

Media art, the field in which I am active as a practising artist, offers the platform for analysis, critique, and the humanisation of technology while practically and theoretically dealing with media and information technologies. The contemporary media artist, who nowadays has tendencies towards involvement with various social and technological spheres, incorporates the further roles of "researcher, inventor, hacker, and entrepreneur" according to Stephen Wilson. Bruce Sterling understood electronic multimedia arts as "the nervous system of the information society, the laboratory of information science, the battlefield of information warfare, the marketplace of the information economy".

Umberto Eco understood that the work of art is a balanced and organic whole, while every perception of it is in a way a performance of the work in a fresh interpretation. Media artworks can be understood as oscillating events. Media artworks are, in the words of Roy Ascott, focused on behaviour and not form while enabling the interrogation of probabilities by the visitor/spectator/user. These resonating events provide fields of social interplay that hold potential for the generation of new experiences and knowledge, where full realisation of this potential is conveyed by the audience. Media art is directly related to contemporaneity. The complex contemporary world of the manic development of ever-new technologies, fast-paced production and consumption, and the unprecedented speed of information technologies and communication tools are directly influencing our lives and changing our environments. The pace of development and use of electronic gadgets and personal computers is set by the global industry, while our daily experiences are directly shaped by the ideologies built into the technologies we use.

Media art is just one of the many expressions for this area of human activity that has been in constant development over the last couple of decades and one which has roots in various art phenomena of the twentieth century, starting with early experiments of artists whose work is related to Dada and Bauhaus movements, Lettrists, sound artists, and the early video art of the sixties and seventies of the twentieth century.

Today, media art is a whole scope of works and approaches that open up questions of post-digital life on the Internet, everyday co-habitation with computers and gadgets, works that deal with questions of mixed and augmented reality, robotics, the Internet of Things, computer games, and various interdisciplinary projects that are forming unprecedented bridges between disciplines. As a relevant factor shaping our lives, new information technologies and computer systems along with all of the ideologies that they convey are exceptionally curious areas for analysis and consequently development of contemporary art.

### **Theory**

The key theoretical concepts influential to my work include: Vilém Flusser's understanding of the relationship between people and technology reflected in his notions of functionaries and playthings, and his views on nature and culture; Norbert

Wiener's uncanny canniness that reflects complex entanglement of human being and technology; Sherry Turkle's notion of "object-to-think-with" as an analytical approach to placement and logic of elements within installations; Jean-Luc Nancy's view of "synaesthetic touch", i.e. bodily relation to the surrounding field of vision that becomes the field of "touching", "tasting", "sensing", and "meaning", as well as his view of contemporary lifeworld as the grid of ecotechnics, where linearity is replaced by multiplicities; Peter Lunenfeld's real-time theoretical approach, hyperaesthetics, and a hybrid temporality as "digital dialectics" that could potentially enable a realistic analysis of the production and consumption of new technocultures and media technologies.

## References

Vujinovic Kusej, Tatjana. Info-Noise Art: Concepts, Tools, and Environments of Media Art, Ph. D. Dissertation, Postgraduate study program: Philosophy and Theory of Visual Culture, Koper, <https://share.upr.si/fhs/PUBLIC/doktorske/Vujinovic-Kusej-Tatjana.pdf>, January, 2010.

Vujinovic, Tanja. "Tactile Nodes: Aesthetic of discreet events in noisy domains", Leonardo Electronic Almanac, Vol 16, issue 4–5: Dispersive Anatomies, Cambridge, MA, USA: MIT Press Journals, ISSN: 1071-4391, USA, Sep 11, 2009.

Vujinovic, Tanja. Online artwork database of media artist Tanja Vujinovic "Ultramono", <http://www.ultramono.org> accessed 29.6.2017.

Wiener, Norbert. God & Golem, Inc. A Comment on Certain Points where Cybernetics Impinges on Religion. Cambridge, Massachusetts: The MIT Press, Massachusetts Institute of Technology, 1966.