

Małgorzata Dancewicz-Pawlik

University of Wrocław (PL)

ORCID: 0000-0003-4753-3464

“I Do Not See the [Technology] Hidden in the Forest”

In the Loop of Performance Documentation, Reenactment, and Digital Reality

Abstract

This article analyses aspects of performance art such as documenting, reenactments, blockchain-minted performance, and bio performativity. It is argued that while technology has always been implicitly inscribed in performance art, recent developments in large-language-model algorithms and virtual reality have brought these issues back into focus, enabling their effective application. In a time of deepened mediatization of everyday life, the question of documentations and reenactments refers us to the significance of corporeality in performance. In her analysis of the examples presented, the author returns to the assumptions of unmarked bodily presence in the context of digital performance ontology and points out new

technologies as an interface between the presence and absence of the body in digital performances. She argues that in today's world, the foundation of performance is the digitally conditioned dynamic tension between the body's presence and absence.

Keywords

performance documentation, reenactment, liveness, bioart, VR, MR, blockchain art

Abstrakt

"I Do Not See the [Technology] Hidden in the Forest": W pętli dokumentacji, reperformowania i cyfrowej rzeczywistości performansu

W artykule przeanalizowano takie zagadnienia związane ze sztuką performansu jak procesy dokumentacji, reperformowania, zapisywania performansu w technologii blockchain oraz bio-performowania. Technologia zawsze była nieodłącznie wpisana w sztukę performans. Jednocześnie, najnowsze osiągnięcia w dziedzinie dużych modeli językowych oraz wirtualnej rzeczywistości ponownie zwróciły uwagę na te kwestie, umożliwiając ich praktyczne wykorzystanie. W czasach coraz głębszej mediatyzacji życia codziennego kwestia dokumentacji i reperformowania odsyła nas na powrót do znaczenia korporealności w performansie. Analizy przedstawionych w artykule przykładów wychodzą od założeń dotyczących niejawnej obecności ciała w kontekście ontologii performansu cyfrowego i wskazują na nowe technologie jako interfejs między obecnością a nieobecnością ciała w performansach cyfrowych, dowodząc, że podstawą performansu w dzisiejszym świecie jest uwarunkowane cyfrowo dynamiczne napięcie między materialną obecnością a nieobecnością.

Słowa kluczowe

dokumentacja performansu, reperformowanie, liveness, bioart, VR, MR, sztuka oparta na technologii blockchain

Most artworks are the result of a body action (energy, motion, pleasure, anguish...) that stays as a fossil in the painting, the picture, the sculpture, the photo, the video...¹

Orlan

Where does the transformative power of performance art lie within the digital world? If we assume, as Erika Fischer-Lichte proposed,² that one of the basic principles of the aesthetics of performativity is considered to be a feedback loop between the performer and the recipient, where can the transformative stratum of the digital be located?

This significant issue regarding performance art, triggered by the radical Peggy Phelan's statement in *Unmarked: The Politics of Performance* that "performance's only life is in the present; performance cannot be saved, recorded, documented, or otherwise participate in the circulation of representations of representations: once it does so, it becomes something other than performance,"³ seems to be consistently valid in the reality of mixed reality, social media, ICT, blockchain art, biotechnology, and ubicomp. While, evaluated and in an altered form, it still persists as one of the most significant issues in the ontology of performance art, it had been initially brought to light in the early 1980s and 1990s. To say that performance happens in the "here and now" is a valorization of the authenticity of direct experience. But when this authenticity is recorded, transmitted, and disseminated by technology, the boundary between live experience and the mediatized expands. We can understand performance as an event that requires the simultaneous presence of the performer and the audience in the same place and time. But at the same time, acts of mediatization whose ontology are shaped at the level of the phenomenology of their reception exist as well. In the 1990s, many studies of live performance emphasized the ephemeral state of performative achievements and the need for a direct, common experience of time and space in performance-art experience. Such a perspective was strongly expressed for the first time in Phelan's *Unmarked*. According to Phelan, performance is only possible through life in the present, and it becomes a performance through its disappearance. When the debate started, the

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¹ Orlan, "We Are Formatted Memories," in *Perform, Repeat, Record: Live Art in History*, ed. Amelia Jones and Adrian Heathfield (Bristol: Intellect, 2012), 269.

² Erika Fischer-Lichte, *The Transformative Power of Performance: A New Aesthetics*, trans. Saskya Iris Jain (New York: Routledge, 2008).

³ Peggy Phelan, *Unmarked: The Politics of Performance* (London: Routledge, 1993), 146.

adverse viewpoint was represented by Philip Auslander. In *Liveness: Performance in a Mediatized Culture*,⁴ he discussed his thesis that because of the digital culture in which we are living, every performance is mediatized. This viewpoint was acknowledged. One of the first exhibitions concerning the documentation of live work, called *Out of Actions: Between Performance and the Object, 1949–1979*, was held in 1998 at the Museum of Contemporary Art in Los Angeles. Curated by Paul Schimmel, it introduced a question about the character of the qualification of live and documented performances.⁵ In *The Archive and the Repertoire: Performing Cultural Memory in the Americas*,⁶ Diana Taylor describes performance as a strategy for the shared inheritance of memory, as repertoire, a transnational mode of transmitting knowledge in a process whose central signifier is its repetition. The process of disappearance and preservation of performance as documentation is also central to Schneider Rebecca's research in *Performing Remains: Art and War in Times of Theatrical Reenactment*,⁷ where she analyzes the processes of recovering the past and reproducing the original. In the strategies of reproducing, the fact of being faithful or not to the original is important, while for her the meaning of performance is generated by difference and repetition. The question, dating from the 1990s, of how to change the ontology of the authenticity of experience from direct to indirect is still valid—because evaluating digital performance requires an understanding of how performance is perceived, whether through direct or indirect engagement. Schneider suggests, following Claire Bishop,⁸ that in live art practice since the 1990s there has been a rise in “outsourced authenticity,” which is related to outsourcing as a mode of economic globalization in post-industrial capitalism. She writes:

reenactment artwork may be an art precisely suited to a service economy. And we should not shy away from critique of such art, the economy it suits, and the accompanying neoliberal politics of privatization in which it thrives. If this is artwork well-suited to a service economy, we can then ask: In what ways might we use reperformance and the issues it raises about the labor of

⁴ Philip Auslander, *Liveness: Performance in a Mediatized Culture* (London: Routledge, 1999).

⁵ See <https://www.moca.org/exhibition/out-of-actions-between-performance-and-the-object-1949-1979> April, 13, 2025.

⁶ Diana Taylor, *The Archive and the Repertoire: Performing Cultural Memory in the Americas* (Durham: Duke University Press, 2003).

⁷ Rebecca Schneider, *Performing Remains: Art and War in Times of Theatrical Reenactment* (New York: Routledge, 2011).

⁸ Claire Bishop, “Outsourcing Authenticity? Delegated Performance in Contemporary Art,” in *Double Agent*, ed. Claire Bishop and Sylvia Tramontana (London: Institute of Contemporary Arts, 2008).

affect to help us think critically about our broader participation in neoliberal society, much as we have used object art and its discontents to help think through commodity capitalism.⁹

The issue of technology in performance art is closely related to the issue of performance documentation, which represents the very first combination of live performance and technology, as every technology is the result of economics, politics, industry, and knowledge production.

The exploration of accomplishments through documentation, in which performances are drawn from a range of photos, movies, streaming media, and critical writings, ought to be approached with the same degree of predictability as the projects themselves. Performance documentation has an ontological, technological, and distributional purpose. It is vital to look to the beginnings of the relationship between performance and technology and to concentrate on its recording to follow how performance moves beyond the bounds of instant authenticity and mediatization. A very specific way of documenting live art is to reconstruct it. Reperformances are a useful tool for illustrating connections between technology and performance art—while also showing that the issue of documentation in performance art is not primarily about preserving the work of art but concerns the strategy of its mediatization.

If we look at the concerns of documentation and remediation from the perspective of media studies, mediatization would not be an entirely new process. Understanding of the importance of the issue accelerated precisely in the 1990s, when performance studies was lighting up topics concerning the disappearance and preservation of performances: mediatization and remediation, as processes of mediation (mass and digital) in learning about the world, consisting in shaping social reality with the help of and through the media by influencing the perception of the entire social reality, shaping the performance of both individuals and communities. Globalization and commercialization, related to the processes of mediatization and remediation, are natural meta-processes of these changes. This was written about in 1997 by Roger Fidler in *Mediamorphosis: Understanding New Media*,¹⁰ and a continued a few years later by Nick Couldry and Andreas Hepp in *Mediated Construction of Reality*,¹¹ just to identify the works that have had the most impact. So discussion about remediation, including from the point

⁹ Schneider, *Performing Remains*, 137.

¹⁰ Roger Fidler, *Mediamorphosis: Understanding New Media* (Thousand Oaks, CA: SAGE, 1997).

¹¹ Nick Couldry and Andreas Hepp, *Mediated Construction of Reality* (Cambridge: Polity Press, 2017).

of view of media studies, began in the 1990s, but the hybrid nature of today's communication reality necessitates its revalorization.

Live Art as Monumental Documentation Strategy

This shall be analyzed through consideration of Marina Abramović's extensive documentary and reinterpretation project, which includes body art and endurance art examples. Abramović recreated the most well-known live art performances in art history for her *Seven Easy Pieces*, which were shown at the Guggenheim Museum in New York from November 9 to November 15, 2005. Her work consisted of Bruce Nauman's *Body Pressure* (1974), Vito Acconci's *Seedbed* (1972), Valie Export's *Action Pants: Genital Panic* (1969), Gina Pane's *The Conditioning* (1973), Joseph Beuys's *How to Explain Pictures to a Dead Hare* (1965), and two earlier actions by Abramović herself: *Lips of Thomas* (1975) and *Entering the Other Side* (2005). With *Seven Easy Pieces*, Abramović thus recreated five important live performances from art history—without having been present at any of them.¹² Thus, using their documentation, her strategy was to reclaim new meaning for them. In the context of live-art preservation, it is important that all *Seven Easy Pieces* were shot as a documentary film directed by Babette Mangolte.¹³ She is well known for her work with artists such as Lucinda Childs, Trisha Brown, Robert Rauschenberg, Yvonne Rainer, Pina Bausch, and many other performance artists. In the Bruce Nauman reconstruction in Abramović's *Body Pressure*, the artist pressed her body against a very large-sized pane of glass at the site of Nauman's work—in the same place where, following Nauman's instructions, participants in the 1974 action were to press their bodies against the gallery wall, creating a momentary living image of themselves within the exhibition space. Another piece, a *tableau vivant* of the photo documentation of Valie Export's *Action Pants: Genital Panic*, is a documentation of a documentation. The initial Export action was carried out in a cinema during the projection of a film. The artist walked in front of the audience with genitalia exposed, wearing crotchless trousers, distracting them from the images on the screen. The issue required to be highlighted is that the action was not recorded live. Abramović reconstructed this performance based on a portrait of Valie Export from the *Action Pants* commercial poster, which was made

¹² Nancy Spector, "Seven Easy Pieces," in *Marina Abramović: The Artist Is Present*, ed. Klaus Biesenbach (New York: Museum of Modern Art, 2010), 36–39.

¹³ See Babette Mangolte's website, <http://babettemangolte.org/films.html>, accessed June 1, 2023.

some time after Export's live act. The reconstruction of Joseph Beuys's *How to Explain Pictures to a Dead Hare* was based on its documentation as well. We can see that she repeats the same gestures that Beuys made in 1965. The series of reperformances was a work of documentation itself, filmed and turned into the next level of recording. In such a specific palimpsest, the next level of the initial performative content is always mediated and overwritten. The process of overwriting is possible thanks to the use of technology itself. When considering this type of re-performing strategy, the monumentality of the undertaking is important. Each of Abramović's exhibitions is now described in terms of the largest event in the field of contemporary art; each is based on re-performing strategies. Abramović has become synonymous with the commercialization of performance art. Her approach to her own art, to the bodies that re-perform her actions, is commercial and uses precarious practices in relation to the re-performing works of the artist. In this context, the idea of the third strategy proposed by Abramović in the dispute over re-performing, called "embodied documentation," is, as Schneider writes, a strategy for the monumental legislative granting of the right to historicize and monumentalize the original.

It's important to recall that Abramović's investment in "embodied documentation" is aimed at the legislature which bodies, where, and when, can be commissioned to act or take place as embodied documentation. The promotional description of the project for the book *Seven Easy Pieces* describes Abramović's reenactments as "monumental."¹⁴

Abramović's endurance piece *The Artist Is Present* also features a very important re-performative element. It consists primarily of co-presence, exposed by silence and the proximity of direct visual contact. The project was held in the Museum of Modern Art (MoMA) in New York. Over the course of three months, Abramović sat in place, remaining still as she exchanged looks with each person who came to the gallery to sit opposite her. The idea behind the action, combined with the retrospection of the artist's earlier works, was to validate performance art—to introduce it into the context of the exhibition *politique*, and present it in a museum context as a principle of the genre of visual art. *The Artist Is Present* covers a wide range of recordings that are part of the debate on live performances and their technical mediatization. The performance was broadcast on the Internet. The profile of the Flickr Museum provided full insight

¹⁴ Schneider, *Performing Remains*, 132.

into the photographic documentation of its many participants. The action was recorded and edited as a documentary by Matthew Akers, produced by HBO. A stylized 8-bit game of the same title, written by Pippin Barr, was also created because of the performance remediation. The game reflects the situation of the recipient of the performance—from the moment of entering MoMA, until the moment when they sit and pay attention to the performer—and even considers the experience of many hours of guarding their place in the queue.¹⁵ The game is played in real time; if you reach your turn while MoMA is closed, the only possibility is to stand in front of the door and wait for the opening hour. Even the 8-bit game, with its antonymous nature in relation to the major HBO production, emphasizes the monumentality of the documentation. We see technology in the service of something big, and behind this big significance are hidden the economic strategies of the commercial popularization of performance art as a historically sanctioned genre of resistance and subversion.

Without documentation, there would be no access to most of the canonical activities from the very beginning of the development of performance art. Digital reconstructions, as in the example of *The Artist Is Present* and the 8-bit game by Pippin Barr, are also one of the most important creative methods in digital performance art. The issue of liveness is still pertinent in a time when the structures of Internet networks radically affect not only art, but also real life. Jessica Santone claims that the results of that process are a dynamic and ephemeral “remedy” for the loss of performance.¹⁶ Considering this assertion, the primary tool for preserving the ephemerality of performance would be technology. But is documentation necessary for performance to survive? Performance is about disappearance. This statement is always open, corresponding to the sentence from René Magritte’s collage *Je ne vois pas la (femme) cachée dans la forêt* (I do not see the [woman] hidden in the forest), where visual depiction and textual inscription are apparently inadequate and agreeable to either one. A captivating inquiry arises between the act of being seen and the ability to perceive with one’s eyes remaining closed. There is a contradiction inherent in the fact that it is not a corporeal woman—it is just a pictorial representation, and it is unavailable to be seen by male surrealists’ eyes wide shut. In parallel, in the case of live art, what is more significant, performance or its record, life or mediated experience? It’s the pressure between a real object, its presence, and its representation. Performance documentation is not an entity or a loss, but rather

¹⁵ See game website, <http://pippinbarr.com/the-artist-is-present-2/info/>, accessed June 1, 2023.

¹⁶ Jessica Santone, “Marina Abramović’s *Seven Easy Pieces*: Critical Documentation Strategies for Preserving Art’s History,” *Leonardo* 41, no. 2 (2008): 151.

a medium—a figure that only underlines the need for a new reflection on the relationship between the form of presence and the form of representation. This is a relationship in which, according to Philip Auslander,¹⁷ performance is not the final product, but an impulse to register ephemerality and create new contextual analyses. He claims that the relationship between live act and documentation is not an inseparable relationship, and that it can be created even when the live act has not happened in the first place. In such a situation, the relationship between what is documented and the result of documentation has a phenomenological character that is based on the ultimate perception of the audience.

Second Live Art

The situation becomes more entangled when the relationship between live art and the audience enters virtual reality. Between 2007 and 2010, the Italian duo of performers Eva and Franco Mattes realized their project *Reenactments*. This series of achievements reached much more deeply into the technological realm. The duo has performed the repertoire of Marina Abramović and Ulay's *Imponderabilia*, *The Singing Sculpture* by Gilbert and George, Vito Acconci's *Seedbed*, *Shoot* by Chris Burden, and *Tapp und Tastkino* by Valie Export and Peter Weibel. Mattes and Mattes called this action "historical performances inside video games."¹⁸ All these reconstructions took place on the Internet and had three elements. The first was a live reconstruction that happened in Second Life. Mattes and Mattes took part in this role as avatars of themselves, which looked just like them. The second level was a live action to be watched on the wall of a gallery. The audience gathered in the art gallery could take part, but this role was passive and limited only to observing the visualization of the Internet interaction on screen. By contrast, anyone who was sat at a computer could take part in the online activities from the comfort of their own home, controlling the behavior of their own avatar in Second Life. A documentation of the whole series was exhibited as an installation in an art gallery as well. All the performances had the same course of events, and the same elements as the original actions. The only difference was the situation between the sender/performer-performance and the recipient of the message. Only in the Second Life situation did direct contact—or an autopoietic feedback loop, which Erika Fischer-Lichte wrote

¹⁷ Philip Auslander, "The Performativity of Performance Documentation," *PAJ: A Journal of Performance and Art* 28, no. 3 (2006): 1–10.

¹⁸ See project website, <https://01001011010101.org/reenactments/>, accessed May 30, 2023.

about as the condition of performance art¹⁹—have a place. The performances could be controlled by the players participating in Second Life, and it was on the Internet that relationships and feedback were created between performers and participants. After the performative action, an exhibition presenting the whole series of realized performances, built from recordings of the entire course of the game, was put together. The documentation considered the reactions of the audience, who had observed the game both offline and during some of the live activities in the gallery. The gallery attendees had had no influence on the course of the online events.

Records of all the realizations within this project are available on the artists' website. Users of the website were now in a more privileged position than viewers in the gallery, because of their interaction with the software; the users of the website could freely control the choices in every performance. The classic position of the gallery viewer in this interactive system was passive, exposed to phenomenological keys of interpretation. In the gallery there was no autopoietic feedback loop, the main condition for the transformation of performance into reality. The feedback loop was instead created by the users of the game in the artificial reality of Second Life. By this project, Eva and Franco Mattes contribute to the confirmation that there is no direct experience. Everything is mediatized.

Robotic Art Reenactments

As part of the 2016 International Digital Art Biennial (BIAN), presented by ELEKTRA in Montreal, with the guiding theme “art made by machines,” Nelmarie du Preez presented a project involving reconstruction: *Loops of Relation*,²⁰ a reinterpretation of the most famous performances of Marina Abramović and Ulay. As with the tandem of artists to whom du Preez refers, he also performs in a duo. But in this case, it is a duo composed of du Preez and Gui. Gui is a robot with which du Preez reinterprets the famous actions of Abramović and Ulay. The project includes four tracks: one solo performance by Abramović, *Rhythm 10* (1973), and three duo performances by Abramović and Ulay: *AAA-AAA* (1978), *Light/Dark* (1977), and *Rest Energy* (1980).

The *Loops of Relation* series explores the theme of the autopoietic feedback loop, which as previously stated, Fischer-Lichte considers to be one of the basic

¹⁹ Fischer-Lichte, *The Transformative Power of Performance*, 47.

²⁰ See *Loops of Relation* website, <http://nelmariedupreez.co.za/loops-of-relation.html>, accessed May 30, 2023.

aesthetic features of performativity. According to Fischer-Lichte, the most important exponents of performativity aesthetics are the relationship of change in the performer and in the recipient, the work of art understood as action, and the principles of politics and social co-presence—all common and individual factors of performance acts, which constantly transform and exchange roles. Nelmarie du Preez refers to this directly in the title of her series—with the difference that in the case of her performances, the exchange takes place not between the performer and the audience, the subject and the collective, but between the woman and the machine, the human performer and the non-human performer. As in *Seven Easy Pieces*, du Preez's reenactment is another project built based on performance documentation. Marina Abramović presented *Rhythm 10* for the first time in 1973 in Edinburgh. Using ten knives, a white sheet of paper, and two tape recorders, she stabbed each knife, one by one, between her fingers, increasing the tempo. Each such rhythmic course of action was recorded on a cassette; the tape was then played back simultaneously with a new course of knife movements, taking place in the same time sequences, and immersing the knife in the same rhythms and locations. The idea behind this work is to document and recreate the action and to synchronize past, present, and future. In the *Loops of Relation* project, Nelmarie du Preez recreates all four performances with the difference that instead of a human being, there is a robot. The duo—the woman du Preez, the robot Gui—explores the boundaries between du Preez and machine, between the human performer and the non-human performer. The robot leads with the knife in the action *Rhythm 10*; it holds a stretched bow in *Rest Energy*. In another show, *AAA-AAA*, Preez screams at an image of herself on a monitor screen, and in *Light/Darkness*, she hits her own cheek with an image displayed on the same screen. Du Preez says that her work is about interactions between people, objects, and new technology, about the fascination with the politics of trust in machines and their impact on interaction and innovation.²¹ The *Loops of Relation* project was made as a video performance and functioned as a video installation. The construction of the Gui robot was based on freeware software and inspired by DIY aesthetics. The whole series was part of a reconstruction of classic performances by new-media artists. It should be highlighted, nonetheless, that the primary objective was to convey the idea of interdependence for novel perspectives rather than to record and prevent the original action from being lost. The reconstruction medium is the thing that matters. By comparing the visuals of the original piece with the reenactment,

²¹ Mark Westall, "The London Open 2015 Q&A with South African Artist Nelmarie du Preez," *FAD Magazine*, <https://fadmagazine.com/2015/07/16/nelmarie-du-preez/>, July 16, 2015.

we can observe the transformational layer and the changes the performance medium has undergone. Performance artists are constantly looking for innovative methods to comprehend emerging technologies.²²

The Technology Is Present

Since Abramović's vision of the performance medium is always ahead of current conceptions of performance art, her work marks a pioneering point of departure at a crossroads of existing paradigms of life art and technology. In March 2018, at Art Basel held in the Hong Kong Exhibition and Convention Centre, she presented her VR piece entitled *Rising*, produced in collaboration with Acute Art and HTC Vive.²³ On October 22, 2020, during the so-called post-pandemic period, Abramović's *The Life* project, billed as the world's first mixed-reality performance artwork, went on sale at Christie's.²⁴ From performance in augmented reality Abramović moved to performance hosted on a blockchain. In June 2022, the artist launched an NFT of *The Hero* in the Web3 environment. *Hero* comprised a performance and its documentation from 2001, one of the artist's most personal art pieces, commemorating her father. All three activities were carried out using recent technologies, VR, AR, and NFT, as media that enable the dematerialization of a work of art. As Abramović claims, performance art is always essentially immaterial. She indicated that the first thing that came to her mind in connection with the relationship between capital and the intangible of performance was Yves Klein's work *Zone de Sensibilité Picturale Immatérielle* (zone of immaterial pictorial sensibility) from 1959. Klein's idea was to sell ownership of empty space and to confirm the transaction in the form of a receipt, in exchange for gold. In the case that the buyer wished, the piece could then be completed in an elaborate ritual where the buyer would burn the receipt, and Klein would throw half the gold into the Seine. The ritual was to be performed in the presence of an art critic or prominent dealer, the director of an art museum, and at least two witnesses. Abramović says:

²² About the relationship between performance and technology, and the beginnings of its documentation, see Małgorzata Dancewicz, *Performans postmedialny: Współczesny kontekst technologiczny działań performatywnych* (Wrocław: Oficyna Wydawnicza Atut, 2019), 260.

²³ See <https://www.vive.com/us/newsroom/2018-03-07/>, accessed June 29, 2023.

²⁴ See <https://www.christies.com/features/Marina-Abramovic-The-Life-10193-3.aspx>, accessed, June 29, 2023.

All that was left was just ashes in the river. If you think about performance art, too, it's always about immateriality. You can't frame and hang a performance on the wall. In my opinion, this ritualistic moment ignited conceptualism and influenced me very early on in my development as a performance artist.²⁵

But this immateriality, declared by the artist as a main component of performance art, strictly related to new technologies, is, addressing such diverse media studies paradigms as Materialist Media Theory,²⁶ Critical Infrastructures Studies,²⁷ and Media Ecologies,²⁸ hidden materiality. In such a declaration by Abramović I see rather a meaning connected with the tension between the material and immaterial, and the concealment or discovery of what seems immaterial but in fact has economically and geopolitically dependent structures. As the artist recounts in numerous interviews given during the pandemic, her attitude toward technology has changed radically over time. Once, she claims, she believed that technology was an obstacle to the flow of energy in the feedback loop, making difficult the real performance-art experience. Nowadays, she finds that there is no potential force in technology itself, but that its specific use generates specific meanings.²⁹ This constructivist turn on the one hand comes from the increase in the possibilities offered by the latest technological inventions. On the other hand, it is the aftermath of the pandemic, a time that has accustomed societies to communication mediated mainly by webcams. VR performances, such as *Rising*, says the artist, allow for the removal of the limits of the body. Abramović's work has always been about pushing mental and physical limits, which is afforded by virtual reality. Creating using a specific digital medium and filling it with content allows the opportunity to do things that would not be possible under any other conditions. The *Rising* VR is based on empathy in experiencing climate change. The artist created herself an avatar submerged in water. The installation has elements related to floods and the melting of glaciers. Her tactic is to use the viewer's emotions and empathy, which, according to the

²⁵ See <https://nft.circa.art/about>, accessed June 29, 2023.

²⁶ Oliver Carter and Iain A. Taylor, eds., *Media Materialitie: Form, Format, and Ephemeral Meaning* (Bristol: Intellect, 2025).

²⁷ Jens Ivo Engels, ed., *Key Concepts for Critical Infrastructure Research* (Wiesbaden: Springer vs, 2018).

²⁸ Matthew Fuller, *Media Ecologies: Materialist Energies in Art and Technoculture* (Cambridge, MA: MIT Press, 2007).

²⁹ Vpro Cinema, "Marina Abramovic on Virtual Reality, and Her One Brilliant Idea as an Artist," YouTube, November 13, 2018, video, 15:14, <https://www.youtube.com/watch?v=5mog52S7BME>.

artist, can and should direct them toward the right action.³⁰ The feedback loop is still the most important element here, as in the case of canonical works like the *Lips of Thomas*. In this VR game the artist is immersed in a container filled with water, placed in an urban landscape radically deformed by a catastrophic change of climate, and will drown or not, depending on the recipient's reaction of empathy and willingness to help. She wonders if it will be possible to experience a feedback loop through HTC glasses,

if immersive play will increase empathy for the present and the future victims of climate change, and how this experience will affect players' consciousness and energy. In real life, when someone rescues another person or offers aid of any kind, there is a transfer of energy. The recipient of the help and the provider of aid are both affected by the experience. Will the same happen in virtual reality?³¹

"The Life—The World's First Mixed Reality Performance Artwork"

In these words, perhaps alluding to *The World's First Collaborative Sentence*, created by Douglas Davis, Marina Abramović's mixed-reality performance was advertised on Christies website.³² As a continuation of *The Artist Is Present* at MoMA and *512 Hours* at London's Serpentine Gallery, returning to the Serpentine, Abramović invited the public to participate in a 19-minute mixed-reality performance modeled after those offered by the artist in the two previously mentioned performances, based on presence in the here-and-now, but in this case, a presence mediated by Mixer Reality technology. Pioneering headsets, an application made by Todd Eckert and Tin Drum's production, Christies as the first auction house that has ever sold a mixed-reality piece: all this makes the pioneering vision—the presence of the artist in digital reality—come alive. Marina, as a kind of real natural-size hologram, performs in a five-meter circle. The audience watches it through MR glasses. She claims that creating an authentic, alternative, digital version of herself with this new technology gave her endless

³⁰ Eye Filmmuseum, "Eye Xtended: Marina Abramović—Rising" YouTube, June 15, 2018, video, 1:00 <https://www.youtube.com/watch?v=AWbfekBp8TA>.

³¹ Ashleigh Kane, "Future World: Marina Abramović on Using VR and Empathy to Help Save the World," *Daze Digital*, May 15, 2019, <https://www.dazeddigital.com/art-photography/article/44432/1/marina-abramovic-rising-is-using-vr-and-empathy-to-help-save-the-world>.

³² See <https://www.christies.com/features/Marina-Abramovic-The-Life-10193-3.aspx>, accessed June 29, 2023.

possibilities of experiencing the limits of her own body, the boundaries between her and the public, and the boundaries between herself and her visual representation (she stood herself in front of herself when entering the application) and the boundaries between the past, present, and future. Thus, the project has wide methodological boundaries as well as production and distribution boundaries. The authors of the installation point out its preservational character, the possibility of retaining the image of the artist as a real presence, real because it is felt by the audience in a real way and making this feeling available to people living in the future, even when no one will remember the existence of such an artist. There is a kind of re-evaluation of the notion of documenting performance here. It is no longer documentation but making present. This is not the picture of Abramović, though she was captured by 32 cameras and a sophisticated algorithmic system on a green screen, but her presence that we can experience here and now in real-time.

Her fascination with imaginary space has also spread to other areas of immateriality, such as Web3 space. *The Hero 25FPS NFT* project, described as a blockchain performance,³³ is based on an energy-efficient Tezos blockchain and offers its audience the possibility of collecting a single or multiple frames from Hero artwork. A quarter of the profits from the project will be donated to the activists' work within Web3 space. A special Hero Grant is created to provide opportunities to people who have ideas of how to shape a better future, in the sense of political, moral, and aesthetic freedom.³⁴ The project commemorates and is dedicated to the memory of the artist's father, Vojo Abramović, who, in 1968 in the former Yugoslavia, publicly, in the middle of a student gathering in a square, renounced his membership of the Communist Party. We need less artists and more heroes, especially in these difficult post-pandemic and war times, as she declares, at the same time historicizing the strategy of making reperformances.

The line separating what is technological and non-technological in performance art is hazy because the ontology of these performances exposes their technological nature, which arises from the problem of performance documentation, understood as the duration of the performance in the past, present, and future. When viewed as a medium, performance is a relapsed medium that reveals information through mediation in reenactments and recording. The way that performance and technology are related will change—not just in an organizational and distributional sense, but also ontologically, altering the essence

³³ Circa, "Marina Abramović: The Hero," YouTube, June 24, 2022, video, 2:54, <https://www.youtube.com/watch?v=iG-39d4lrviM&t=54s>.

³⁴ See project website, <https://circa.art/marina-abramovic-the-hero-25fps-grants/>, accessed June 27, 2023.

of performance in an epistemological sense and changing how performance and technology are discussed. As David M. Berry and Michael Dieter write in *Postdigital Aesthetics Art, Computation and Design*, we live in a time when the divisions between material and digital, online and offline, and originals and documentations are becoming obsolete:

the historical distinction between the digital and the non-digital becomes increasingly blurred, to the extent that to talk about the digital presupposes a disjuncture in our experience that makes less and less sense in the experience of the everyday. . . . Through the increasing reality of a deeply embedded computational horizon, computational technology institutes new and ever more effective, more delightful and pleasant forms of experience instituting new diagrams of social control and intensified social cohesion.³⁵

Bioart Reenactments

Remediation can also be carried out by rematerializing presence at the molecular level. An example of such a performative action on the border of tissue corporeality and visual representation is a kind of reconstruction a Joseph Beuys action, the project *Hare's Blood+*.³⁶ The performer Lucie Strecker and endocrinologist Klaus Spiess recovered, in a molecular laboratory, the DNA of a rabbit from a lithography performed by Beuys. The isolated animal genome was combined with yeast cells. The newly created hybrid creature was put up for public auction as part of the Biofiction Festival at the Vienna Museum of Natural History. The artifact was connected by an interface with the auctioneer's audience in such a way that as the price of the yeast increased, the yeast multiplied, and when the number of bidders decreased, the yeast-production process stopped. Thus, *Hare's Blood+* was both a documentation of Joseph Beuys's work and a performance that generated meaning based on this feedback loop, which concerned the dependence of the market value of the work of art.³⁷ The creators of the project explain how they bring *Hare's* performance back to life:

³⁵ David M. Berry and Dieter Michael, eds., *Postdigital Aesthetics: Art, Computation and Design* (London: Palgrave Macmillan, 2015), 3.

³⁶ See project website, <https://cargocollective.com/streckerlucie/Hare-s-Blood>, accessed June 27, 2023.

³⁷ About this relationship, the threads of performance, and the topic of blood, see Małgorzata Dancewicz, "Performatywna Trans/Fuzja: Poskramianie symbolicznego wampira," *Kultura Współczesna* no. 2 (2018): 101–111, <https://nck.pl/upload/2019/01/ogd-performatywna-transfuzja.pdf>.

When they transfer the historical relationship between the animal's genes and its environment to the connection between the synthetic gene and the engaging audience, living recording devices change history and make the animal's past and present mimic each other. This transfer brings incomplete traces of memory, shifts parallel stories and creates speculative fictions. The relic becomes the same action that emerges from a combination of genetic discursive and immersive factors. Thus, DNA engineering eventually becomes a nontrivial task to bring the past back to life in an unpredictable future.³⁸

Bioart performance is the result of complex technological processes—it creates non-human beings that need a complex network of technological tools, without which they cannot survive on their own in a foreign environment. As performances, bioart beings are therefore destined to disappear. The only chance to prolong their existence is remediation through a process of documentation. In a sense, bioart defends itself against reproduction, although documentation is one of the main conditions for its functioning. For this reason, reconstruction as an art tactic can be well applied here.

In the framework of documentation issues, the new medium of bioart requires greater attention. In 2017, George Church and Seth Shipman conducted an experiment in artistic meaning at the Wyss Institute at Harvard University. A famous sequence of moving images depicting a galloping horse, shot by Edward Muybridge in 1878,³⁹ was recorded and read from the DNA of bacteria. The sequence of movements reconstructed from Muybridge's *Human and Animal Locomotion* series was then coded in a live camera.⁴⁰ The message containing a galloping mare was reproduced in many generations of bacteria and decoded without any loss of image quality. Experiments encoding single images in bacterial genes are carried out over a long period of time, as are activities exploring the possibility of recording digital data in biological material. However, it had never been possible to encode an animated gif in a living cell before. The experiment was conducted using CRISPR/Cas9 technology. CRISPR is a system used to protect single-celled organisms from bacteriophage attacks. With CRISPR/Cas9, a bacterial cell is able to store data about viral attackers within its own DNA. This

³⁸ From the project description on the Prix Ars Electronica 2015 website, <https://archive.aec.at/prix/212658/>, accessed May 20, 2026.

³⁹ About Muybridge's meanings and connotations, see Małgorzata Dancewicz. "Performans technologiczny jako performans postmedialny," in *Media, nowe media czy post-media sztuki*, ed. Aleksandra Łukaszewicz-Alcaraz et al. (Szczecin: Wydawnictwo Wydziału Malarstwa i Nowych Mediów Akademii Sztuki w Szczecinie, 2019), 87–93.

⁴⁰ Benjamin Boettner, "New CRISPR Technology Takes Cells to the Movies," *The Harvard Gazette*, July 12, 2017, <https://news.harvard.edu/gazette/story/2017/07/taking-cells-out-to-the-movies-with-new-crispr-technology/>.

information is then stored and passed on to future generations of bacteria. George Church and Seth Shipman translated the code 0:1 of five Muybridge photos into a nucleotide code in virus DNA applied to *E. coli* bacteria.⁴¹ The DNA chain of the bacteria has stored coded information containing Muybridge's animated gif for generations, and in the correct order as introduced by the engineers.

The experiment has a medical purpose, but in addition to such applications, it also opens up new possibilities for data collection and storage. One DNA chain can store about 455 exabytes of data, which is more than 470 million terabytes.⁴² The speed at which data is generated on the Internet is rapidly increasing. Internet users produce about 30 GB of data per second. Thus, genetic engineering can solve the problem of excessive data collection, which is characteristic of the Internet age. At the same time, in the field of art, the consequence of performing on living material will be the rematerialization of the medium. The body as a medium of bioart performance will gradually evolve towards tissues produced in biotechnology—still oscillating around matter, but now in a new sense. Genetic material thus constructed as the immortal cell line HeLa, cultivated as a tissue culture, can function indefinitely. Muybridge's horse can easily recreate an endless run encoded in the genome. Its animated gif can be restored in biomaterial in a more efficient way than in traditional data storage.

Why does this matter for performance art? Biomaterial is increasingly being used by performance artists. Due to its elusiveness, its transformative power, and its concentration on materiality, bioart is ontologically close to performance art. Jens Hauser claims that biotechnology is a new kind of media-artistic means, a way of responding creatively to technoculture and, at the same time, a performative process. This performativity is about rematerializing and reproducing a work of art and transforming the production of representation into the production of presence.⁴³ Hauser calls these strategies, characterized by a performative paradigm that valorizes the presence of a living work of art, the tendency to valorize presence as a staging of authenticity. The staging of authenticity is a procedure that showcases the organic presence of bioart and stresses the process of working with it, as well as how it interacts with the viewer. This interaction with the transient, ephemeral act is what gives bioart

⁴¹ Seth L. Shipman, Jeff Nivala, Jeffrey D. Macklis, and George M. Church, "CRISPR—Cas encoding of a digital movie into the genomes of a population of living bacteria," *Nature*, no. 547 (2017): 345–349, <https://www.nature.com/articles/nature23017>.

⁴² George M. Church, Yuan Gao, and Sriram Kosuri, "Next-Generation Digital Information Storage in DNA," *Science* 337, no. 6102 (2012): 1628, <https://www.science.org/doi/10.1126/science.1226355>.

⁴³ Jens Hauser, "Biotechnologie as Mediality: Strategies of Organic Media Art," *Plastik*, no. 2 (2011): 129–136, <https://plastik.univ-paris1.fr/biotechnologie-as-mediality-strategies-of-organic-media-art/>.

its performativity. In a purely hypothetical sense, we can only imagine the documentation process in the performance of the *Hare's Blood+* bacterial cell.

Extreme Liveness

In the case of this type of strategy are we dealing with something other than performance? The starting point for the links between different forms of performative mediatization was the combination of art and technology in documentation, which allows for a return to the individual factors of the analyzed performative material at any time. Such access to documentation and subsequent multiple performance experiences creates a level of iteration feasibility in digital performance. What is repetitive is what is repetitive and plays repeatedly. Video recording, audio recording, and photography provide constant access to the experience of and thus to the repetition of performances. The possibility of a continuous return to the entire performative action or selected moments of it, as well as the transition from analogue to digital technologies in all dimensions of reality that took place in the 1980s, were the basis for the performative medium's transition from materiality to immateriality. Domenico Quaranta⁴⁴ explores a concept proposed by Lev Manovich, who introduced a distinction between "Duchamp Land" and "Turing Land."⁴⁵ Duchamp Land covers the sphere of the materiality of the work of art. Turing Land is the area of the computer as meta-medium. The art objects of Duchamp Land are characterized by materiality, iconicity, and content. Objects from Turing Land, an immaterial area of new media, are created with software and are actions, not artifacts.

One more element could be added to these two categories—Muybridge Land. This would be a field in which software, hardware, and wetware cooperate in the hard and soft cybernetic spheres, making it difficult to separate them. In Muybridge Land, an animated horse can gallop endlessly, copying genome structures in a feedback loop between itself and the environment. The concept of performative autopoiesis has been adopted from biological science. Introduced in biology by Humberto Maturana and Francisco Varela,⁴⁶ it means in this context a self-renewing and self-sustaining system, a loop of mutual experience between the performer and the viewer. In bioart, due to its technological

⁴⁴ Domenico Quaranta, *Media, New Media, Postmedia* (Milan: Postmedia Books, 2010).

⁴⁵ Lev Manovich, "The Death of Computer Art," *Rhizome*, October 22, 1996, <http://rhizome.org/community/41703/>.

⁴⁶ Humberto Maturana and Francisco Varela, *Autopoiesis and Cognition: The Realization of the Living* (Dordrecht: D. Reidel Publishing Company, 1972).

character, we are also dealing with a different kind of interdependence—one of tissue and cell culture. This self-reproduction of biological facts is taking shape. The conventional link between performance, documentation, and autopoietic reconstruction is predicated on the ongoing reconstruction of the apparatus, meanings, contexts, and environments of particular performances. RoseLee Goldberg, in *Performance: Live Art Since the '60s*, calls performance “the first medium with no real name.”⁴⁷ Goldberg draws performances from the avant-garde of the late nineteenth century when new technologies were being born. At the same time, she claims that contemporary performance is created by new technologies such as software, hardware, blogs, zines, and VR. With these new technologies that create digital feedback loops, performance is still being discovered and experienced by new users of software. Goldberg writes:

Historically, performance art has been a medium that challenges and violates borders between disciplines and genders, between private and public and life and between everyday life and art, and that follows no rules. In the process it has energized and affected other disciplines—architecture as event, theater as images, photography as performance. . . . By its very nature the medium of performance is in constant evolution, and so it is inevitable that performance artists should now appear to straddle new technologies and their avant-garde inclinations.⁴⁸

Digital reenactment should not be treated as a kind of documentation that keeps performance art from disappearing, but as a kind of mediatization of meaning. At the same time, this meaning changes, depending on the specific temporal and spatial situation—which shows that the medium of performance is constantly changing. It also shows that artists use reconstruction strategies not to archive and record past art before it disappears, but to open performance art to new, current contexts and meanings. Referring to the theory of remediation, Bolter and Grusin find that “new media are thus fully involved in the contemporary struggle to define the self as both embodied and mediated by the body.”⁴⁹

Such a point of view turns the perspective from art concentrated on the body to the body concentrated on new media. From a historical approach to the aesthetics of performativity, as proposed by Fischer-Lichte, the feedback loop is

⁴⁷ RoseLee Goldberg, *Performance: Live Art Since the 60s* (New York: Thames & Hudson, 2004), 9.

⁴⁸ Goldberg, *Performance*, 30–31.

⁴⁹ Jay David Bolter and Richard Grusin, *Remediation: Understanding New Media* (Cambridge, MA: MIT Press, 1999), 240.

the basic condition of performance. If we consider performance as a medium, where digital reenactments are remediations, the feedback loop always remains the most important constitutive feature of any performance. Digital reenactment transforms, reshapes, and adopts performance art in the process of remediation. This development's procedures are founded on the feedback-loop relationship. *Seven Easy Pieces*, *Second Life Reenactments*, *Loops of Relation*, and *Hare's Blood+* recreate mutual networks of relationships—in which history and the present, direct and indirect experience, mutually exchange their meanings. Perhaps this is what is left of Fischer-Lichte's aesthetics of performativity: the phenomenon of autopoiesis in the convergence of the medium of performance, where the hare is a dead hare, a documented hare, and a hare brought back to life at the molecular level. Like the hare's genes, reconstruction brings the past back to life in an unpredictable future. It remains to be stated that a hare is a hare, is a hare, is a hare—as liveness extreme in the loop of material and digital remediations. The performative feedback loop no longer takes place between the body of the performer and the body of the recipient of the performance, but between the present or absent space of the body's materiality and its digital representation. The importance of corporeality in performance arises in the age of deepened mediatization considering the emergence of new technologies through new mediatization technologies. The physical presence is legitimized: new technologies acting as the interface between the body's presence and absence in digital performances at the same time are the cause of, and tend to, the dynamic tension between the body's presence and absence; the materiality and immateriality of medium and media, which is conditioned by digitality, forms the basis of performance in today's world. In legitimizing the re-practices of digitality we recover the materiality of the body, because the immaterial always refers us to materiality, in repetition and re-practice, in a similar sense in which performance becomes preserved in its disappearance. Returning to René Magritte's work *Je ne vois pas la (femme) cachée dans la forêt* (I do not see the [woman] hidden in the forest), the material body of a woman, like the body of a hare locked in a loop of bidding, is invisible, but the tension between the presence of even the mere image of the body is what re-creates the meaning of performance art.



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MAŁGORZATA DANCEWICZ-PAWLIK

Assistant Professor at the Department of Cultural Studies, University of Wrocław. A graduate of the Institute of Audiovisual Arts, Jagiellonian University in Kraków, she combines research on new media art, focused on art&science, liveness, and new technologies in art, with experimental artistic practice in audiovisual performance art. She is the Chief Curator of the Intermediale Festival (www.intermediale.com) and Co-creator of Inire duo (www.inire.net). She has carried out eye-tracking experiments at the Department of Graphic Design, SWPS University of Social Sciences and Humanities and at Digital Humanities Lab, at Institute of Library and Information Science University of Wrocław. She teaches and cooperates also with The Eugeniusz Geppert Academy of Art and Design in Wrocław.