doi: 10.25038/am.v0i29.533

Predrag Terzić
Faculty of Media and Communication, Singidunum University, Belgrade, Serbia

Processes of Our Mediated Spaces

> overloaded and brutalized [...] like when one looks at the sun for too long and one loses the ability to see after a while. It seems as if something like that has occurred. As a painter, one is particularly aware of that, in the midst of this jungle of imagery. It is clear to me that the naked eye has arrived at its end. It has become immune. It is no longer capable of insights.[1]
>
> Alfons Schilling

Abstract: Through art examples, I would like to show how real exhibiting space enters the dialogue with the visitor and his movement while using Virtual Reality and Artificial Intelligence. The analysis of the technological aspect is important, as well as the recognition of social and material conditions in the creation of new artistic practices, the production, and later recognition of what happens to art. I would move within the paradigm shift of image, photography, film, installation, and Internet use, as well as within the emergence of artificial intelligence.
The audience is seen as a participant in the creation and evaluation of artistic experience, they are invited to reveal their action views. Today, the exchange of experiences as well as the study of common experience in the context of artistic research is made easier through art systems. Artists incorporate evaluation into their practice, thus, establishing a new program of research in art and technology.
The interactive experience in the digital age explores different ways of creating and evaluating interactive art. While the visitor of contemporary art exhibitions explores and examines what is happening, how fast contemporary art is changing, (s)he still does not understand what is happening in front of her/him. Various art examples presented in this paper show a new phenomenon that places science, technology, and art on the same side. This opens a new chapter in artistic practice and makes the contemporary scene livelier and more diverse. At this point, we come to the possible sequence of events in art, which brings a new way of expression and provides an interesting space for further research.

Keywords: image; new media; VR; AI; art; space; perception; interactivity.

[1] Romana Karla Schuler, *Seeing Motion: A History of Visual Perception in Art and Science* (Berlin and Boston: Walter de Gruyter Gmbh, 2016), 218.

*Author contact information: predrag.m.terzic@gmail.com

In the digital age, the public has been drawn by the seductive power of computer technology and its omnipresence in our daily life. We might still have difficulties understanding new tendencies arising from generative art and emerging artificial intelligence. The events around us give us the opportunity to look at reality from another perspective. Works of art based on interactivity could be observed as a new approach to both space and postmodern historical position through media theory, which follows the dialogue between technological practice, social, and institutional criticism. The need to reveal the way in which the real space begins a dialogue with the visitor and his/her movement through the use of AR, VR, and AI is becoming significant for modern surroundings. The analysis of the technological aspect is of high importance, as well as the recognition of social and material conditions in the creation of new art practices, in the way they are produced and later recognized as art.

With the advent of digitization, new media, and media images, the former classification between high and low-value art proved to be unsustainable, so a new classification of art was required. Hans Belting detected a hint of the abolishment of the distinction between the aforementioned arts in the abolishment of the border that existed ever since the Modern era. "The artists are those who abolished the distinction between the painting/image, theory and theory of art."[2] Today's image endures various readings, like semiotic reading (which does not allow the image to be understood outside the framework of signs, signals, and communication), art theory (which, at all costs, wants to maintain a monopoly on the adequate perception of the image), and the scientific understanding of the image (examination of the brain's perceptual activity as a phenomenon of internal representation). In the newly created situation, one can see how art history shifts towards art theory, which brings us to the theory of the image; which, on the other hand, entails the necessity of finding a new way in which we will use and think about images. In other words, the theory of the image must change the cognition and research perspective of the image and the former fine arts. At this point, it is important to clarify the beginning of the change in the reading of not only the work of art and the media but also the space. The mere effect of placing the work of art in the space requires that the perception of the surroundings of such a work of art be reconsidered. Belting does not interpret the entire issue related to the media and the body as it was interpreted before, but he perceives it as a place of constant change, with his own position maintained only through the circulation of the image. On the one hand, it makes it possible to pose the question of perception, once valid in the traditional viewpoint, in a different manner. In this way, the possibility of establishing a new history, not that of perception, but of visual technology, emerges. As Belting says: "Images are neither on the wall (or on the screen) nor in the head alone. They do not exist by themselves, but they happen; they take place whether they are moving images."[3]

[2] Hans Belting, *The End of the History of Art* (Zagreb: Museum of Contemporary Art Zagreb, 2010), 36.

[3] See in: Belting Hans, "Image, Medium, Body: A New Approach to Iconology," *Critical Inquiry* 31, 2 (Winter 2005): 302.

Artists used perspective to be better understood and more precise in their intention. Technology was inclined to abolish that staticity and to add the movement, which happened later with the evolution of film. However, actual possibilities of movement blossomed with new media when technology itself progressed enough to show it. With such progress, the mimetic and representational concept of image transformed into a concept of image as a communication medium. In other words, with the emergence of new media, the modern world becomes a phenomenon of visible. The concept or area of the visible in our surroundings acquires different connotations and a completely different dimension. First of all, because of what surrounds us. Second, because of the continuous advancement of technologies and new media, which enables us to communicate in a different way – one that relies on the visual. Thus, many questions about the visual world are raised: How do we perceive things? What is the relationship between what we look at and the truth itself? "The 'methodic' character of theorizing both locates and places potential horizons on what *can* or, perhaps rather, what *will* be seen be it ancient, modern or post…"[4]

Since the issue of the relationship between reality and art is closely related to social, cultural, and historical factors, the contemporary discourse of visuality treats visual culture in a way that, somehow, examines the changes in the paradigms of the last century's art and reflects them on the contemporary paradigm and its contextualization. According to Merleau-Ponty, "reality is not a crucial appearance underlying the rest, it is the framework of relations with which all appearances tally."[5] In visual experience which, through VR, pushes objectification further than does tactile experience, we can, at least, at first sight, flatter ourselves that we constitute the world, because it presents us with a spectacle spread out before us at a distance, and gives us the illusion of being immediately present everywhere and being situated nowhere. "Tactile experience, on the other hand, adheres to the surface of our body; we cannot unfold it before us, and it never quite becomes an object."[6]

This led to a shift in art and a different perception of it, a perception that leads to an *opinion* within art itself. The persisting aspiration in sorting out empirical data and considering the structural background directs art to a new, wider space of ideas, to ideas that seek the expansion of the content and new possibilities of expression (expansion in terms of media). This leads to the establishment of a visual and linguistic aspect, to the establishment of the relationship between the *visible* object and the *illumination* of the inner mental/spiritual process. The spread of the philosophy of language influenced the change in not only the opinion about art but the art itself. Art was gradually becoming a language, and thus it was also becoming a kind of thinking. The expansion of its conceptual space is directly related to research aspirations and the emergence of interdisciplinary awareness. Such an interdisciplinary approach includes social, historical, metaphysical, and temporal dimensions, all for the purpose

[4] Chris Jenks, *Visual Culture* (London: Routledge, 1995), 11.

[5] Maurice Merleau-Ponty, *Phenomenology of Perception* (London: Routledge, 2002), 350.

[6] Ibid., 369.

of a comprehensive understanding of the concept of space. Moving away from the previous views of space and moving towards an epistemological view of space, we step into the sphere of the absolute and predominant world of sensuality and the body. Epistemology produced a logical and formally abstract space that includes the natural, mental, and social space. The question is how to explain and bridge the gap between theoretical and practical space, between mental and social space, and between philosophically designed space and material space belonging to people.

By all means, we should not forget the observer of these works since there is a need to mislead and weaken him while standing and observing the work of art. There is a similarity with forthcoming films where there is a black box instead of a painting, which is at the same time showing the image and paralyzing the observer. As Jay David Bolter explained: "Rather than striving for visual immersion, film addressed different aspects of our real-world experience: motion and time."[7] The motion appeared by relocating/emerging the image from the black box and its entering into museums and galleries. A kind of duality appears, which leaves the possibility for the observer to look at the entire work or to move freely through space, which becomes a novelty. We continue to be absorbed by his movement during the further development of new media. The image which now appears is not and does not have to represent anything, as has been the case so far. Such an example does not have to be related to perception, i.e., intersubjectivity referencing to something real in relation to the image, the observer, and the excess of imaginary.

If the image exists in a world dominated by visual media, then the image is shaped by such media, because it survives in them. The deconstruction of body and image that comes with Belting explains the loss of reference in a media-saturated world. The general view is that images are reduced to information in the information age. Any new knowledge is explained with the help of visual information, which means that every new event that takes place in the real world is explained visually, as new information. What used to apply to language and text today refers to the image as the main carrier of communication. Belting himself does not perceive the image as information because of the ideological reductionism of the contemporary image; in other words, the image is the result of modern technology of information transmission and rests on the scientific arrangement of reality.

Here the problem arises and it remains unclear in what way the artificial presence of the image makes the observer put himself in a situation of understanding the difference that arises before him/her. On the one hand, there is the image that comes from art history, and on the other hand, there is another one coming from a different discursive field, and examining the possibility of artificial spaciousness, i.e., VR or AI, where there is no possibility of a prior perception of the image since it has no foothold in the real world. The best way to understand it is on the example coming from ING Group, J. Walter Thompson Amsterdam, and Microsoft, who made a new Rembrandt

[7] Jay David Bolter, Maria Engberg, and Blair MacIntyre, *Reality Media* (Cambridge, Massachusetts London: The MIT Press, 2021), 31.

painting using artificial intelligence. The painting titled *The Next Rembrandt*[8] was designed as a database of all Rembrandt's paintings. Owing to such an effort and production, a painting was created with the technical support of artificial intelligence. It gave us an insight into the level of technology used for the current production of something *real* by artificial intelligence. At this point, we can see how art is understood when using AI. "There is the need to remediate what we know about the nature of art," as Bolter and Grusin say.[9] There is no place for a critical understanding of art where a new form is sought. Instead, there is the beauty of repetition. Art is reduced to the mere memory while the participant is in the state of repetition of the once seen. In other words, culture is placed in an entertaining framework, which should delight and surprise us, and thus become acceptable through familiar structures and patterns.

The following work can help us understand the way art is perceived today. It is an algorithm-generated (GAN) work created by the group *Obvious*[10] titled *Edmond de Belamy*. It was created by means of AI and sold by Christie's. The auction house declared it the first AI portrait to appear at auction,[11] thus creating a media spectacle that raised the question of authorship and AI. One thing should be mentioned, and it speaks much more about the work itself. The algorithm was created by Robbie Barrat,[12] and later it was taken over by *Obvious*.[13] Barrat had designed the algorithm in GAN, where it was used to create landscapes.[14] It is interesting that *Obvious* received the most attention in the media space. What was important from a media and visual point of view is the overall process of creation of the work, as well as how it was presented in the auction sale. The final balance measurable through the media spectacle is best described in the words of Klingemann, who told *The Verge* magazine: "I wonder why they missed the opportunity to declare their work as an AI-readymade and bring us the first digital Duchamp."[15] Or perhaps it was also best described in the empirical extract dealing with the whole case in the research named *Who Gets Credit for AI-Generated Art?*[16] by Ziv Epstein, Sydney Levine, David G. Rand, and Iyad Rahwan, which points out that the artist Barrat was neglected. Finally, this opens a new debate regarding AI and our accepted parameter of authorship – what is original or who is

[8] https://www.nextrembrandt.com/, acc. on April 28, 2022.

[9] Jay David Bolter and Richard Grusin, *Remediation* (Cambridge, Massachusetts: The MIT Press, 2003), 73.

[10] https://obvious-art.com/portfolio/edmond-de-belamy/, acc. on April 20, 2022.

[11] https://www.christies.com/features/A-collaboration-between-two-artists-one-human-one-a-machine-9332-1.aspx, acc. on April 27, 2022.

[12] https://github.com/robbiebarrat/art-DCGAN, acc. on May 20, 2022.

[13] https://github.com/robbiebarrat/art-DCGAN/issues/3, acc. on May 20, 2022.

[14] https://twitter.com/i/status/975833726834769920, acc. on May 20, 2022.

[15] Vincent Vincent, "How three French students used borrowed code to put the first AI portrait in Christie's," *The Verge*, October 23, 2018, https://www.theverge.com/2018/10/23/18013190/ai-art-portrait-auction-christies-belamy-obvious-robbie-barrat-gans, acc. on May 20, 2022.

[16] Ziv Epstein, Ziv, Sydney Levine, David G. Rand, and Iyad Rahwan, "Who Gets Credit for AI-Generated Art?," *iScience* 23, 9, 25 (2020): 101515. acc. on May 20, 2022. Ian Goodfellow invented the original GAN architecture and Alec Radford, Luke Metz, and Soumith Chintala innovated the DCGAN that actually generated the artwork.

competent to determine it? In both abovementioned cases, it can be seen that today's technology breaks the painting styles or canons of the old masters coming from the history of art. Flusser said that we understand creativity and work within the given framework of the software offered to us in the apparatus. We are framed in a given model and try to get the most out of it with our knowledge. At one point he says: "This is a new kind of function in which human beings are neither the constant nor the variable but in which human beings and apparatus merge into a unity."[17] Therefore, there is a need to change our perception and reasoning through art.

Another problem that arises with space called inanimate, "where the image is immersed in VR", according to Grau,[18] whereas the observer is placed in the position of duality. On the one hand, he/she is liberated from any previous knowledge about the image, while on the other hand, his perception is influenced by the awareness of a different reality where he can notice what is present. Thus, the image is shown in the material aspect as an intentional object. What draws attention to such images is the thing they specifically refer to. The images that exist inside a VR environment can only relate to what is realistic about their environment. Here we can mention the appearance of rapper Travis Scott in the video game Fortnite.[19] There is the same enchantment as if we were in a generated space. It gives us the scenes which are actually possible only inside the image, and are not directly connected with what we, as observers, see as reality in our consciousness. Furthermore, it takes us to a different perspective and a new approach to the generated image being also artificial reality. The observed object changes at the same time since the generated images from virtual space are observing the observer, which Paul Klee already announced in the first decades of the last century. He said that the objects would appear in an extended and more diverse sense, seemingly often contradicting the rational experience of yesterday.[20] We could later notice that Marcel Duchamp continued by questioning the subject of artistic production, where *the object deconstructed the subject*. In this case, *the observed* is changing the observer. We can mention another case that Bolter uses; "when the video game Minecraft Earth displays building platforms in a yard or a park, no player really confuses the Minecraft objects with their real-world settings. Part of the charm of the game is that these stylized objects appear to occupy space in the world in a way that even the youngest players know is impossible."[21]

Already in 1997, two researchers, Lombard and Ditton,[22] offered a classification of different ways in which VR can condition how we perceive and experience the world. They grouped definitions in two broad categories:

[17] Vilém Flusser, *Towards a Philosophy of Photography* (London: Reaktion Books, 2000), 27.

[18] Oliver Grau, *Virtual Art: From Illusion to Immersion* (Cambridge, Massachusetts: The MIT Press, 2003), 233.

[19] https://www.youtube.com/watch?v=U-gpVqMd7wE, acc. on April 30, 2022.

[20] Hans Belting, *The End of the History of Art*, trans.by Christopher S. Wood (Chicago: University of Chicago Press, 1987), 24. Originally Klee was cited by Warner Hofman, Zeitschrift fur Kunstgeschichte 18, 1955, 136. (Studien zur Kunsttheorie des 20. Jahrhunderts, Deutscher Kunstverlag GmbH Munchen Berlin).

[21] Bolter, Engberg, and MacIntyre, *Reality Media*, 85.

[22] Ibid., 103.

- individual perception of the world
- social interaction and engagement with others.

The first category includes presence, transportation, in the form of immersion and realism. A similar situation was in the beginning with television and the way waves create the image which transports us into another space. However, in VR you are completely disconnected from the surroundings, similar to the film, but with the tendency that present realism is not as close as with VR. What is important is that you feel that your body has left its digital capsule and that you are now passing through the pathless space that surrounds you. Bolter explains it in the following way: "From a historical perspective, the most salient measure of presence is the degree to which a medium can produce realistic representations of objects and events. To say that a reality medium achieves presence by being realistic seems like a hopelessly circular definition."[23]

When we speak about the second category, the feeling of presence could be reached also while being in contact with other people, not necessarily having the high resolution we are used to seeing in a VR environment. Social engagement does not have to be closely connected with presence, as we could notice during the pandemic period. It was not necessary to have a high resolution to have a sense of connection, especially, when we remember all the media images used during two years of isolation. If we can imagine that in one moment VR is offering us a new experience never felt before through conferences, Zoom, or Google Meet connection, then we have a new space for action. The appearance of avatars at the conference gives a new sensation that has not been seen or experienced in the past; a new presence that introduces us to new feelings.

The audience is seen here as a participant in the creation and evaluation of artistic experience, being invited to reveal its actions and to express its viewpoints. Nowadays, the exchange of experiences is easier through art systems, as well as the study of common experience in the context of research that artists conduct. Artists include evaluation in their practice and thus, establish a new program for the study of art and technology. The interactive experience in the digital age explores various types of creating and evaluating interactive art by artists, while the visitor is still in the dark space since he does not understand what is happening in front of him. The topic unfolding through different scenarios refers to interactive art, participation and engagement of the audience, and experiences on the public stage. Interactive artistic development is also of interest to the public, and the methodologies used can be well applied in the research of the interaction between people, computers, art, and new reflection on how to continue further.

The matter of proceeding in the interaction between humans, computers, and arts is the biggest challenge facing us. For several reasons, the entire further work is exciting and challenging due to possible new solutions. These new solutions are more related to database testing, not in the way we could see in the past to be used

[23] Ibid., 104.

for the Turing test, as in the example of chess. It does not imply only the world of the chessboard, but the question of the world and the environment of that board, with all possible combinations created in the last decades. There is a need for a new way that will enable further technical, scientific, and artistic advancement.

To reach new emotions and understand the goal, we should mention something about the digital world that is changing before our eyes. We no longer have rule-based algorithms, but seemingly organic algorithms connected to humanity in a comprehensive process of control and optimization. It is no longer the question of producing geographical maps as it was the case until now, but it is the question of a cognitive space that functions on similarities, affinities, and perception of designing creativity maps. We can see it in the example of Matthew Tancik and his NERF,[24] a fully connected network directly mapping a spatial location without rendering in 5D mode so that a new view can be displayed. In order to see progress, I will mention that Ars Electronica also included AI as one of the artistic categories (Artificial Intelligence & Life Art).[25]

Despite progress, artificial intelligence, machine learning, and deep learning are confused one with another by being equalized. However, Sofian Audry explains such confusion in the following manner: machine learning is mostly focused on designing computer algorithms that only learn, while deep learning implies a specific approach within machine learning that uses a particular type of learning system known as artificial neural networks. In our day and age, only deep learning and other advanced forms of machine learning should be called artificial intelligence.[26] Audrey further explains the division of machine learning into supervised, unsupervised, and reinforcement learning. The first type of learning is focused on understanding the differences between the two offered forms and their further recognition. In the second type, conclusions are drawn that do not have such meanings, and the algorithm itself is asked to recognize and classify the given data. The third type is more about recognizing the environment and reacting at a given moment and at the same time behaving optimally.[27]

Nowadays, it is interesting to observe how artificial intelligence functions, and not to observe the creative process itself. Through the process, we can see what is happening and how everything is perceived and set in certain directions. All of this places artificial intelligence in a different position. The example of Justine Emard and

[24] https://www.matthewtancik.com/nerf, acc. on May 2, 2022.

[25] Sofian Audry provides a list of exhibitions that follow the above-mentioned progress, and these are: Ti con Zero, the Palazzo delle Esposizioni in Rome 2022, Uncanny Valley: Being Human in the Age of AI (Young Museum, San Francisco, 2020–2021), AI-TNB (Curatorial Sketch for Liverpool Biennial 2021), Art & Science (Museum of Science and Technology, Belgrade 2021), AI: More Than Human (Barbican Centre, London, 2019), Deep Feeling: AI and Emotions (Petach Tikva Museum, Tel Aviv, 2019), D3US EX M4CH1NA (LABoral, Gijón, Spain, 2019), Entangled Realities: Living with Artificial Intelligence (House of Electronic Arts, Basel, 2019) I Am Here To Learn: On Machinic Interpretations of the World (Frankfurter Kunstverein, 2018), and Machines Are Not Alone: A Machinic Trilogy (Chronus Art Center, Shanghai, 2018).

[26] Sofian Audry, *Art in the Age of Machine Learning* (Cambridge and London: The MIT Press 2021), 27.

[27] Ibid., 33.

her work Co(AI)xistence, 2017,[28] shows us the course of learning and making a new relationship between the man and the robot with artificial intelligence. The entire relationship takes place before our eyes and we see how reinforcement learning progresses, while we follow the current changes that can seem amazing to us. Emard's work is based on a new type of communication between visitors and the robot, where the robot animates the movements, it has just seen and begins to learn with repetition and from its own experience. Her work focused mostly on unstructured communication between the two entities. They communicate through signal, body, and spoken language. The visitor is surprised by this act and the newly created communication that takes place in an instant and makes the overall relationship between the man and the robot different.

On the other hand, inspired by a conversation with artist Carsten Höller, Jens Hoffmann came up with an idea for the project titled *The Next Documenta Should Be Curated by An Artist*.[29] After such a conversation and perception of art, two projects that used artificial intelligence appeared in Liverpool during the 2021 Biennale. The first project was B³(NSCAM) by Christiane Paul, in collaboration with artist Ubermorgen.[30] The second project was AI-TNB, which was commissioned as part of UKRI/AHRC Strategic Fund: *Towards a National Collection*, curated by Manuela Moscoso. Both projects offered interesting observations about artificial intelligence and how it interacts with humans. Furthermore, they offered observations on how a process, selection of an artist, or text comprehension can be viewed through dialogue with a machine and gave a new insight into the curator's or artist's creative view of the exhibition process or selection of the desired artist for individual or group display of his/her works at future exhibitions.

This year's Venice Biennale hosted a work *Untitled* by the Croatian artist Tomo Savić Gecan[31] who links his work with artificial intelligence and holds performances at various locations in Venice. The entire work includes a selected text, as a collection of data from various daily newspapers and their news. One piece of news is processed as the most important one and then artificial intelligence continues processing the data and provides performance instructions for the given day. The artist's act has made the work visible at different locations, as prescribed by artificial intelligence, with the possibility of repetition if a piece of news that remains relevant over a longer period of time reappears during the selection process. By this act, Gecan not only cancels the need for a permanent exhibition venue, but he makes it mobile in terms of any further form of perception and understanding of the current situation which is fluid.

Today's new generation of artists no longer distinguishes between science, technology, and art, as all these fields/categories shape our environment. Different

[28] https://justineemard.com/coaixistence-2/, acc. on May 4, 2022.

[29] https://www.e-flux.com/announcements/42825/the-next-documenta-should-be-curated-by-an-artist/, acc. on May 4, 2022.

[30] https://www.liverpoolbiennial2021.com/programme/ubermorgen-leonardo-impett-and-joasia-krysa-the-next-biennial-should-be-curated-by-a-machine/, acc. on May 4, 2022.

[31] https://croatianpavilion2022.com/, acc. on May 2, 2022.

perceptions of the future of art has existed ever since 9 Evenings: Theatre and Engineering in New York (Experiments in Art and Technology (E.A.T): Nine Evenings) in 1966. We must stress that the history of art still has trouble acknowledging the peculiarities associated with interactive media arts as a completely valid form of artistic expression. In other words, it could be said that this form of art aided by computers and algorithms gains an air of a new avant-garde. No work bears the aesthetic of the times past. On the contrary, they all give us something new and different from anything we have seen so far. New spaces are created owing to algorithm and computer, which merely transform the current situation. This kind of space overlapping inspired Christian Loclair to create a work called *Narciss*.[32] The work is based on Ovid's *Metamorphoses*, with a robot placed in the foreground, observing its hardware in a mirror and, by zooming in with its camera, trying to perceive itself without any influence by the audience who is a mere silent observer of what unravels before their eyes. The work involves nothing of the visual, but a screen displaying the performance of the algorithm that tries to comprehend itself and do something for itself. Here we can observe how information becomes working material. What becomes interesting is turned towards us, the theatricality we love to use when speaking about ourselves. By using different social networks, we are likely to fall into the trap of opinions which could be nothing but pieces of received information, and then the dramatics become perceivable in all their beauty. In Loclair's words: "I do believe that humans become increasingly mechanic and continuously reduce the complexity of their behavior for the sake of speed and self-optimisation."[33]

We see that artists, through various approaches, make use of computer systems, algorithms, learning systems, AR, VR. New practices in the art are being derived, not only permeated with science and technology but very hard to comprehend in their entirety and at the same time difficult to trace in terms of all the possible changes rapidly taking place. The artist uses technology and science in his or her own way while the explanations coming from the artist considerably differ from the corresponding definitions from the fields of science and technology. The reason for this comes from the fact that artists approach the problem sideways and thus offer not only a varied approach, but also new solutions that a scientist or an engineer experience as something foreign and different. In other words, artists, unlike scientists, are focused on the process and not on the goal. Therefore, it is not uncommon to turn to AI for artistic creativity based on computer creativity, and such a basis often stands in contradiction to understanding the principles and values of contemporary art. Therefore, we should also mention Lauren, one of the works of the artist Lauren Lee McCarthy, who offered an interesting perception of the use of technology and AI. Her work is designed to show how AI can be absurd in an art project. The work implied Loren taking on the role of Amazon Alexa and being in people's homes non-stop. As the artist, herself says: "I aim to be better than an AI because I can understand them as a

[32] https://christianmioloclair.com/narciss, acc. on May 5, 2022.

[33] https://www.goethe.de/prj/k40/en/kun/loc.html, acc. on May 5, 2022.

person and anticipate their needs."[34] Here we can see the influence of media structure and social networks that regulate new feelings. And when all this is mixed with Alexa's algorithm, we no longer get the Blade Runner feeling, but the sense of futility. In other words, we can see how humanity and technicity are understood, as Bernard Stiegler explains: "Interior and the exterior are consequently constituted in a movement that invents both one and the other: a moment in which they invent each other respectively as if there were a technological maieutic of what is called humanity. The interior and the exterior are the same thing; the inside is the outside since man (the interior) is essentially defined by the tool (the exterior)."[35]

Although we are surrounded by algorithms on a daily basis, AR, VR, and AI have still not reached the level of omnipresence. We cannot be sure that it will happen soon. Above all, AR can be said to have a current presence that does not need to separate us immediately from the reality in which we live, but it needs to be the one that will slowly replace the screen and become more visible than others. Not because it is not as developed and expensive as VR, or AI in another field of activity, but because of the possibility to be implemented in modern screens and thus become more and more present. Sean White, chief research and development officer at Mozilla, "is more than sure that he will change the screen culture we live in and that AR is inevitable in the near future."[36] Surely, it will affect the social networks we use and not just the art and technology we use. With such a development, we can only assume that a third culture will emerge, as Arthur Miller suggests: "That implies individuals whose understanding of the world includes a merging of art, science, and technology, a blurring of boundaries on the largest of scales, in which these three disciplines no longer function separately."[37] Miller explained the concept of the third culture on the basis of C. P. Snow's division into two cultures which he defined in his lectures in 1959.[38] One that saw itself as an intellectual elite, did not understand what *mass* and *acceleration* are, and did not know the second law of thermodynamics. These were the foundations on which Miller based his view of the third culture, which is reflected in the total fusion of science, technology, and art. It could be said that we have not seen such cohesion since the Renaissance and the Enlightenment, and it affects our lives with so much attention and changes everything we have known so far. Indeed, we cannot say that science and art, and their cohesion, will be the mainstream, but we can see through the media that this has already happened and that it is omnipresent. An example of this is Ars Electronica – one of the main places for media art. And when it comes to the distant future, it cannot be said that such art will master and be present at art fairs

[34] https://lauren-mccarthy.com/LAUREN, acc. on May 2, 2022.

[35] Bernard Stiegler, *Technics and Time,1: The Fault of Epimetheus*, trans. by Richard Beardsworth & George Collins (Stanford: Stanford University Press, 1998), 142.

[36] Bolter, Engberg, and MacIntyre, *Reality Media*, 209.

[37] Arthur I. Miller, *Colliding Worlds: How Cutting-edge Science is Redefining Contemporary Art*, (New York: W. W. Norton & Company 2014), 328.

[38] C. P. Snow, "The Rede Lecture" (Cambridge University Press, 1959), https://apps.weber.edu/wsuimages/michaelwutz/6510.Trio/Rede-lecture-2-cultures.pdf, acc. on May 5, 2022.

where it will have the main say. There will be more talk about new tendencies that will be the bearers of changes until something else and more dynamic appears. Until then, the third culture should first deal with the artist-scientist relationship, although both prefer to call themselves researchers, as well as with disagreements that are normal in such a relationship. We can expect that neither will institutions bring about unification, in the true sense of the word, nor will critics, who are educated according to the model of art history, easily accept the newly formed situation, and fully understand it. This way of acting is still out of the mainstream. It is more based on experiment, laboratory research, conferences, and unique exhibitions that are not clear enough to the general public. It will take time for this connection to be understood and set up in an adequate manner.

Patrick McCray also mentions this outcome, saying that we are at the beginning of everything and that we need more possible perspectives to understand where we are heading. In his book, he says "that we have moved from one model to another, from STEM education (short for Science, Technology, Engineering, and Mathematics) to STEAM education (Science, Technology, Engineering, Art end Mathematics)."[39] This concept was first introduced by John Maeda back in 2011. He realized that art is an integral part of everything that the future brings us, and in correlation with the economy, we get a new field that seeks its own space for action. In other words, the overall aesthetics of everything we have so far understood and seen as the art will change. In situations where the image is constantly changing, you are no longer sure if you can use familiar devices to study the upcoming generated art. At the same time, every further human movement becomes invisible behind the screen, and if such art becomes acceptable, then the entire modern artistic movement will be just one of the possible views and thus open space for something new and promising that our senses have not yet felt or experienced.

Translated by Dragana Rašić Vuković

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Article received: May 20, 2022
Article accepted: July 15, 2022
Original scholarly paper