

Performing Video Conferencing and VR for a “Real Virtual Life”

A Warm Welcome to Distant Socializing!

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For Alfred & Inge, in gratitude.

While face-to-face contact was impossible during the pandemic, performing arts practitioners were able to continue their work by using technological applications for telecommunication and telepresence. There are two constituent systems: video conferencing and virtual reality (VR), especially VR rooms from the world of gaming, which are part of desktop VR. Such tools enabled theater and performance practitioners to engage in a range of activities remotely, including streamed live performances, online rehearsals, and the realization of a genuine digital format called nettheater. The focus of this paper is the cultural effects of these formats, specifically their contribution to digital cultures. The thesis explored here is that they are generating virtuality as its own reality, a “real virtual” condition. Real virtual manifested strongly during the pandemic due to the expansion of digital cultures into a living in “distant socializing.” A historical contextualization of performing telepresence makes visible a regime of the real virtual. It generates a soft adaptive and anticipative relationalization, supporting digital cultures for which techno-human cooperation is constitutive. The regime tilts between technocratic subjection and a fragile agency of happily “gaming around”¹ in digital entanglements, unfolding a subject of virtuality within an episteme of contingency.

1 The term “gaming around” describes the transformation of the cultural technique of playing, the relocation of its interplay of rules and agency, as well as of immersion and distance/reflexion, into the realm of the digital and its operativity, dealing with decision instead of choice and with connectivity instead of relating.

Introduction

In this paper, I explore performances and installations engaging with telecommunication and telepresence² enabled by, among other things, technologies of video conferencing. The focus lies on the specific constitution and relevance of telepresence, which is defined in a general way by Shen and Shirmohammadi: “Telepresence, also called virtual presence, is a technique to create a sense of physical presence at a remote location using necessary multimedia such as sound, vision, and touch” (2008a, 849).³ It was the pandemic situation that made telepresence existential and, as a result, highly valuable. This means putting physical existence under the technological conditions of digital applications (virtualization), making it thereby its own viable reality: a “real virtual” as a “living in distant socializing.” This understanding of virtuality, generated prominently by performing telepresence, expands its existing meanings and practices⁴ and becomes a crucial, not yet fully researched, constitutive part of digital cultures. Against this background, a historical perspective might help to specify the media-cultural effects of telepresence, and performing with telepresence, that come from its special interpretation and configuration of virtuality.

For further and deeper exploration, the field of performing telepresence and its specificity must be described at the outset as it is initially quite counterintuitive and, additionally, expands—for good reasons—the book’s focus on video conferencing. The specificity of telepresent performances, also called nettheater (see Heinrich-Böll-Stiftung and nachtkritik.de 2020), consists of the fact that it combines technologies of video conferencing with systems for virtual reality (VR).⁵ “Video confer-

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- 2 The notion “telepresence” was coined in 1980 by Marvin Minsky, who used it in the sense of acting at a distance via smart robotic devices (Shen and Shirmohammadi 2008a). It became a well-known concept in the 1990s, during a boom in the VR performance and telematics (see Decker and Weibel 1990). Even if it may appear antiquated, the notion is useful again due to the relevance of telepresence in the situation created by the pandemic. It is also relevant today because the term is replaced by the notion “digital liveness” (see section 2), thus obscuring important connotations and the normalization of “telepresence,” including its technological conditions.
 - 3 Shen and Shirmohammadi explain the difference between telepresence and virtual presence from a technical point of view: “telepresence is a networked paradigm by nature, whereas virtual presence does not have to be networked and can run completely locally” (Shen and Shirmohammadi 2008b, 267).
 - 4 Virtuality has previously been seen as something beyond reality, either as a “hyperreality” (Baudrillard 2004) or as a not yet actualized reality (Esposito 1998; Klappert 2020). Further explication in this introduction.
 - 5 Shen and Shirmohammadi note: “Virtual Reality is the technology that provides almost real and/or believable experiences in a synthetic or virtual way” (Shen and Shirmohammadi 2008b, 962).

encing” involves not only the various software applications such as Zoom or Jitsi, which were an essential and notorious element of the pandemic. The term has been in use since the 1970s as a generic label for technologies that enable distant operations via the live-transmission of video images of persons through networked infrastructures (e. g., satellites in the 1970s, now the Internet) (Shen and Shirmohammadi 2008a; Shen and Shirmohammadi 2008b). Virtual reality (VR) systems, the second strand and category forming telepresence in nettheater, come in as desktop VR (Shen and Shirmohammadi 2008b)⁶ known as graphical video games, being formed in contrast to video conferencing systems within spaces generated by data only.

The main point and argument is that nettheater’s amalgamation of these two strands of technology, and their prehistory⁷ and epistemology, transforms each component, resulting in the formation of its own reality (real virtual) of living in distant socializing. First, the adaptation of video conferencing becomes itself virtual within the intermingling with VR, which is quite counterintuitive at first glance, as video conferencing is referred to as (tele)communication, whereas virtuality is, as mentioned, more commonly linked to data spaces, without reliable links to the physical. In other words, the understanding of virtuality is expanded. Second, virtual environments of desktop VR, such as VRChat or Mozilla Hubs (see Sauerländer 2020; Diesselhorst 2021), are transformed within performing telepresence into media of telecommunication. To better understand the specificity of this transformation, it should be noted that this strand shows two subgroups: immersive VR, and desktop VR; the latter is used in nettheater.⁸ Whereas immersive VR is a very solipsistic and only locally available setting, offering visitors the experience of immersive encounters within highly speculative data driven virtual environments that appear in VR glasses, desktop VR is used for performing games online, which

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- 6 This notion is proposed by Shen and Shirmohammadi, distinguishing it from immersive VR, used with, for example, head-mounted displays. The authors offer this definition: “Desktop VR uses a computer monitor as display to provide graphical interface for users. It is cost-effective when compared to the immersive VR as it does not require any expensive hardware and software and is also relatively easy to develop” (Shen and Shirmohammadi 2008b, 963).
- 7 In section 1, the history of video conferencing systems as technologies for telepresence since the 1970s is unpacked. These systems have undergone different modifications, changing from a “third-space-telepresence,” as it is named in this paper, to a ubiquitous digital liveness (see section 2). For the prehistory of VR systems/desktop VR, see the following footnote.
- 8 Due to limited space, the history of VR systems/desktop VR, building the second constitutive category and strand of telepresence as real virtual, cannot be covered adequately. The technology belongs to the large domain of gaming cultures, starting in the 1970s with text-based MUDs, also in theater with MOOs, the ATHEMOO system (Burk 1999), for example, for digital theater role play, followed by graphical MUDs, so-called massively multiplayer online games (MMOs) (see Pepe 2020). This line of desktop VR was implemented 2014/2017 in the platform VRChat.

also encompasses social exchange. The crucial point is that once desktop VR is used in performances, its focus shifts from gaming together to, on the one hand, exploring conditions and possibilities of imagination for absent things, persons, and situations⁹ and, on the other, the researching and testing of modes of telepresent liveness. This shift concerns the traditional formation of theater and performances which is predicated on copresence—being at the same time in the same space—as well as on staging absence, to be filled by audience imagination. Once theater and performance become virtual, their traditional constitution is reinvented under the technological conditions, transforming technology at the same time. Within nettheater, virtuality not only orientates toward telepresent corporality and sociality, but more importantly, it makes an essential contribution: the transformation of desktop VR into a real virtual, enabling an existence in distant socializing, as shown by theater during the pandemic.

To sum up, the encounter of video conferencing and desktop VR offers not only the ability to act and communicate with and at a distance but transforms virtuality into a real virtual of being in, and living in, distant socializing. This unfamiliar understanding of virtuality that we see emerging from performing telepresence goes beyond traditionally held concepts. Existing concepts of virtuality fall into two camps, both of which agree that the virtual is something special beyond reality. The first camp sees virtuality as another domain and sphere, threatening to collapse the difference between the real and the virtual. As such, it allegedly generates a “hyper-reality” (Baudrillard 2004), which exists purely technologically without any reference to reality. The second camp sees virtuality as a potential (Esposito 1998; Klappert 2020) waiting for its actualization, forming a culture and epistemology of being-in-contingency (Klappert 2020).¹⁰ As such, according to Klappert, virtuality is always real.

Within performing telepresence, however, virtuality is no longer interpreted as the menacing “other” of the “real” reality or as a more adequate model of reality rooted in the actualization of options but as its own reality (real virtual) of distant socializing. Thus, the performative intermingling of both strands (telepresence and VR) under pandemic pressure crystallizes the objective of telepresence and virtuality as influenced by telepresence. That objective, held since the 1970s, is to become its own fully implemented reality (real virtual) equal to non-telepresent realities. The

9 In theater, a chair could be, for example, a queen's throne. For a discussion on imagination versus representation in video gaming and theater, see also Pepe 2020.

10 Furthermore, Annina Klappert rejects the conceptualization of virtuality with the help of the opposites real/virtual, and unfolds it by pairing virtual/actual, which she distinguishes from the description of the virtual as “the possible.” The possible, according to Klappert, is always preconfigured, whereas the actual is constituted in transformation and differences, coming up as an event, an innovation, being unforeseeable and therefore leading to an existence in an epistemology of contingency (Klappert 2020, 11–69).

contribution of nettheater to this “becoming real” is working on a specific body, a mentality, a subject, and an order of sociality for telepresent existences, providing a technologically installed and supported liveness. This complex process becomes understandable only if the intermingling and interplay of video conferencing and desktop VR is considered.

Furthermore, the pandemically accelerated digitalization shows what had been valid since the 1970s: analog events and moments of being are virtual in digital cultures because they are configured in the conditions of technical virtuality (see also Kaszowicz 2020). Therefore, it becomes clear that performing virtuality does not correspond to a history of losing reality (Baudrillard 2004) or to the existing in the permanent transformative actualization of only virtually present options (Esposito 1998; Klapperer 2020). On the contrary, this performing is a training for making the virtual a liveable reality and sociality.

This contextualization and insight help understand what kind of regime produces performing telepresence. It builds the basis for a symbiotic techno-human cooperativity as the constitution of today’s digital cultures. This cooperativity is organized as permanent adaptation and anticipation, evoking a regime of soft relationalization,¹¹ which binds the human and technological together, as though they are genuinely an agency of action and decision. The performances with telecommunication and telepresence are operating physical, perceptive, and social training for this adaptation, tilting between voluntary subjection under technocratic needs, and happy “gaming around”¹² in and with technological entanglements.

To make this context and constitution concrete, the focus for the following analysis of telepresent performances since the 1970s lies on the techno-cultural conditions they generate, concerning: (1) mentality, (2) sociality, and (3) epistemology. The first example refers to telematic performances with the live transmission of video images via broadband technology (category/strand: video conferencing) since the 1970s, which also represents, as mentioned above, the prehistory of today’s video conferencing in Zoom and similar applications. Artists Kit Galloway, Sherrie Rabinowitz, and, later, Paul Sermon brought geographically dispersed people together real-virtually, forming a doubled transgressive body (see also Rieger 2019), and auto-

11 This regime of relationalization is even seen as a “better” view on the human, as unpacked in today’s media studies and cultural studies by, for example, Karen Barad, Rosi Braidotti, and Bruno Latour (for detailed elaboration on this status and the consequences of this hype on “entanglement” see Leeker 2021). It is said that humans can no longer be seen as entities that are at a remove from their environment, but that they are insolvably entangled in and with their environment, becoming something only through intermingled cooperation. This discourse is ennobled as a better understanding of the humanity that could help save the earth and generate more equal societies, because entanglement means a consciousness of togetherness and responsibility.

12 See footnote 1.

s(t)imulation (Lecker 1995) as (1) performatively enhanced mentality. This category of telematic performances is combined today with those of desktop VR, which also becomes, within this context, an environment for the real virtual in distant socializing. Whereas historic performances with video conferencing had the character of sporadic events, contemporary Zoom performances of the *punktlive* theater collective unleash an extension of telepresence's scope, also using social media as enablers of distant socializing in the real virtual. This integration makes distant socializing a part of everyday life, configuring an existence in a ubiquitous digital liveness in today's networked infrastructures. It is within this extension that a (2) telepresent sociality is formed, constituted by hyper-egocentric subjects of virtuality, compensating the dissolution of the individual into data doubles in today's platform economies and their data mining. Becoming social in the real virtual is envisioned as both a warmly welcomed normality and a highly connected recursive loneliness at the same time. Finally, concerning (3) the epistemology of performing telepresence for the real virtual, a performative intellectual "gaming around" in "let's play" becomes interesting. Taking place on twitch.tv, a platform for performing video gaming as live events, "let's play" finally integrates the two strands of video conferencing and desktop VR into an environment of performative and unforeseeable knowledge production, which is like a game of distant socializing. This configuration of the real virtual establishes an epistemology of overburdening within feedback loops of "gaming around" with linguistic fragments, making knowledge and understanding a happy performance of contingency.

The following analysis section is structured in two parts. Part 1 extensively examines the history and presence of the (1) mentality of the real virtual in performing telepresence in order to show their relevance. Due to limitations of scope, part 2 will focus more informally—with less depth and no historical reconstruction—on the (2) sociality and (3) epistemology of the real virtual, as generated in performances. Despite its brevity, the second section can be seen as an important contribution to the research in this paper, giving an initial but fragmentary and incomplete overview of the real virtual as a constitution of digital cultures in a deep desire for a telepresence existence.

1. Mentality of the Real Virtual: Doubled Bodies and Auto-S(t)imulation

Technologies of video conferencing and performing telepresence not only affect corporality, the body, and its sensuality but also produce their own mentality, intermingling the physical, the perceptive, the spiritual, the emotional, the mental, and the cognitive. This builds a set of people's perceptions, thoughts, emotions, attitudes, and positions, conditioning their being-in-the-world and self-understanding as the

specific telepresent mentality.¹³ This mentality of real virtual is based on the fact that human agents have two transgressive bodies (Rieger 2019)¹⁴ at their disposal, which are intermingled.¹⁵ There is, on the one hand, the physical body in analog spaces. On the other hand, that physical body is connected to a virtual body, an avatar, as seen in performances with VR chatrooms,¹⁶ or a video image (Zoom). The most interesting aspect is the question of how these performances deal with the transgressive physicality and which effects this handling evokes concerning the telepresence mentality.

Kit Galloway and Sherrie Rabinowitz’s *Image as a Place* (1970s)

Figure 1: Kit Galloway, Sherrie Rabinowitz, Hole in Space (1980), real-time videoconference connection between public spaces in New York and Los Angeles



Source: <https://anthology.rhizome.org/mobile-image> (accessed August 11, 2022).

A historical reconstruction helps to answer these questions, detecting and understanding what is going on concerning the mentality of the real virtual. To do so, the accepted historical narrative must be modified. That narrative says that *Hole in*

13 The notion “mentality” is used to mark this complex situation and constitution.

14 Stefan Rieger calls this constitution “*Grenzverschieblichkeit*” (Rieger 2019, 85ff.).

15 A convincing example of this constitution is the performer CodeMiko (see Kooboto 2020).

16 The platforms used in theater and performance include Mozilla Hubs, VRChat, and Gather.town (see Diesselhorst 2021).

Space (1980),¹⁷ an installation by artists Kit Galloway and Sherrie Rabinowitz, is the starting point of telepresence experience in so-called real time. The artists launched the piece in 1980, connecting people from New York and Los Angeles by live video image transferred via satellite.

Reactions to the event were very touching, and still are today, because it dealt with a real virtual presence. The affective drive becomes visible, as persons from across the country flirted, made appointments, and introduced newborns to extended family.

But, more informative for the constitution of telepresence's reality and its cultural and political effects is the *Satellite Arts Project* (1975–1977),¹⁸ an installation created and developed by the same artists in the 1970s. It features dancers separated by up to 5,000 kilometers moving together in so-called real time via transferred video images. The essential and important aspect of the installation is the struggle with time delay and latency in the transmission of video images (see also Paulsen 2013; Paulsen 2017), which ask for a specific bodily and cognitive-sensorial adaptation in order to synchronize the interaction with other people (see also Distelmeyer 2021). For example, Kit Galloway counted beats, beckoning with his hand in order to adapt to the delay and synchronize the time, to give the impression of waving reciprocally with another person (see also Paulsen 2013, 102). Another groundbreaking invention, which helped to realize “the ‘simultaneous now’ of satellite telecommunication” (Paulsen 2013, 108), was the substitution of a split screen with a screen that fed the two images into one by video-keying. Whereas the split screen separates the screen into two halves and makes invisible those parts of a body on the screen where a person goes beyond the range of visibility of a camera (Paulsen 2013, 104–105), the “mixed image” (Paulsen 2013, 103) enabled the dancers to share one (!) common space. They could dance together, instead of, for example, pantomiming touching each other by trying to overcome the frontier of the screen. Artist and writer Steven Durland describes the effect of performing telepresence and distant, virtual socializing as the “image becoming a place” (Durland 1987), requiring, as Kris Paulsen says, “that the dancers negotiate all of their embodied senses through their collective image on the screen” (Paulsen 2017, 98).

17 Information on the art project can be found on the following websites: <http://www.ecafe.com/museum/history/ksoverview2.html> (accessed May 19, 2022); <https://anthology.rhizome.org/mobile-image> (accessed May 19, 2022). Video excerpts from *Hole in Space* can be viewed on: <https://www.youtube.com/watch?v=SylJJr6Ldg8> (accessed May 19, 2022); <https://www.youtube.com/watch?v=QSMVtE1QjaU> (accessed May 19, 2022).

18 For information on *Satellite Arts Project*, see <https://anthology.rhizome.org/mobile-image> (accessed May 19, 2022).

Figure 2: Kit Galloway, Sherrie Rabinowitz, *Satellite Arts Project* (1977), telecollaborative dance, relating via two-way satellite over long distance



Source: <https://anthology.rhizome.org/mobile-image> (accessed August 11, 2022).

The thesis in this paper is that the telecommunicative and telepresent performance propel the realization of a real virtual mentality, which is constituted by the fact that its virtuality, that is to say, its technological status, becomes psycho-physically real through embodiment. Or, to put it differently: the aim is a “real” liveness within the virtual. This is achieved by the activation and the training of, as I call it, auto-s(t)imulation (Leeker 1995), as seen in Kit Galloway’s methods of adaptation to time delay and latency in the transmission of video images. It deals with simulating the missing parts in physicality (smell, touch, and real time, for example) during a techno-human encounter by stimulating, or more specifically, activating your own body and imagination. In this context, the importance of the invention of a third communal space, which overcomes the split screen, becomes understandable. It aims to enable training to deal with the gaps and delays of telecommunication, by flowing into a space of immersion, which smoothes differences and helps to compensate and adapt by minimizing the difficulties through the illusion of being-in. In this way, physicality is adapted to a techno-human cooperation, being able to fill gaps and overlook differences. Kris Paulsen gives a hint of the upcoming virtual mentality as real virtual when she says:

Galloway and Rabinowitz hypothesize an ethics of engagement with others in mediated environments. They imagine what it might be like to be simultaneously real and virtual, self and other, subject and object, seer and seen, here and there, now and then. (Paulsen 2013, 99)

Paul Sermon’s *Third Space* (1990s)

But, finally auto-s(t)imulation is about more than just a temporal state, and capability that is activated in cases of an event during a telepresent transmission. On

the contrary, the psycho-physical adaptation to telepresence's physicality becomes a permanent configuration, and constitution of mentality, which functions beyond events in telepresence as well. That is, the training generates a physicality that is constituted in the real virtual and *habitualizes* it as new, ordinary mentality, thereby adapting human agents perfectly to the technological conditions of digital cultures.

This becomes visible in performative installations by Paul Sermon, who has worked exclusively with telecommunicative and telepresent performances since the 1990s with the help of chroma-keying.¹⁹ He continued the setting invented by Kit Galloway and Sherrie Rabinowitz and named the mixed space beyond split-screen *third space*. The crucial point of Sermon's performative installations is the turning to left and right in video images (Leeker 2019).²⁰ If you want to touch a person that is on your right side in physical space, you have to move to the left to perform the action in the video image (Leeker 2002; Leeker 2019, 10). I personally experienced the effect of this training when this conversion was automatized over two weeks during an intense workshop with Paul Sermon and dancers at the *Choerografisches Zentrum* in Essen in the summer of 2001 (Leeker 2002, 244–305). My son visited me during this workshop and sat beside me on my right. When I decided to give him a hug, I turned to the left side, unconsciously using the trained mode, anticipating the conversion for the virtual presence. It was a vivid example of the power of adaptation within the regime of relationalization for techno-human cooperativity. It produces an all-over anticipation of a technological situation as a kind of joyful and voluntary obedience.

The background for this normalization of the virtual body-shaping is Paul Sermon's mapping the virtual third space (Leeker 2002), originally on a video screen, into physical space. Sermon's *Telematic Dreaming* (1992)²¹ is a good example. The installation featured a bed, set up in each place, onto which were projected images of remotely located people who were then invited to touch each other.

The interesting point is that Paul Sermon made the physical surroundings themselves a screen, so that both the physical surroundings and the virtual became transgressive, hybrid zones in between the real and the virtual. The virtual is real, and the real virtual. In these environments, it makes sense that the virtually reconfigured body takes over.

19 For an overview over Paul Sermon's artworks, see his website <http://www.paulsermon.org/> (accessed May 19, 2022).

20 This turn can be adapted easily in today's video conferencing via Zoom using the "Mirror My Video" function in the video settings.

21 <http://www.paulsermon.org/dream/> (accessed May 19, 2022).

Figure 3: *Telematic Dreaming*, Paul Sermon, 1992



Source: <http://www.paulsermon.org/dream/>.

Performing VR Chatrooms (2020s): VR for Telepresence via Telecommunication

Today’s telepresent performances follow from this prehistory and also integrate the second strand of telepresence: desktop VR using, for example, the platform VRChat with its VR chatrooms. These performances are given without any knowledge of the prehistory or thoughts about it, taking the training in auto-s(t)imulation for granted, which could be seen as a clue to its hyper-normalization. This may be the condition for the easy shift in performances with encounters in VRChat rooms via avatars during the pandemic, which are far more abstract and technically demanding to create and use than performing in and with video conferencing. Vivid examples are the VR environments created by Roman Senkl and Nils Corte²² and virtual theater collective *CyberRäuber*,²³ which spectators either explore by navigating through the environments and encountering snippets of theater or by becoming part of a performance seen through VR glasses, which presents stages and actors that evolve through the movements of spectators wearing the glasses.

One task facing artists according to VR producer and programmer Nils Corte is the development of sophisticated concepts that might help users experiencing virtual spaces for the first time (Diesselhorst 2021). It seems that under the pressures of the pandemic, performances expanded and strengthened the becoming real of

22 For an overview, see <http://nils-corte.de/> (accessed May 19, 2022).

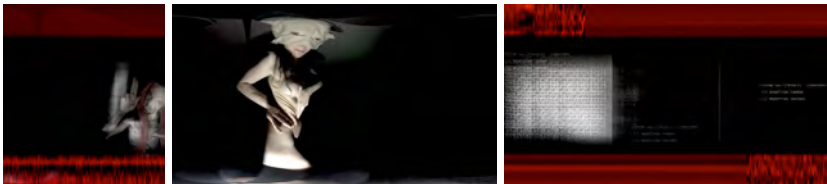
23 <http://wp11159761.server-he.de/vtheater/de/home/> (accessed May 19, 2022).

virtuality (real virtual) by enabling a progression to the next step. This step refers to enlarging the ability to deal with the two transgressive bodies (the physical and the virtual) when avatars have become the vehicle for encounters. Furthermore, within this setting, the impression and effects of a vivid telepresence are generated differently than in video images of the persons, as done by Galloway and Rabinowitz, or Paul Sermon. Whereas video conferencing is engaged by touch and proprioceptive sensations, the liveness (*Lebendigkeit* in German) in VRChat rooms is mainly generated via chatting—human agents can speak with each other via the avatars—as well as with the help of written chat functions. This chatting attests that the persons are here and there at the same time, sharing a common event. This sensation and impression of telepresence as ultimately a veritable digital liveness is enabled and supported by the fact that the visitors have to learn to navigate through VR via keyboard or VR glasses. In either case, they have to engage their physical bodies in order to deal with the technological challenges, adding physicality to the virtual, just as they were once trained via auto-s(t)imulation. So, the digital liveness of telepresence performances in desktop VR is one of a physicality of imagination.

It has to be mentioned that these performances in the virtual rooms of VRChat are surrounded by others, using them as journeys through virtual landscapes and encounters for speculating about other worlds, asking, for example, what a more diverse society might look like and how societies could be organized more equally. Instead of focusing on training for transformation into a transgressive body or auto-s(t)imulation, today's real virtual is also about changing the world. Perhaps it is all about magic moments, as if the real virtual could make speculation become reality.

Fronte Vacuo's Ethics of Digital Liveness (2021): Let's Become Hesitants

Figures 4–6: Humane Methods: 4.01 The Ether Sessions (2021)



Source: Stills from performance video. A work in progress by Fronte Vacuo, directed by Andrea Familiarì, performed live and online at *TOOLS Festival*, Theater Rampe, Stuttgart.

Currently, more advanced and sophisticated formats for telepresence and real virtual are being developed in theater and performance—specifically, one very particular interactive offer. Spectators are asked, for example, during the streaming of

live performances, to control a 360-degree camera from their own device to create individual views and edits. Spectators become directors of their reception of the performance, playing around with dis/appearances of all participants. With this format, performing telepresence also shifts to a further exploration of digital liveness. Whereas performing telepresence is always partially linked to its technological constitution, namely transmission, and its operative mode, namely remote communication and interaction, digital liveness is an attempt to create a digital version of the emphatic presence in live performances and its idealistic enhancement as epiphanic appearance (Fischer-Lichte 2008). The background of this shift may be on the one hand the normalization and becoming commonplace of telepresence, giving it more scope for creative shapes. On the other hand, the amalgamation of telepresence with desktop VR, as just described, could charge it with metaphysical potentials. This charging was demonstrated in an experiment undertaken by the *Fronte Vacuo* collective (Marco Donnarumma, Andrea Familiarì, and Margherita Peverè) in 2021, using a 360-degree camera to live stream during the *Tools-Festival* at Theater Rampe in Stuttgart (Germany).²⁴

Marco Donnarumma and Margherita Peverè performed a piece called *Humane Methods: 4.01 The Ether Sessions* (2021),²⁵ which was conceived by Andrea Familiarì, who also curated the video directing and the live AI algorithm. Spectators were invited to control a 3D camera while following the performance, which allowed them (the spectators) to scale the space between their viewpoint and the virtual presence of the performers, bringing them into view. That is, they were able to "go" nearer to performers or stay at a distance. At first glance, this intriguing version gave control and power of agency to the participative spectators. But at the same time, this luxury offer became itself the intrigue as the performance, even in its mediatic state of being too near, forced the spectators to decide on their position in relation to the almost naked performers, who were exposed in a highly vulnerable corporality and non-privacy. Participant-spectators oscillate between shame, shyness, and, inevitably, voyeurism. Viewers were challenged with the question of whether they would have liked or been able to assist a live performance of this experiment. This "gaming around"²⁶ with distances, being a (self-)reflection on telepresence, propelled it into the sphere of digital liveness and its specific qualities, such as constantly oscillating between distance and nearness. Could it be possible that digital liveness allows more nearness and asks for a humbler responsibility than analog liveness? Could control and power

24 <https://theaterrampe.de/stuecke/humane-methods-4-01-the-ether-sessions/>; <https://www.spectyou.com/de/video/humane-methods-4-01-the-ether-sessions-tools-festival> (accessed May 19, 2022).

25 <https://theaterrampe.de/stuecke/humane-methods-4-01-the-ether-sessions/> (accessed May 19, 2022).

26 See footnote 1.

of agency in the virtual be extremely painful because a liveness, presence, and nearness are provided that you would not dare ask for, or which you could not endure in analog-physical performative encounters? Does gaining control mean also losing control? The real virtual turned into an intriguing spectacle of being- and becoming-too-near and made the regime of continuous adaptation and anticipation a question of individual responsibility. The technological became a question of ethics. It is as if theater and performance transformed into a training center for forms and modes of social reliability and credibility of digital liveness and the real virtual. They provide a lonely sociality that comes from a mode of hesitation, combining it with the sensing of metaphysics in telepresent encounters.

Training for Techno-Human Cooperation and Digital Liveness

This historical and systematic overview on telepresence shows that virtuality in video conferencing and VR environments was not primarily about the loss of the real in favor of the virtual (Baudrillard 2004), or about inventing other, allegedly “better” worlds by speculating in VR. On the contrary, it deals with the adaptation of human agents to technological conditions by auto-s(t)imulation, and the doubled transgressive body. Through training, both the body and mentality are transformed into appearances of a technological in-betweenness—that is, they are shaped by a techno-human constitution, existing as a space of relations between humans and technology. As such, body and mentality are prepared for permanent adaptation and anticipation, sensing and guessing others’ behavior, whether they are human or nonhuman agents. This becoming real of the virtual is a basic and indispensable condition of digital cultures engaged in techno-human cooperation, as shown within the normality of distant socializing during the pandemic. It may even be that the pandemic organization of social life in distant socializing was possible only because humans had been trained in this mode of existence by performing telepresence beforehand.

A second point becomes obvious. It concerns the general constitution of liveness, which may be evident under the impression of digital existence but is nevertheless worthy and important to mention here explicitly, also referring to pre-digital conditions: neither in the prehistory of digital cultures nor in the contemporary situation was there ever an analog liveness in the sense of a physical copresence in immediacy, or a “real real.” We have never been live or real but always live in a mediated way (Hammelburg 2020; Leeker 2019) and in a virtual condition (see also Kaspro-

icz 2020).²⁷ Telepresence and liveness, understood as feeling humans’ socio-physical existence, is always mediated.

Meanwhile, in 2022, humans are here and there, now and then (Paulsen 2017; Hammelburg 2020) quite “naturally,” as in today’s digital cultures forms of so-called analog liveness are intermingled with the digital ones (see also Hammelburg 2020). This does not refer to a cultural-pessimistic view, mourning the loss of a paradisiac, allegedly unmediated liveness. It is, on the contrary, an insight into an insoluble technological condition of human existence and the acknowledgement of a diversification of multiple forms of presences, which are each in a mediated state.

2. Sociality and Epistemology of the Real Virtual: Hyper-Excited Egos and Knowledge on the Flight

The mentality of the real virtual is accompanied by an order of sociality and an order of epistemology in performing telepresence, which is explored in this section in a more essay-like manner without a deeper historical reconstruction, as noted in the introduction.²⁸ The telepresent performance *Möwe.live* (2021) by the *punktlive* collective is presented as an example of digital sociality, formed by asocial pseudo-subjects finding their self-understanding in social media. These subjects fall into deep depression and, at the same time, once they detect that this subjectivation is an illusion and betrayal, hide their existence as providers of data. “Let’s play” offers a telepresent format that is informative for an understanding of the epistemology of performing telepresence and the resulting real virtual. Namely, within “gaming around” with digital applications on the internet, binding references to collectively shared frames and values of research and knowledge are dissolved. Finally, both performances support the techno-human cooperation in digital cultures congenially. On the one hand, the status of pseudo-subjects helps to reduce resistance against the binding in techno-human entanglement. The “let’s play” performances smooth the effort and stress of permanent and unforeseeable techno-human adaptation by designing non-understanding and non-knowledge as fun and pure joy of contingency.

27 In his text, Dawid Kasproicz unpacks the virtuality of labor in techno-human collaboration, which is constituted as such because it is generated in the simulation of machine-communication and interaction, being mapped onto bodies afterward.

28 See footnote 8.

Sociality of the Real Virtual: Ego-Excitement in *punktlive's* Performing Social Media

The *Möwe.live*²⁹ performance by *punktlive* collective,³⁰ which premiered at Theater Stuttgart in 2021, is a telling example for today's nettheater, contributing its own form of telepresence to the constitution of digital cultures in our current, digitally enhanced living conditions. The performance combines video conferencing—using Zoom, a contemporary technology enabling telepresence by transferring video images of distant persons in so-called real time that became widespread during the pandemic—with social media. This coupling extends the reach of telepresence mentality in today's networked infrastructures, installing the narrative of existence as permanent and normalized distant socializing. This broadening of the real virtual transforms the concept of telepresence that held sway from the 1970s to the 1990s. The latter, which could be called now for better differentiation from the umbrella term “telepresence,” “third-space-telepresence,” linked more to occasional events of transmission, is modified to an everyday, highly networked telepresent existence. With this expansion, telepresence becomes a digital liveness, which is equal to analog copresence.

The constitution of sociality under this condition is explored in the following section by looking at the methods and relevance of the ubiquitous expansion, the upcoming type of subject, and its modes of being together with others.

The plot of *Möwe.live*, directed by Cosmea Spelleken, invents the circumstances of an existence in digital liveness, tending to an almost complete transformation of analog sociality into digital systems. The description says:

A summer filled with carefree days at the lake: anything is still possible, dreaming of the future. A young Kostja, Nina, Masha and Kostja's mother, Arkadina, with her new lover, Trigorin, spent a summer together in a holiday home in France. Now just memories, the experiences of that summer were recorded only in Trigorin's video diary and numerous photos. The characters, connected via social media, follow what has become of the others. The pictures show shiny, happy lives, but they are deceptive. For all those involved must realize that their expectations of life are not necessarily compatible with reality.³¹ (trans. ML)

29 For a first impression, see the trailer <https://www.youtube.com/watch?v=OWzNgmYr-4E> (accessed May 19, 2022).

30 <https://punktlive.de/> (accessed May 19, 2022).

31 “Ein Sommer voller unbeschwerter Tage am See: alle Wege stehen offen und man träumt sich eine Zukunft. Der junge Kostja, Nina, Mascha und Kostjas Mutter Arkadina mit ihrem neuen Liebhaber Trigorin haben den Sommer gemeinsam im Ferienhaus in Frankreich verbracht. Die Erlebnisse von damals sind nunmehr Erinnerungen. Festgehalten nur in Aufnahmen aus Trigorins Video Tagebuch und zahlreichen Fotos. Verbunden über soziale Medien verfolgen die Figuren, was aus den anderen geworden ist. Glänzende, glückliche Lebenswege zeigen

The structure and dramaturgy of the performance configure the conditions for installing a ubiquitous digital liveness by, on one hand, expanding the scope of places and spaces for distant socializing, spreading it over interconnected platforms and devices and on the other hand, transforming those platforms and devices into media for personal use by individuals. Within this process, telepresence becomes ubiquitous and refers no longer only to communication but also to identification, as the telepresent images and figures are taken as a part of oneself, building an indispensable basis for a permanent distant socializing.

Telepresence’s ubiquity is installed by the setup of the piece in a combination of Zoom calls in which characters meet; the showing of pre-produced films of past physical social being-together; and the activities of each character on their laptops, such as writing emails that are never sent, scrolling around in folders of photos, and checking social media such as Twitter, Instagram, and Facebook to meet other characters and make exchanges with them (see also: Fischer 2021).

Furthermore, in the performance, the laptops become spaces of persons, as they are staged as media of intimacy and personality in which a person’s life is stored and activated (Fischer 2021). “Show me your desktop and I will tell you who you are,” writes journalist Jan Fischer (2021, trans. ML). A specific contribution of the performance is to open these spaces to the public, showing a private desktop within distant socializing. This is realized by giving each character an account on Instagram,³² feeding it with input from the performers’ laptops during the performance and using these digital presences for communication with other characters of the piece. The audience can also communicate with the theatrical figures on Instagram in real time during each live performance. The crucial point is that these social media interactions are shown within the performance on the laptops of the characters. So, the performance not only “generates” a device as part of a person but also makes it an interface for distant socializing by distributing the “me-in-a-device” over social media. With this techno-dramaturgy, telepresence is occupying more and more of the internet. Thus, this performance works on the enlargement of the real virtual to the techno-sphere of a whole networked world and turns telepresence into a life in a normalized digital liveness: distant socializing is now, as the performance put it, everywhere, at any time.

die Bilder, doch sie trügen. Denn alle Beteiligten müssen feststellen, dass ihre Erwartungen ans Leben nicht unbedingt mit der Realität vereinbar sind.” (<https://www.staatstheater-nuernberg.de/spielplan-21-22/moewe-live/11-12-2021/1930>) (accessed May 19, 2022).

32 For the Instagram accounts, see <https://www.staatstheater-nuernberg.de/spielplan-21-22/moewe-live/11-12-2021/1930> (accessed May 19, 2022): @kostja.treplejow, @nina_sarajetschnaja, @mascha_schamrajew77, @boris.a.trigorin, @irina.arkadina_official, @flying.katja.

This shift confronts the specific theatrical live presence that had previously been dependent on the copresence of actors and spectators at the same time, in the same space (Fischer-Lichte 2008) as an indissoluble condition of human sociality. In the real virtual, on the contrary, as in all-over digital liveness, sociality can be seen as a colorful and easy remix of different kinds of technical *components*. In the same movement, the analog social becomes a mediated past that is perfectly integrated into this potpourri of ever newly remixed realities once it is saved as a video file on a laptop or in social media. The result is that digital liveness becomes socially accepted and habitualized as fundamental for human sociality, as it had been for performative copresence.

It is within this extension and becoming commonplace of the real virtual that the process of subjectivation is launched, figuring as the basis of the constitution of sociality by performing telepresence as digital liveness. The interesting point is that within the performance there is an attempt to revoke the de-subjectivation (Rouvroy 2013; Rouvroy 2020) of human agents in social media and economic platforms, using them as a condition for the inauguration of a subject. This installs a twofold movement that simultaneously takes over social media as a place of subjects and brings them under the regime of technical operations.

The subjectivation is managed by the modes of actor's play in *Möwe.live*. Suddenly a very traditional "speaking theater" invades the virtual space of social media, grounded in a Stanislavski-like actor's play, generating coherent figures with a complex inner psychic structure (Stanislavski 2007). This aesthetic is almost unbearable, as it is highly subjective in the sense that each character in the play is just turning around itself, egomaniacally. The question is, what is the performance working toward with this ego excitement, running into a hyper-subjectivity. Possible answers come from an artist talk after the premiere in December.³³ It was noted that the egomaniacal actor's play corresponds not only with the constitution of the characters in Chekhov's *The Seagull* but also to social media's culture of the self. On Instagram, according to the artists, people create and excessively manifest their egos through images and short films.

But as seen in the description of the play above, these subjects are isolated and menaced by destruction. The characters cannot live up to the image they present of themselves in social media. On the contrary, they fail to, for example, become successful actors. As the performance uses clichés, it turns the characters of the play into quotations, patterns, empty shells that are uninhabited and uninhabitable. The consequences unfold within the piece, specifically within Kostja's development. He commits suicide at the end because he has understood that even his success with a piece of digital theater doesn't make him happy or complete.

33 There is unfortunately no documentation of the artist talk, only notes made by the author while listening to the discussion.

This ambivalence signals that the technological constitution is breaking through, showing that the interpretation of humans as they appear in social media as persons or subjects is highly problematic and naïve, because the “selves” generated are just an operative personalization of human actions from and for data mining with no subject. As media scholar Antoinette Rouvroy argues,

Algorithmic governmentality does not produce any kind of subject. It affects, without addressing them, people in all situations of possible criminality, fraud, deception, consumption, ... which are situations where they are not requested to “produce” anything, and certainly not subjectivation. Rather, algorithmic governmentality bypasses consciousness and reflexivity, and operates on the mode of alerts and reflexes. (Rouvroy 2013, 153)

Against this background, the only decision Kostja can make in this piece in his function as a digital place marker is to end his life. It becomes obvious that the performances are serious and dangerous games. Their performing the real virtual is creating the illusion of a self, hiding the technological condition, sparking, on the contrary, the amount of given data. The consequence, which corresponds to an alleged kind of way out, is finally a desire for death.

The thesis is that the *Möwe.live* performance gets its specific effect and relevance from foisting the status of subjectivity—as being related to a subject—and the power of subjectivation onto data mining on the internet, which has, as previously stated, no interest in persons, selves, or subjects. On the contrary, the subjects are generated during their selfish staging, whereas the technical systems are working with purely operative, algorithmic correlation and distribution. In this context, the performance can only generate the illusion of an individual use, and of a consistent subject, concealing the technological a-subjectivity. In this sense, *Möwe.live* is not only about a misinterpretation of the technological conditions of digital cultures but also about a betrayal of their status, hiding them behind an allegedly successful process of *individualization*. Beyond the pseudo-subjectivity, the persons are purely and operatively data-collecting and data-connecting points that desire to be continuously connected and networked.

So, the performers adapt, without recognizing it, what Antoinette Rouvroy (2020) called “algorithmic governmentality.”³⁴ Capturing and redefining social media as environments for an existence in ubiquitous distant socializing also means making video conferencing part of the algorithmic operations, such as collecting and connecting data on the internet. So *Möwe.live* makes video conferencing a

34 She writes: “Algorithmic governmentality is the idea of a government of the social world that is based on the algorithmic processing of big data sets rather than on politics, law, and social norms. ... With big data, the idea is to generate hypotheses and classification criteria from the data” (Rouvroy 2013, np).

question of being performed by algorithms while performing them. Furthermore, by combining Zoom and social media, it became clear in the performance that in digital liveness the technologically generated self is a fragile and illusionary construction; a fact that was not always obvious in endless Zoom meetings, black-boxing the technological conditions of image processing. Thus, the opportunity that *Möwe.live* offers is to make clear that data, not persons, are performing in distant socializing.

The sociality of the ubiquitous real virtual and its digital liveness popping up under these conditions is of a specific kind: Our society, represented by the performers, is no longer oriented toward a democratic community of subjects but toward an assemblage of fragments and quotes. It is about lost persons who are identifying themselves with empty data, filling them with sense, needing each other only in order to be perceived and acknowledged. Sociality becomes a ritual of producing correlating quotes and patterns and connecting to technological conditions, which primarily helps the regime of relationalization, elaborating the adaptivity for techno-human cooperativity.

It is certain that subjectivation in today's digital cultures is linked to the exchange with data-mining and the becoming-social of its effects (e.g. profiles, strategies to make people give data, adaptation to connectivity within techno-human cooperations). This subjectivity is distributed over technological devices. A "gaming around" within this constellation is to be undertaken, though it should be done without the illusion of being a subject within social media but instead by recognizing that your participation is part of a performance of and with data flow.

Epistemology of the Real Virtual: Let's-Play-Knowledge

In March 2021, the German *Dramaturgische Gesellschaft* annual conference was on "Digitality and Performing Arts." It was set up as a "let's play"³⁵ on Twitch, replacing the traditional format of talks, inputs, and discussions as media of knowledge generation and exchange.³⁶ "let's play" is about playing computer games and making comments while doing so.³⁷ During the conference, artists, cultural studies scholars, and programmers formed teams. These teams were asked to reflect on gaming itself as a cultural technique and to discuss the aspects and issues of theater and digitality during their sessions.

35 For the history and aesthetics of the "let's play" format, see Ackermann 2017.

36 The concept for this event was elaborated by artists, and pedagogues Sarah Fartuun Heinze, Christiane Schwinge, and Friedrich Kirschner. It consisted of twelve "let's play" sessions, distributed over three days. For further details, see <http://konferenz-2021.dramaturgische-gesellschaft.de/> (accessed May 19, 2022).

37 See, for example, Cronkh, a well-known figure in "let's play" (Gronkh-Wiki 2018).

With this performing telepresence of “let’s play,” the categories of video conferencing and of VR systems/desktop VR and their history, which were presented as two strands earlier in this paper, are finally converging.³⁸ The reason is that the twitch.tv platform usually transmits live performing video games (adventure games, or role plays, see Pepe 2020) as an application of desktop VR. With this amalgamation, the “let’s play” of the events at *Dramaturgische Gesellschaft* converted gaming into a fundamental element of the epistemology of digital liveness. The events became a serious game for knowledge and knowledge production of the real virtual.

Figure 7: *Let’s play, Judith Ackermann and Christiane Schwinge*



Judith Ackermann und Christiane Schwinge spielen den Sims Character Editor

Source: Dramaturgische Gesellschaft Annual Conference: DiG IT ALL/LET’S PLAY, March 26–28, 2021, concept and moderation: Sarah Fartuun Heinze (theater pedagogue, culture educator), Christiane Schwinge (Initiative Creative Gaming, PLAY Festival Hamburg) and Friedrich Kirschner (Spiel & Objekt master’s degree program), <https://dramaturgische-gesellschaft.de/blog/lets-play-judith-ackermann/>, <http://konferenz-2021.dramaturgische-gesellschaft.de/2021/02/22/lets-play-2/?block=2>, <https://dramaturgische-gesellschaft.de/blog/dig-it-all-gekommenn-um-zu-bleiben/> (accessed August 11, 2022).

A short description should give an impression of the performance. In this setting and framework of rules, an impressive explosion of sentences, words, exclamations, notions, and gestures was activated, which involved shifting from one glimpse of ideas and fragments of thought to another, with no connection or logical reference

38 See also footnote 8.

to each other. Even the subjects of understanding had been dissolved as the individuals of the gaming teams were busier creating avatars as actors in the games being played, also assisted by the wishes of the spectators, than following a coherent line of thought.³⁹ It seems as if within this process, the avatars, as a technological part of the doubled transgressive body in the real virtual, were getting ready to be an active part of thinking and understanding.

A deeper analysis and reflection of these sessions, concerning the games, or the performance of performing them, is beyond the scope of this paper.⁴⁰ Therefore, the focus will be on some initial ideas on the epistemology of this setting, coming out of, and at the same time realizing a real virtual. How could playing around fit in with the production of knowledge and cognition under the conditions of the telepresence and digital liveness within distant socializing?

An answer lies in the hyper-performativity of the “let’s play” performance. The players had to create the whole performing of the gaming from scratch, without being prepared for what would come. Generating knowledge within digital liveness in virtual environments became an effect of a complex being-in-a-situation in which the agents had no distance or time to think, reflect, or prepare. Doing, reflecting, acting, deciding, performing, and affection-effects happened all at once. In that constellation, knowledge mutated into dealing with and confronting the joy of non-knowledge. Furthermore, within the flow of performing gaming, subjectivity became obsolete because it was not subjects that acted and decided but an assemblage of factors—for example, the gamers, the software of the games, the spectator-participants offering comments, votes, and questions, and the technology of this gaming. So, the “let’s play” builds on what was found within the discussion of digital subjectivation: the subjects became connecting points for data flow and data analysis. While in *Möwe.live* this constitution resulted in death, in performing the gaming, it became pure fun and enjoyment.

With the gaming-a-game, contingency becomes the ground of epistemology, constituted in pure processuality and flow, causing uncertainty, unpredictability, and uncontrollability. With non-knowledge and contingency, the real virtual becomes a celebration of the regime of continuous adaptation and anticipation. Or, in other words, “let’s play” trains adaptation and anticipation as a condition of knowing, understanding, and communication, instead of looking for facts, proofs, experimentation in spelled out assumptions, and lines of thought. It is, on the contrary, about a

39 For a good example, see the recordings of Judith Ackermann’s and Christiane Schwinge’s gaming of Sims Character Editor at the Dramaturgische Gesellschaft Conference, 2021: <https://dr.amaturgische-gesellschaft.de/blog/lets-play-judith-ackermann/> (accessed May 19, 2022).

40 For deeper insights and analysis, see a blog (Vogelsang 2021a) and comments on Twitter (2021b) by Arne Vogelsang, who was a live commenter for the event.

consistently beginning, transforming, flowing, running, scraping, and being overwhelmed and overburdened. The focus is on a performance of knowledge, not on gaining knowledge. The virtual real, generated in telepresence and digital liveness, gets its own epistemology of “gaming around,” producing a subject in between overwhelming and moments of concentration.

Resume: Adaptation and Anticipation of Techno-Human Cooperation

To sum up: telepresent performances helped understand the mentality, sociality, and epistemology of digital cultures in which distant socializing constitutes its own reality—being equal to analog live settings and overcoming the restrictions of liveness by, for example, removing the need to be copresent in the same place at the same time. This becoming real of the virtual was enabled by performing telepresence within different formats of video conferencing (both historical formats and today’s Zoom) as well as in desktop VR, making them a real virtual. Furthermore, the examples show that distant socializing is gradually becoming more normalized and habitual, combining the corporal, the mental, the social, and knowledge production of telepresence and digital liveness.

Concerning the value of this performing telepresence for the regime of digital cultures, it could be assumed that training in the mentality, sociality, and epistemology of the real virtual builds a perfect interplay with the regime of adaptive and anticipative techno-human relationalization. For example, training in auto-s(t)imulation is established in techno-human adaptation and anticipation, preparing the generation of a real virtual body and mentality. This fundamental relationalization is supported by the invention of an illusionary subject, which is not only able to give sense to data mining but is also existentially bound into a pure digital existence. The epistemology of the real virtual is adaptation and anticipation. This becomes obvious in “let’s play” knowledge, where reacting to what is coming up in the performativity of improvisation is primary—you never know what will come; you cannot plan. The impact of this regime of relationalization becomes clear in the question, How can you critique or change something that is the condition of your existence? Why be critical toward fun and contingency? Who should be the executor of critique if there is no-body? Moreover, the regime of relationalization sells itself, as if there is for the first time a good power play.

So, a new form of critique is necessary. The required critique, which is now emerging, must be able to deal with the hyper-entangled being-involved in techno-human cooperations, constituted by a permanent tipping movement between technocratic subjection and “gaming around,” providing humans with moments of sporadic and instable agency (Leeker 2022). Performing telepresence as enabler of the real virtual is then readable as a cultural technique for a new type and

epistemology of “skilled player” (*Versierter Spieler* in German, Leeker 2022), who is simultaneously part of the game, being absorbed by it, and configuring it by performing. This concept is not a version of cultural pessimism, mourning the loss of modern ideas such as human autonomy. On the contrary, it encapsulates the irreducible entanglement of humans, technical devices, data, algorithms, companies, politicians, mass media, and the market as the promising mode of today’s digital existence: A warm welcome to distant socializing, and: Let’s play!

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