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WHEN MACHINE AND HUMAN MEET. ART IN THE AGE OF ARTIFICIAL INTELLIGENCE

Abstract

This article touches on the issue of human-technology relations in the age of artificial intelligence. It poses questions about the changes that have taken place in the field of art under the influence of advanced machine learning systems. The last decade of AI's successes enforces the need to rethink the aesthetic categories, including an attempt to redefine the place and role of the artist in a technologically determined reality. The cited historical examples of aesthetic reflection accompanying computer art of the 1960s largely anticipated the changes taking place today, while also serving an important metacritical function. Today's critical AI art can play a key role in raising awareness of the processes taking place and uncovering the workings of artificial intelligence algorithms, which are often locked in black boxes and their operations and assumptions inaccessible to human understanding.

Keywords:
artificial intelligence, aesthetics, human-computer interaction, computer art, postproduction, posthumanism

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INTRODUCTION

Nature still outdoes the machine and you helped prove it!
(Astray, 2024)

In June 2024, multidisciplinary artist Miles Astray submitted a photograph entitled *Flamingone* to the prestigious 1839 Awards competition in the Artificial Intelligence category. The surreal image of a headless flamingo taken in Aruba in 2022 won the third place, also receiving the People's Vote Award. This would not have attracted much public interest, had the photograph not in fact been a documentary one, captured without the use of AI systems. In that case, the artist's subversive gesture became a paradigmatic example of an inverse Turing Test, whereby an image obtained using a camera deceives the viewers by asserting its technological "artificiality". This kind of duplicity is reminiscent of the Mechanical Turk, an automaton created by Wolfgang von Kempelen in 1770, which simulated a mechanical, inhuman intelligence; meanwhile, it was a talented chess player hidden inside who made the successive moves on the chess board.

Fig. 1. M. Astray, *Flamingone*, 2024. Photo courtesy of the author.

The case of *Flamingone* is interesting in many respects. Given the current, extremely heated debate surrounding the dynamic development of artificial intelligence systems and the use of machine learning in artistic practices – and more broadly in culture – Miles Astray's award reflects a watershed in human--machine relations. State-of-the-art AI systems are not only capable of mimicking human cognitive activities, but also automate creative processes which thus far have been an exclusively human province, provoking even more social resistance as a result. The fact that AI-generated content may be indistinguishable from the work of a human undermines the long entrenched Romantic vision of art understood as the quintessence of humanity, manifesting in the ability to create unique and original things that is inherent only in humans, (Schelling, 1983). The example of *Flamingone* may be cited along other high-profile and well-known works such as *Space Opera Theatre* by Jason Allen (2022) or *Pseudomnesia: The Electrician* by Boris Eldagsen (2023), which test the limits of human creativity by challenging the myths that have grown up around it. They raise questions about the nature of art and its authenticity in the age of AI (See Krewani, 2024; Szykowna, 2024).

Is the computer monitor today's equivalent of a painter's canvas, paintbrush, or a chisel, a meta-tool which replaces musical instruments while having access to all of humanity's knowledge? It is difficult not to acknowledge the creative capacities of the computer when it effortlessly imitates the styles of the great masters by painting another Rembrandt portrait (*The Next Rembrandt*, 2016), composing Bach cantatas (*DeepBach*, 2016) or completing Beethoven's unfinished Symphony No. 10 (*The Beethoven AI Project*, 2021). Despite such spectacular achievements, artificial intelligence is still very human, dependent on the anthropocentric viewpoint, encumbered by our prejudices which in turn inform its actions. These are still human hands, decisions and choices that shape its development (Crawford, 2021). The media hype surrounding the advances in artificial intelligence makes it all appear more autonomous than it actually is. After all, despite considerable technological sophistication, machine learning systems are not autonomous creative subjects, and entities independent of the human artist which display meta-artistic reference to its creation, nor do they reflect on their actions. Projects concerning the emergence of strong or general artificial intelligence (AGI) resulting in the so-called technological singularity still remain within the realm of speculative narratives, fabricated and amplified by the corporate tech giants that fund its development (including companies such as Google, Amazon, Meta or Microsoft) (Coeckelbergh, 2020). Consequently, the media-fuelled fear of artists being replaced by artificial intelligence seems unfounded, or certainly premature. The previously cited photograph by Miles Astray raises an even more important question than those asked so far in the public debate around artificial intelligence. It concerns the place and role of the human in the new creative environment dominated by

artificial intelligence systems. Indeed, understanding our relationship with technology is key to functioning better in this complex reality, with its increasing ascendancy of algorithms.

An analysis of earlier reflection on the creative use of machines – dating since the late 1950s – offers an interesting context for the present-day AI debate, thanks to which the complex aspects of technological transformation may be better understood. Computer art and the discourse it involved reflected changes in aesthetics and art, suggesting ways to adapt to the new conditions of human functioning, with the premise of *Man-Computer Symbiosis* (Licklider, 1960). Initiated at the time, the process of going beyond the humanist dimension of creative processes gave rise to complex ecologies in which the contemporary human participates. This study will attempt a critical look at such relations, revealing the technological entanglement in the processes that constitute our lives today. Being aware of those processes is one of the major social challenges facing the contemporary human.

GENEALOGIES OF THE NEW AESTHETICS

> If these pictures were done by use of a computer, how could they possibly be art. The idea was ridiculous! Where was the inspiration, the intuition, the creative act? What the heck could be the message of these pictures? They were nothing but black straight lines on white paper, combined into simple geometric shapes. [...] A fake, from start to end, christened as art ...! (Nake, 2002, p. 6).

It is late January 1970, the 67th discussion forum "Opinion Against Opinion" is taking place at the Werner von Siemens School in Düsseldorf. The smoky, packed auditorium witnesses a meeting of two significant figures of the then cultural world, who espouse completely different perspectives and visions of the development/concepts of art. Max Bense, influential philosopher of science, originator of generative aesthetics, and Joseph Beuys, member of the international group Fluxus, author of the concept of social sculpture, discuss creative provocation, the idea of creativity, emphasizing irreconcilable differences of approach to artistic practice. The former's neo-Cartesianism, lined with existentialism, clashes with the latter's alchemical and anthroposophical thinking. The black and white television footage captures the heat of the conversation, conveying the spirit of the time when "art was something important, and engaged discussion demanded sweat and effort" (Pias, 2007, p. 115). Bense fiercely defends the rationalist, mathematical conception of art, attacking the extended definition of the work of art by Beuys, who argues that everything is aesthetic and accumulates in what is human. Both contend the very anthropocentric figure of the artist, who is limited by the horizons of their own

beliefs and entangled in a network of socio-political dependencies. Where Beuys's idea of art fiercely holds on to the human, Bense's responses delve into the premises of creativity that speak of the human limitations, of what is diffuse and subject to ideological, material factors. "If Beuys won this debate", it was only because there was no room yet in the Zeitgeist that he represented for the post-human, technological critique (Pias, 2007; Stewart, 2020).

The discussion cited above was more than just an aesthetic dispute involving representatives of two different worlds (Snow, 1999). That situation was emblematic of the collapse of the modernist project, which was strongly linked to technological development. The modern world would not have emerged without the technological progress which revolutionized all parameters of human life. Driven by the notion, modernism valued machines highly, not only in view of their role in production automation, but above all as an important symbol of the ongoing changes. Futurism was a prime example of such a sentiment, appreciating the energy of technology and modern life. By the 1960s, "the mental attitude of aesthetic modernism had grown old", as Jürgen Habermas observed (Habermas 1996, p. 50).

In the 1970s, the earlier enthusiasm about the rise of the computer's cybernetic capabilities gave way to a technosceptical mood among the public, underpinned by the growing fear of increasing dehumanization and technocracy. The student movement of 1968 embraced unfettered actionism, dominated by the spontaneous models of neo-avant-garde art, which gradually lost interest in technological experimentation that would develop away from the artistic mainstream. That historical parting of ways is well described by Edward Shanken in *Contemporary Art and New Media-Digital Divide or Hybrid Discourse?* (Shanken, 2016).

Max Bense and the artistic-scientific milieu around him – the proponents of information aesthetics (Bense, 1969), affiliated mainly with the University of Stuttgart – saw its relevance slowly wane. The progressive aesthetic views developed jointly with Abraham A. Moles, which drove an exuberant artistic practice in which computer technology was a new medium of artistic expression, were becoming obsolete. The highly controversial theory, informed by the concepts of Charles Morris, Charles Peirce's semiotics, Claude E. Shannon's strictly technical information theory, or Chomsky's generative-transformational grammar aimed at rejecting subjective impressions and opinions in favour of objective rationalism, faded into oblivion, irretrievably losing its utility in terms of knowing.

In the 1960s, the influential theory of information aesthetics inspired artists to create new art based on scientific methods and aesthetic experimentation that integrated technology into the creative process, calling the ideal of human creativity into question. The Stuttgart school became the cradle of computer art, the seedbed of the "algorithmic revolution", becoming known over time as the

"digital Bauhaus" (Ehn, 2002, pp. 18–28). However, the heroic attempt to combine art theory with Norbert Wiener's cybernetic theory found little recognition with the artistic community of the time, for whom the computer was no more than a soulless and mindless tool incapable of creating "true" art. The vision of art as a purely human activity that cannot be automated or programmed was emphatically asserted in the debates. The widespread technophobia denied the pioneering creations by Georg Nees, Frieder Nake, Michael Noll or Bela Julesz the status of works of art. Ultimately, the attempts to have computer art – formally conventional yet innovative since it involved programmable machines in the creative process – acknowledged in its own right failed.

One could say that the meeting between Max Bense and Joseph Beuys somehow symbolically ends the difficult "digital decade" in art (Walewska-Choptiany, 2021). In hindsight, it was not the artistic value of the works created by the pioneers of computer art but the theoretical reflection accompanying its inception that proved to be more important. As Edward Shanken underlines, the meta-critical process,

> challenges the systems of knowledge (and the technologically mediated modes of knowing) that structure scientific methods and conventional aesthetic values. Further, it examines the social and aesthetic implications of technological media that define, package and distribute information (Shanken, 2001, p. 304).

The search for new applications of the computer in the domain of artistic creation was accompanied by the need to devise corresponding aesthetic/cognitive models that would anticipate the inevitable changes. Thus, Bense's reflection paved the way for a new notion of art that went beyond the human confines, leading to the emergence of new posthumanist ecologies over time.

FROM OBJECT ART TO INFORMATION: JACK BURNHAM'S AESTHETICS OF INTELLIGENT SYSTEMS

> *We are now in transition from an "object-oriented" to a "systems-oriented" culture* (Burnham, 1968, p. 31).

The cover of the catalogue for *Software: Information Technology: Its New Meaning for Art,* the exhibition held at New York's Jewish Museum in 1970, features an interesting photograph. A colony of gerbils lives a computer-controlled habitat filled with small cubes whose position would change in response to environmental stimuli. Towering over everything, a mechanical robotic arm programmed by the artists automatically moved the metallic blocks, responding to the modifications made by its inhabitants. Animals often

interfered with that system, introducing their own arrangements. The work of Nicholas Negroponte and The Architecture Machine Group that he headed at MIT explored the responsive capabilities of artificial intelligence by testing the effects of its implementation in an artificial environment managed by the rodents (Burnham, 1970). As intended by the authors, the experiment tested the dialogue between the two systems in a closed feedback loop of communication, focusing on the design of humanized technologies to stimulate the emergence of symbiotic living spaces understood as cohabitation of intelligent species (Negroponte). The works were displayed at the Jewish Museum exhibition following a meeting between Nicholas Negroponte and Jack Burnham, an influential artist and art theorist who was a fellow at the Center for Advanced Visual Studies at the Massachusetts Institute of Technology from 1968 to 1969. There, the future curator of *Software: Information Technology: Its New Meaning for Art* became interested in a new field, in which researchers studied the capabilities of information systems, computer networks, believing artificial intelligence to be a technology of the future. That remarkably important – especially in retrospect – exhibition showed works that relied on systems and processes and involved paradigms of communication and cybernetics by means of which individuals could interact with one another and their surroundings. They dovetailed with a new vision of art that developed since the 1960s, moving away from the finite material object towards dematerialized information. *Software: Information Technology: Its New Meaning for Art* not only aimed to showcase technological art but also highlight the rapidly expanding electronic environment whose impact on the creative process engendered the need to redefine previous aesthetic categories, as it challenged the idea of an artwork understood as a material object. Curator Jack Burnham asserted in the catalogue:

> (...) the goal of *Software* is to focus our sensibilities on the fastest growing area in this culture: information processing systems and their devices. (...) Thus it may not be, and probably is not, the province of computers and other telecommunication devices to produce art as we know it; but they will, in fact, be instrumental in redefining the entire area of aesthetic awareness (Burnham, 1970, pp. 10–11).

Taking up two floors of the Jewish Museum, the exhibition brought together pioneers of new media art, including Ted Nelson, Nicholas Negroponte, Roy Ascott, Les Levin or Nam June Paik, and prominent conceptualists, including John Baldessari, Vito Acconci, Hans Haacke or Joseph Kosuth. In effect, the conceptual and processual nature of the works came prominently to the fore in this unique, combined display of creations. *Software…* became a symbol of an encounter of two, seemingly disparate visions of thinking about and doing art which, as it turned out, came to share one idea (Shanken, 2001). In his

Aesthetics of Intelligent Systems, Burnham discussed the contiguity of computer programs and "dematerialized" conceptual art, underlining the communicative aspect of art (Burnham, 1970a). Unlike the numerous art and technology exhibitions that took place between 1966 and 1972, which explored aesthetic applications of the technological apparatus, *Software…* pursued the ideas of "software" and "information technology" as metaphors for dialogic art. For instance, *Cybernetic Serendipity* (Institute of Contemporary Arts, London 1968) or *The Machine at the End of the Mechanical Age* (Museum of Modern Art, New York 1968) prioritized showy machine-based experiments that demonstrated their capacity to mimic human creative skills. Meanwhile, Burnham's exhibition emphasized the processuality of art, and its entanglement with the complex systems of contemporary life, in which technology played an increasing role (See Walewska-Choptiany, 2021).

Although the exhibition itself drew critical reviews, mostly due to the unreliable equipment which generated additional costs for the organizers, it undeniably and incontrovertibly contributed to formulating new concepts of art. It would be legitimate to say that *Software…*, just as Jack Burnham's aesthetic texts – *The Systems Esthetics* (1968) and *Real-Time Technologies* (1969) – anticipated the systems- and information-reliant future of new interdisciplinary art forms that would function in environments governed by contemporary information-processing and communication frameworks (Burnham, 2015). The new understanding of art that Burnham propounded was directly linked to the scientific and technological evolution that fostered the transformation of the human sense of the aesthetic:

> Although the art of the future could take any one of a number of directions, it seems to me that, with the steady evolution of information processing techniques in our society, an increasing amount of thought will be given to the aesthetic relationship between ourselves and our computer environments – whether or not this relationship falls into the scope of the fine arts (Burnham, 1970a, p. 95).

At the time of the first mainframe computers, he predicted a far-reaching human interaction with technology, understood not so much as a tool but as an information system directly prompting the transformation of social and cultural structures. For Burnham, such technologies represented an entirely new form of aesthetics:

> The continued evolution of both communications and control technology bodes a new type of aesthetic relationship, very different from the one-way communication of traditional art appreciation as we know it. (...) the "aesthetics of intelligent systems" could be considered a dialogue where two systems gather and exchange information so as to change constantly the states of each other (Burnham, 1970a, p. 96).

The aesthetics of intelligent systems that Burnham advocated was yet another step in the long history of changes in art, initiated by Duchamp and his ready-mades, driven by conceptualism, minimal and cybernetic art, all of which sought to assail the tradition-hallowed work of art understood as a finite object of contemplation. Introduced into the domain of aesthetics, the notion of a "system" nurtured the relational dimension of the work of art, causing the latter to become dematerialized, to change into a process, communication, information, an element of discourse. In this new vision of art, the artist no longer produces a material object but creates complex, creative ecologies based on networks, interactions and exchanges. This opened the way to new forms of creative practice, while destabilizing our understanding of authorship in the age of artificial intelligence systems.

Contemporary culture is increasingly mediated by information, information systems, algorithms and artificial intelligence, fundamentally affecting the modalities of acting and being in the world. Burnham's texts show how past ideas laid the groundwork for how art is understood today. It has been more than 50 years since the *Software…* exhibition, during which time technology has been advancing continually to cross ever new boundaries. Information has become the primary medium of the 21st century, permeating every aspect of contemporary artistic practice, the works created and the supporting art systems (Goodfellow, 2024).

AI IS HUMAN AFTER ALL – TOWARDS AN ARTIFICIAL AESTHETIC

> *Our world is becoming entangled – so much of our consensus reality is being created by the software we hardly understand* (Ridler and Sinders, 2021).

AI is Human After All is an art project developed by Anna Ridler and Caroline Sinders in 2019–2021 as part of a residency at Ars Electronica, European ARTificial Intelligence Lab in Linz. Their main objective was to understand and explain the latent mechanisms of AI systems, as well as show the necessary human work involved in creating and implementing such systems. The artists' critical approach to technologies is also palpable in the present-day debate concerning the dynamic development of machine learning algorithms and the changes they induce in the art field. The new possibilities of generative AI give rise to numerous social, ethical or political challenges, calling their widespread implementation into some doubt.

In recent years, technologies have made a giant leap forward, pervading life without a trace yet so thoroughly that the fears surrounding their development are in no way unwarranted. Thus, Mark Weisers's 1991 prediction in the prophetic text *The Computer for the 21st Century* has come true:

> The most profound technologies are those that disappear. They weave themselves into the fabric of everyday life until they are indistinguishable from it (Weiser, 1991).

Many of the technologies available today used to be a pure speculation; now, they are becoming our daily experience. In the original vision of artificial intelligence from the 1950s and 1960s, reflected in the aforementioned aesthetic texts by Max Bense or Jack Burnham, the main challenge of the technology was to teach the computer to perform a range of cognitive tasks that only humans were capable of. Six decades later, AI systems are a key tool in modern economies, automating a range of activities, including the processes of creation and making (Manovich, 2019). While AI systems have been in development for decades, the increased computing power and data availability, along with the application of a new deep learning architecture, described most fully in the landmark paper *Attention is All You Need* (Vaswani et al., 2017), has exponentially increased their use, compounding our concerns about the place of humans in the new ecologies of modern life (Goodfellow, 2024). Today's creator is enmeshed in increasingly complex networks of production, which renders the essential questions of authorship in the age of AI more and more problematic (Goodfellow, 2024; Zeilinger, 2021). Such dispersed *modus operandi* encompasses both AI infrastructure, inclusive of the massive technological toolbox, hardware, software, the data that feeds it, as well as the unseen labour of those who label and catalogue the data used to train algorithms. In this context, Martin Zeilinger speaks of "posthumanist agential assemblages" that involve

> decentred, relational, and contingent subject positions, with the effect that questions of agency and cultural ownership are reconfigured beyond anthropocentric horizons (Zeilinger, 2021, p. 30).

The new logic of human-machine collaboration he proposes does not presuppose elimination of the human subject, but "recalibrates it in relation to the ecologies in which it shares" (Zeilinger, 2021). In this new arrangement, the artist no longer creates aesthetic and conceptual objects, but assumes the role of their interpreter and curator instead (Goodfellow, 2024). The changes taking place in the art domain had already been noted by Nicolas Bourriaud in the 2002 book *Postproduction. Culture As a Screenplay: How Art Reprograms The World*. According to the latter author, the practice of exploiting previous works by other authors or products of contemporary culture in the shape of digital data rather than any "raw material" to produce a work of art had been dynamically increasing since the early 1990s. In his opinion, the art of post-production seems to have been a response to the "the proliferating chaos of global culture in the

information age" that yielded a new order of space, in which a DJ and a programmer selects ready-made cultural objects and inserts them into new contexts:

> [...] how can we produce singularity and meaning from this chaotic mass of objects, names, and references that constitutes our daily life? Artists today program forms more than they compose them: rather than transfigure a raw element (blank canvas, clay, etc.), they remix available forms and make use of *data* (Bourriaud, 2002, p. 23).

The creative strategies described by Bourriaud followed the methodological tradition of Duchamp's "use of objects", later continued by Pop Art artists (Andy Warhol, Claes Oldenburg, James Rosenquist), New Realism (Martial Raysse, Raymond Hains, Jacques Villeglé) or appropriation artists (Sherrie Levine, Barbara Kruger, Jeff Koons). Their work, Bourriaud argues, represented the first stage in the evolution of the idea of post-production. This was followed by the remix-based art of the 1980s and 1990s which, taking advantage of the more widespread access to computers, promoted DJ culture and the related practice of "use of forms". Under such a typology, we are most likely witnessing the subsequent stage, in which those are the generative systems of artificial intelligence, fed either consciously (contracts, consents) or unknowingly (data scraping) by data from various sources, which drive present-day cultural production. Currently, artists operate in thoroughly different circumstances, determined epistemologically (non-human turn) and technologically (comercialization of AI systems), guiding us towards entirely new ways of seeing and creating. Nowadays, algorithmic and cybernetic systems shape almost every aspect of life, precipitating changes in the domain of art were non-human actors also make important contributions to the relational and multidimensional understanding of the human and the reality in which they operate. This complex dimension of cultural production is well reflected in Eduardo Navas's concept of metacreativity, construed as a

> cultural variable that emerges when the creative process moves beyond human production to include non-human systems (Navas, 2023, pp. 141–142).

This transformation proceeds gradually, allowing the entry into another meta-order, where

> the artist no longer produces the algorithm, itself, but rather writes a computer program that will take on a creative process according to parameters written by the artist (Navas, 2023, p. 142).

According to Navas, AI aesthetics consists in "the sense of perception that emerges in relation to the automation of cognition" (Navas, 2023, p. 245). This

definition by no means recognizes the machine as an autonomous and independent creator capable of any aesthetic reflection. It does not grant superior privilege to

> humans, or machines, but rather exposes what aesthetics has always been: a discourse of engagement with the world that the human subject projects onto nature as an 'other' to be territorialized (Navas, 2023, p. 245).

AI systems change the forms of this engagement diametrically, mediating them through analogue, digital as well as intelligent media that become an interface between us and the world, the others, our memory and imagination: a medium through which the world speaks using the engine it runs on. Due to AI expansion, the mechanisms of artificial intelligence remain hidden or covert, so that the extent of their entanglement in our lives is not realized. In this new environment, critical AI art (Anna Ridler, Caroline Sinders, Kate Crawford, Memo Akten, Mario Klingemann, Trevor Paglen, Nora Al-Badri, Przemysław Jasielski among others) and the aesthetic theory developing around it (Manovich and Arielli, 2021–2024; Żylińska, 2020; Navas, 2023; Zeilinger, 2021) may play a key role in raising awareness of the processes taking place out of sight, uncovering the workings of AI algorithms, which are often locked in black boxes while their operations and premises are beyond human grasp. The previously mentioned art project by Anna Ridler and Caroline Sinders represents the kind of inquiry undertaken in a new field of critical research on artificial intelligence, i.e. Human-Centred AI (HCAI) or eXplainable AI for the Arts (XAIXARTS), thanks to which technology may be made more transparent and comprehensible to humans (Bryan-Kinns, 2024).

CONCLUSIONS

In a *Letter to a Young Artist* included in the book *Artificial Aesthetics: Generative AI, Art and Visual Media*, Lev Manovich writes:

> The key difference between me, a human, and generative AI: I am limited, but AI is unlimited. (…). What makes art "human" is not our intentions, plans, ideas or meanings. (…) The only relevant thing is our limitations. Our inability to compete with the superhuman. With the web, with search engines, with recommendation engines, with huge databases, with machine learning algorithms, with Generative AI – and other super-human computer technologies to come (Manovich and Arielli, 2021–2024, pp. 140–141).

In his critique of artificial intelligence systems, he goes further, claiming that AI will in no way help develop human creativity. Thus, he recommends nurturing

our species limitations. In an era of dynamic development of artificial intelligence systems, the project of human alienation promoted by Manovich seems misguided. In addition, it seems to contradict the posthumanist perspective developed since the 1980s, which sees humans as part of a complex ecosystem. When we look at the history of art more broadly we will see that art has always been technological and emerged in what we can call "networks of human tools" (Żylinska, 2020, p. 55). The process of going beyond the humanistic horizon is well illustrated by the historical examples cited in this article of the aesthetic reflection developed over time accompanying art using the computer as a medium of artistic expression. The attempts made at the time were by no means about eliminating the human subject, but an attempt to define new conditions for its functioning.

The history of human-computer relations dates back to the 1950s, which saw the first visions of future artificial intelligence systems inspired by the enduring project of modernity. Computer art explored the potential of new technologies, seeing an opportunity to transcend the anthropocentric myth of creativity. The accompanying aesthetic reflection on the new artistic practices largely anticipated the changes that would take place in the field of art. In retrospect, it may be said to have played a very important metacritical role, facilitating adaptation to the circumstances in which technologies would become an integral part of everyday life. Today's artificial intelligence systems permeate every aspect of human life, transforming our experience of the world and our being in it. In this new arrangement, the human is at once a distinct and embodied subject as well as an element in complex ecological and technological systems, whose understanding helps one to function better.

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KIEDY SPOTYKAJĄ SIĘ MASZYNA I CZŁOWIEK. SZTUKA W DOBIE SZTUCZNEJ INTELIGENCJI

Streszczenie
Niniejszy artykuł porusza kwestię relacji człowiek-technologia w dobie sztucznej inteligencji. Stawia pytania o zmiany, jakie zaszły w polu sztuki pod wpływem zaawansowanych systemów uczenia maszynowego. Ostatnia dekada sukcesów AI wymusza konieczność przemyślenia kategorii estetycznych, w tym próbę redefinicji miejsca i roli artysty w zdeterminowanej technologicznie rzeczywistości. Przytoczone historyczne przykłady refleksji estetycznej towarzyszącej sztuce komputerowej lat 60. XX wieku w dużej mierze antycypowały zachodzące dziś zmiany, pełniąc jednocześnie ważną funkcję metakrytyczną. Dzisiejsza krytyczna sztuka AI może odegrać kluczową rolę w podnoszeniu świadomości na temat zachodzących procesów i odkrywaniu pracy algorytmów sztucznej inteligencji, które zamknięte w czarnych skrzynkach, są niedostępne ludzkiemu zrozumieniu.

Słowa kluczowe:
sztuczna inteligencja, estetyka, interakcja człowiek-komputer, sztuka komputerowa, postprodukcja, posthumanizm