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## **Artificial intelligence (A.I.) and Art**

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## **SUMMARY:**

Technosphere is characterized by a switch from nature into a new, machine operated, realm of technology. What humanity is facing in its modernity is the transition from a human to a posthuman state of rule which is run by artificial intelligence (A.I.) and performed by artificial life (A.L.). In his work “The Inhuman”, Jean-Francois Lyotard reflects on the dominance of a new logic of techno-science over mankind. That notion binds the idea of the end of mankind as we know it. Technology is not neutral, it’s not simply a way of transmitting information in the service of mankind, it’s more than that, technology forms its new own being and with it a new technological language. Contemporary society is no longer determined by the concept of the spirit, or what Walter Benjamin calls “aura”, but rather by the logic of techno-science in its total rule over the entire space and time of the world. With the technologies of the new digital era a new question arises in the field of philosophy of art which until their appearance was considered as sublime. Artificial intelligence (A.I.) and artificial life (A.L.), through the connection of biotechnology and computing machines, appear as a new immaterial creation of life. Their space of action is virtual space, their time of action is instantaneous.

**Key words:** *technosphere, humane, inhuman, artificial intelligence (A.I.), artificial life (A.L.), art, aesthetics*

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## 1. INTRODUCTION

Jean-Francois Lyotard places before us a new set of issues that humanity is facing in its modernity. Those issues manifest themselves in the form of increasingly rapid development and dominance of modern techno-sciences, i.e., the inhuman over the human. Lyotard had previously dealt with this issue in his work entitled "The Postmodern State", but he now abandons the optimistic views made about the irreducibility of plural cultural and linguistic worlds in the age of techno-science. He looks at the possibilities of mutation by developed artificial intelligence systems (A.I.) into even greater degrees of self-organization until the possible outcome of it developing its own consciousness. Reflecting on the rule of the logic of techno-science, Lyotard indulges in the ultimate anxious pessimism, which binds to itself the end of mankind as such, the end of history, and the beginning of a new state that we call posthumanism.

Walter Benjamin places spiritual energy which he calls "aura" at the center of attention in his 1935 essay named "The Work of Art in the Age of Mechanical Reproduction". The essay seeks to combine that what's physical and provable with what's ineffable and metaphysical. With the new absolute predominance of techno-science, the ontological understanding of both the physical and the metaphysical is called into question. The issue of placing technology and techno-science as a new being is raised before humanity as artificial intelligence (A.I.) and artificial life (A.L.) are starting to be understood as the only and necessary salvation for the human evolutionary limit.

With new technologies comes a radical change in the human cultural world. The last place of resistance to a notion of life as a computer operated machine, and its bio-scientific production, Lyotard sees through the unrepresentable and sublime in art. From the very beginning of the modern age, and especially at the beginning of the 20th century with movements such as the historical avant-garde, art has thematized the feeling of distress before the technical creations of the world.

The art installation of the new digital age has become interactive and it marks a turning point in the way contemporary art is perceived. With computer technology, the image has become an immersion placed into a virtual space. The problem arises in determining the cybernetics, as the system and the environment of the technosphere are constructed by connecting nature to the artificial creations of life.

## 2. JEAN-FRANCOIS LYOTARD AND THE INHUMANE

Jean-Francois Lyotard thought of the postmodern era as freed from the service to ideology, but only a decade later, in his work "The inhuman", he discusses a new set of problems that humanity is facing with the rapid developments of the new technologies. In the work, Lyotard expresses his fear about the possibility of a new, computer dominated, way of life. He calls for the human awareness on this issue and wants to start an active campaign against the logic of techno-science and everything related to it before it overshadows humanity. Lyotard believes that the task of the writers and philosophers is to address this issue. Whether we are aware of it, or not, the fact is that the inhuman managed to infiltrate itself into all forms of our daily life to a rather large scale by replacing that what's human with the technological.<sup>1</sup>

Artificial intelligence (A.I.), in its beginnings, needs humans to progress, but after it's established, it can continue on its own. It's obvious that the A.I. of today is more and more independent and can work without human help with its own internal dynamics. Soon, computer viruses will mutate into complex formulations that will be increasingly difficult to trace and increasingly difficult to stop. The theory of complexity talks about the possibility of mutation of developed artificial intelligence systems (A.I.) into even greater degrees of self-organization, until the possible development of its own consciousness. At that stage of development, we would no longer consider it as artificial intelligence (A.I.) but as artificial life (A.L.) as it would encompass the areas of software simulations, robotics and bioelectronics.<sup>2</sup>

The power of technological progress reduces the notion of thought as the one which has already been altered by a computer. Cybernetics began its turn of the entire metaphysics, that is, towards the classical ontology of thought, with the idea of a machine that creates a "new nature". Such a machine is not determined by natural laws, therefore the dream of a "perpetuum mobile" takes on an achievable form. It is entirely possible that complex systems such as nanotechnology, robotics and nuclear energy can function without direct human intervention, and without human as the one who supervises the processes, thus, multifaceted and multilateral control over the matter and energy can be created.<sup>3</sup>

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<sup>1</sup> Sim S., Lyotard and the Inhuman, Icon Books, United Kingdom, 2001, pg. 5-9

<sup>2</sup> Sim S., Lyotard and the Inhuman, Icon Books, United Kingdom, 2001, pg. 20-24

<sup>3</sup> Paić Ž., Tehnosfera II., Sandorf, Zagreb, 2018., pg. 88

The moment artificial intelligence (A.I.) completes its linear-circular progress and development, it no longer has an external-internal need for traditional ontological basis, be they called God, the creator or the nature. Autonomous cybernetic objects created by the work of the virtual network are already in use everywhere. More and more they are becoming part of our everyday life, from drones to robotic vehicles, from laser visualization technology to quantum computers that have the ability to independently transfer information and create new programs.<sup>4</sup>

Pessimism and tragedy have always been the stimulus for creating great art, and what is true for art is also true for philosophy in overcoming the boundaries established by language. Towards the end of his life, Lyotard did not become disappointed and pessimistic by considering the development of technology, artificial intelligence (A.I.) and artificial life (A.L.), but only radicalized his postmodern thoughts about the nominality of identity and language against the technical character of thinking under the influence of contemporary techno-sciences.

Lyotard is the founder of the term "postmodern condition". The term postmodern, contrary to all the wrong interpretations, primarily refers to the interpretation of culture in the post-industrial and information driven society at the end of the 20th century. Thus, postmodernism is a state, not an epoch, because it is not a newly born stylistic period in the visual arts. At the beginning of the century, the historical avant-garde radically broke the connection art had with the mimesis and the representational image, and instead of stylistic uniqueness, it turned into a philosophical movement that would lead to a conceptual and performative ways of thinking about art.<sup>5</sup>

The term postmodern state therefore describes the state determined by the rule of ideas or concepts through science and culture. The moment technology becomes the inner essence of scientific research, it's not only the object of research that radically changes but also the subject itself. Technology is not neutral nor is a way of transmitting information in the service of mankind, it is more than that, it forms its own being and technological language.

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<sup>4</sup> Paić Ž., Tehnosfera II., Sandorf, Zagreb, 2018., pg. 444

<sup>5</sup> Paić Ž., Posthumano stanje, Litteris, Zagreb, 2011, pg. 32-34

The use of techno-scientific language within society arises as a consequence of the inclusion of technology into the human life. Thus, the information society is a technological project, and the language of science that determines its existence is already a techno-scientific performative in itself.

The postmodern state has a three-part structure. The first structure tells us how science surpasses the traditionally separated areas of nature and mankind. In it, science does not serve mankind, as in it, the mankind is an extension of scientific research in the service of increasing its physical capabilities. The second structure shows how technology combines the fields of science and culture. In it, aesthetic function comes to the center of information and communication technology. With the technologies of the new digital age, a new question and puzzle to solve opens up, the one that philosophy of art until their appearance considered sublime. Artificial intelligence (A.I.) and artificial life (A.L.) thanks to the connection of biotechnology and computing machines appear as a new immaterial creation of life. Their space of action is virtual space, their time of action is instantaneous. The third structure says that culture is perceived as visualized text that is simultaneously the world of life and the ideological legitimation of the world which enrolls as a performative event. For Lyotard, culture is the irreducible remnant of the world as we know it.

The world is placed between two logics, one of techno-science, and one of the unrepresentability of art. Both are the result of the articulation of science and art into a unique world-making event. The techno-sciences use the universal pragmatics of knowledge, while the arts use the transcendence by means of the sublime. Through the new technologies, there is a radical change in the cultural world of life. Technology is the one that now determines the postmodern condition, as well as the very concept of culture. That, by Lyotard's understanding, makes technology the one that makes the concept of culture to appear as inhuman.<sup>6</sup>

Culture is something that brings the notion of sense to the world. With new technologies there is a change in the essence of culture which is made by changing the very own transcendental status of culture.

Thus, the human concept of culture disappears, as well as the very idea of the universal truth. The postmodern state marks the end of modern society with the expansion of the information age.

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<sup>6</sup> Paić Ž., *Posthumano stanje*, Litteris, Zagreb, 2011, pg. 36-41

Lyotard lists the sciences created in the 60s and 70s, and all of them are on the other side of the duality of nature and culture, society and technology. They consist of: cybernetics, informatics, communication theories, computer languages, semiotics and mathematical theories of communication. The nature of man in the postmodern state cannot be completely reduced to a techno-scientific language, but there is a realization that in it, spiritual and humanistic sciences are no longer viable.

Lyotard gives art the place of the last dam against the techno-scientific rationality of the new age. In his work named "The Postmodern State", he presented a critique of the functional integration of science, technology and education through capitalism. Lyotard claims that techno-scientific codes and models of reality construct a world that in itself does not exist which makes its fundamental assumptions anti-humanist or inhuman. He describes the state of contemporary society, which is no longer determined by the concept of spirit, work, or the psychoanalytical concept of the unconscious as a paradigm of humanistic sciences, but is determined by the logic of techno-science which has a total rule over the entire space and time of the world. The information society is thus a technologically constructed society.

Reducing knowledge to binary codes in all spheres of society, politics and culture significantly changes the status of humans in the postmodern state. This state is a new paradigm of culture and there is a realization that mankind is done in its classic way of understanding.

The technological nature of modern sciences contains the power to rule over humans through surveillance systems which are not hidden. Lyotard talks about the processes of dehumanization as they take place systematically through the action of techno-science and computerization of the entire life. Replacing living with technical means replacing life with artificial life. The question of humanity and its survival stems from the question of its historical meaning. Techno-sciences can be used to answer this question. The answer is not only of a philosophical nature, but primarily of a new interdisciplinary nature, which is led by science and is called posthumanism and transhumanism.<sup>7</sup>

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<sup>7</sup> Paić Ž., *Posthumano stanje*, Litteris, Zagreb, 2011, pg.. 42-51



Mankind is facing the question on how to deal with the notion of inevitable explosion of the sun in 4.5 billion years which marks the end of life on Earth. The fundamental problem is what will survive from humanity. Techno-sciences work to extend biologically conditioned life in the form of artificial intelligence (A.I.) as a post-human body. This is the body that Lyotard calls the inhuman and monstrous, his relationship to it is a radical resistance to the reduction of life as form of technological programming. For Lyotard, man with his mind and body belongs to the Earth and cannot be separated from it, even with the new experiments of techno-science and the breakthroughs made by bio-genetic engineering.<sup>8</sup>

The thermodynamic balance in the universe leads to the thermal death of the universe, thus, nature itself breaks down in its sustainability. That way the only thing left is the technosphere or biocybernetic transfer of information that takes place through the transition from nature to a machine. The transition to the posthuman signifies the rule of artificial life (A.L.) based on the work performed by artificial intelligence (A.I.). To put simply, an artificial brain controls an artificial environment. Thus, cybernetics does not only strive to overcome and put an end to metaphysics, on the contrary, its task is to establish a "new absolute".<sup>9</sup>

When Lyotard opposes techno-science, he actually opposes artificial intelligence, in which he sees the main problem of stepping towards the inhuman. Artificial intelligence (A.I.) raises a new spectrum of advanced life form and questions our place on the planet and its resources. By raising artificial intelligence (A.I.) to a higher level of development, the nature of the inhuman becomes, in every sense of the word, a vital question for all of us. No one could remain indifferent if such an existential problem would have arisen. Living with the inhuman, as we do now, is one thing, being subordinate to its will, is quite another.<sup>10</sup>

The world in the age of global techno-scientific civilization is putting an end to the previous conception of what it means to be a human. It is possible that the notion of aesthetic, and the classical concepts of the beautiful as the sublime have already entered a posthuman state. Lyotard only develops his own thesis about techno-scientific power and its relationship to art in the posthuman state. In his writings of what happens in the posthuman state with the humans and the Earth as the consequence of the techno-scientific breakthrough, Lyotard could not avoid the abyss of separation of science and art as the model for artificial life (A.L.).

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<sup>8</sup> Paić Ž., *Posthumano stanje*, Litteris, Zagreb, 2011, pg. 51-53

<sup>9</sup> Paić Ž., *Tehnosfera II.*, Sandorf, Zagreb, 2018., pg. 71-72

<sup>10</sup> Sim S., *Lyotard and the Inhuman*, Icon Books, United Kingdom, 2001, pg. 9-10

He raises the question of the meaning of life outside the body in the form of artificial intelligence (A.I.). Lyotard writes about the relationship between the techno-scientific discourse of posthumanism and the philosophical irreducibility of art. He leaves a melancholic tone with a thought that the inhuman will occupy and insert itself even into places that has always made us human.

Techno-sciences are gradually turning the possibility of thought outside human body into reality through their research and development of artificial intelligence (A.I.) and artificial life (A.L.) as an immortal body in the form of a machine. That machine has its own programmed technical language, like the one of the computer named Hall in Kubrick's film "2001: A Space Odyssey". Thus, for Lyotard, what is the irreducible remnant of the human cannot be programmed. What he opposes to the binary codes of the techno-scientific language of virtual reality is that there is an irreducible remnant of humanity that is bind to the flesh. Feelings like suffering or pain belong only to humans, and therefore it is human what thinks, suffers and sympathizes.

Lyotard sees the last place of resistance to the reduction of life to a computer machine through the unrepresentable and sublime in art. Art, from the very beginning of the modern age, especially at the beginning of the 20th century, with movements such as the historical avant-garde, thematizes the predicament before the technical creation of the world. We can see this in the works of Duchamp in conceptual art, Malevich in painting, Kafka in literature, Beckett in theater, Schönberg in music, Courbisier in architecture and Fritz Lang in film.

What is sublime in modern art, especially in the art of the historical avant-garde, is the experience of the monstrous. In conceptual art, we can see this on the example of Duchamp's work named Fountain in which he ironically presents a ready-made object as an aesthetic object. In this sense, every object regardless of its symbolic meaning may become a work of art, which points us to the thought that the world does not rest on the idea of beauty, but rather on the principles of techno-scientific construction. As already stated, postmodernism is not an epoch, but a state that presents the issue of temporality as a central issue in the art of our time.<sup>11</sup>

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<sup>11</sup> Paić Ž., *Posthumano stanje*, Litteris, Zagreb, 2011, pg. 53-59

Using examples from contemporary art, it is shown that its essence carries the same concepts as science and philosophy. It is certain that the works and events of contemporary art are no longer presented as beautiful and sublime, but as aesthetic objects or ready-made products in the new industrial environment. Contemporary art explores the non-human in the form of aesthetic events. The division of contemporary art into installations, performativity and conceptuality is nothing more than the dematerialization of an aesthetic object, as the idea as a concept goes beyond the well-known concept of the beauty and divine.

As we know, fundamental categories that form the technosphere are calculation, planning and construction. In the year 2000, American artist Ken Rinaldos made an artwork entitled "Autopoiesis". The work gives a clear insight into the cybernetic framework that is used as a research method and as an experimental project in contemporary art. His installation addresses the artificial life (A.L.) and in it visitors get an important role which is the examination of the collective behavior of the machine. The position of the machine moves from passive to active depending on the movement of the visitor. Each such interactive installation questions the relationship between biological and technological life.

If every art installation of the digital age is interactive, it marks a turning point in the way contemporary art is perceived. With computer technology, the image becomes an immersion in virtual space. The problem lays in determining the ontological difference between digital appearance and objective reality. System and the environment in technosphere are constructed by connecting nature to the artificial creations of life. What contemporary science, philosophy and art deal with when it comes to artificial life (A.L.) can be explained by the technology of life itself, created in another form from which self-organization, self-reference and self-management emerge, which is the way the idea of autopoiesis works.<sup>12</sup>

In order to be able to talk about the sublime in art as the salutary aesthetic of liberation from the monstrous functionality of the technological world, it is necessary to think about what is its final purpose. The difference between human and inhuman is already in the purpose between those two worlds as well as in the concept of temporality. Art tries to find the hidden puzzle of its own event and meaning in time, while techno-science tries to solve the puzzle of time by reducing it to a mathematical-physical problem.

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<sup>12</sup> Paić Ž., Tehnosfera II., Sandorf, Zagreb, 2018., pg. 46-49

There, you can see the difference between the world of life and the world of systems. The language of art differs from the language of systems in its worldly possibilities.

Looks like the thought can continue on even without humans. The contemporary posthumanist bio-science advances in this realization. Robotics and nanotechnology enable the creation of a more perfect and resistant body, however, for Lyotard thought is only embodied in the living, breathing, flesh of the body. The problem of the survival of humanity in the form of virtual artificial intelligence is primarily a question of the meaning of life, the meaning of what it means to be a human in a posthumanist era, and the role art has in its new environment.<sup>13</sup>

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<sup>13</sup> Paić Ž., *Posthumano stanje*, Litteris, Zagreb, 2011, pg. 60-61

## 4. CONCLUSION

The new world of global techno-scientific civilization is ending the previous understandings of what it means to be a human. By entering the posthuman state, the ontological understanding of aesthetics as beautiful and sublime has been altered. Lyotard only developed his own views on the notion of techno-scientific power and its relationship to art, as well as what happens to the humans and the Earth under techno-scientific influence. He raises the question of the meaning of life if thinking, as such, can continue to exist outside the human body in the form of artificial intelligence (A.I.).

The relationship that has been established between the techno-scientific discourse of posthumanism and the philosophical irreducibility of art leaves a melancholic impression that the inhuman will inhabit the place that has always made us humans. For Lyotard, the irreducible characteristics of makes us human cannot be programmed. What he finds the binary codes of the techno-scientific language and virtual reality cannot replace is the irreducible remnant of the humanity that's placed in the living, breathing, body which can feel happiness and joy, suffering and pain.

With the examples of conceptual artworks, such as Duchamp's "Fountain", we can see how an object, regardless of its symbolic meaning, becomes the work of art. That points us to the thought that the world no longer rests on the idea of sublimity and beauty, but on the principles of techno-scientific construction. The technosphere consists of calculation, planning and construction, so it is certain that the works and events of contemporary art are no longer presented as sublime and beautiful, but as ready-made aesthetic objects of the new industrial environment.

Installations, performativity and conceptuality are nothing but tools used to dematerialize an aesthetic object, so the idea of a concept goes beyond the well-known notion of the divine and beauty. The visible difference between the human and the non-human is already in the purpose itself which is situated between the two worlds. Art tries to find the hidden puzzle of its own creation and meaning, while the techno-sciences try to solve the puzzle of time by reducing it to a mathematical-physical problem. A thought, in some new form, may live on outside the body, but the aura is only tied to a living, breathing, human flesh. The problems that humanity is facing are the one of the meaning of life, meaning of what it means to be a human, and how to view the role of art in the posthuman era.

## 5. LITERATURE

1. Sim S., Lyotard and the Inhuman, Icon Books, United Kingdom, 2001.
2. Paić Ž., Posthumano stanje, Litteris, Zagreb, 2011.
3. Paić Ž., Tehnosfera II., Sandorf, Zagreb, 2018.