The Anatomy of Zoom Fatigue

Geert Lovink

Humankind is so resilient. For example, I have acclimated to Microsoft Teams.
—*Ian Bogost*

Word of the day is "clinomania": the excessive desire to stay in bed.
—*Susie Dent*

Poverty of hermeneutics today: Post-it Notes, Miro, tag clouds, a search bar, infinite scrolling recommendations.
—*Geert Lovink*

This is it. During the COVID-19 pandemic, the internet came into its own. For the first time ever, it experienced a sense of completion.[1] Glitches were common. Video calls lagged then froze. Laptops or routers had to be restarted. In those bright early days of the first lockdown (March–April 2020), few dared to complain. Almost overnight we saw a mass migration to Zoom. And oh, what freedom! To paraphrase Marx and Engels, it was now possible to teach class in the morning, attend a conference in the afternoon, and socialize after dinner—while never leaving the fucking screen. We hadn't yet arrived at the feeling of being trapped in a virtual prison. In fact, as we tweaked and improved our online personas, in-person meetings began to feel strange or secretive. Somehow, we became trapped in a *Videodrome* future, a scenario that suggested some very dark outcomes.

From mid-2020 onward, I began collecting evidence on the trending topic of "Zoom fatigue." Needless to say, experiences of this kind are not just limited to Zoom but extend to Microsoft Teams, Skype, Google Classrooms, GoToMeeting, Slack, and BlueJeans—to name but a few of the major players. In our pandemic era, cloud-

1 German: *Vollendung*—completion, perfection.

based video meetings became the dominant work/life environment in not only education, finance, and health care but also the cultural and public sector. Every stratum of management withdrew into new enclosures of power. The same environment was adopted by high-flying business consultants and precarious freelancers. While their lives were very different, they had one thing in common: they worked very long hours.

Zoom has multiplied work, expanded participation, and systemically devoured any time we might have once had for writing, thinking, leisure, and relations with family and friends. Excessive screen time takes a toll. Body mass index levels have increased. Affective states and mental health have taken a hammering. Spatio-motor coordination has suffered. Video vertigo is a peculiar condition that also prompts more widespread forms of disorientation. Minka Stoyanova teaches computer programming and spends 20 hours per week on Zoom: "My ability for non-work-related social-distancing encounters has gone down greatly," she confessed. While some people "schedule Zoom cocktail parties and birthday meet-ups, I dread having to log back into the interface."[2]

It is a question of strategy. Should we resist this new normal and go on strike? Should we refuse to deliver online classes, hold management meetings, or offer virtual medical consultations? This is easier said than done. Paychecks are at stake. At first, staying at home felt like a privilege. We even felt a little guilty when others had to venture out into the pathogenic world. Now, many fear that video calls are here to stay. "Companies big and small, all over the world, are transforming themselves into a business that is more digital, more remote, and more nimble,"[3] observes *Fast Company*. Expensive real estate can be sold off, expenses dramatically reduced, and discontented staff neatly isolated, preventing any communal organization.

The video dilemma is intensely personal. "If work exhausts my video call time, I intuitively cut informal video calling with allies, friends, possible collaborators," designer Silvio Lorusso observes. "This makes me sad and makes me appear rude. It's a self-preserving attitude that leads to isolation." The debate should not be about hanging out on FaceTime or Discord with friends for a game night, doing karaoke, holding a book club, or watching Netflix together. Video time is part of the advanced post-Fordist labor regime, performed by self-motivated subjects who are supposed to be doing their jobs. But then you drift off while pretending not to. Your eyes hurt, your concentration span diminishes, multitasking is a constant temptation, and that physically, psychically uncomfortable feeling hums in the back of your head … You've heard it all before.

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2 Private email exchange with Minka Stoyanova after a public call on the nettime mailing list, July 3, 2020.

3 https://www.fastcompany.com/90558734/this-one-concept-will-transform-the-future-of-work-post-covid.

In 2014, Rawiya Kameir defined internet fatigue as the state that follows internet addiction: "You scroll, you refresh, you read timelines compulsively and then you get really, really exhausted by it. It is an anxiety that comes along with feeling trapped in a whirlwind of other people's thoughts."[4] Philosopher Nigel Warburton echoed this fatigue with his Twitter post that asked, "Does anyone have a plausible theory about why Zoom, Skype, and Google Hangout meetings are so draining?"[5] He received 63 retweets, 383 likes, and a few replies. The responses closely mirrored popular diagnoses and advice now offered across the web. So what were the main drivers of this exhaustion after a Zoom meeting, this post-screen slump? Responses included the brain's attempt to compensate for the lack of full-body, nonverbal communication cues; a sense of constant self-consciousness; engagement in multiple activities with no real focus; and a consistent tugging temptation to multitask. Suggested remedies are predictable: take breaks, don't sit for too long, roll your shoulders, work your abs, hydrate regularly, and integrate plenty of "screen-free time" into the day.

Living in Video Space

Isabel Löfgren lives in Stockholm, but Zoom has become her official place of residence. Her office is now located in that sleek black rectangle in her pocket, her mobile device. "Our living rooms have become classrooms," she states. "Does it matter what is on display behind you? What does it say about you? If you have a bookshelf in the background, or your unfolded laundry in a pile on the chair behind you, it's on display and up for scrutiny. What is personal has become public." Zoom sets up shop in the private space of the home, becoming another room in the house. Which theorists or philosophers predicted this strange scenario? Gaston Bachelard certainly didn't in *The Poetics of Space*. Neither did Georges Perec in *Life: A User's Manual*, as he failed to include a screen in his fictitious apartment block.

Actually, Czech philosopher Vilém Flusser anticipated this state of affairs, predicting "the technical image as phenomenology." Technical implies something state-of-the-art, a technology that is both smooth and sophisticated. Yet as Löfgren notes, Zoom's functionality is surprisingly simplistic or even crude: "You can raise your hand and clap like a preschooler, chat like a teenager, and look at yourself in your own little square as if peering at a mirror."[6] In fact, in many cases, Zoom fails to work altogether. Lorusso chronicles a long litany of dysfunctions in his first days of use.

4 https://www.complex.com/pop-culture/2014/03/is-internet-fatigue-ruining-your-life.

5 https://twitter.com/philosophybites/status/1252148409672380424.

6 Private email exchange with Isabel Löfgren, June 26, 2020.

> I couldn't install Microsoft Teams, my camera wouldn't activate, and, worst of all, the internet connection had hiccups. The connection was neither up nor down; every other attempt it just became super slow. Let me help you imagine my video calls: all would be smooth for the first five minutes and then decay took over—frozen faces, fractured voices, reboots and refreshes, impatience and discouragement. A short sentence would take minutes to manifest. It was like being thrown back to the times of dial-up connection, but within today's means of online communication.[7]

Zoom was broken, but we used it anyway. All-too-quickly, it became the new normal. Video calling moved from a global experiment to a foregone conclusion. We adjusted to a new interpassive mode. That was it. Completion achieved.

"I am utterly zoomed out and exhausted," Henry Warwick writes from Toronto. "Between watching the nation of my birth (the United States) commit a long slow political suicide and having friends die of COVID and working like a dog while on what is de-facto nine months of bio-house arrest, I'm not in a great mood." Henry's summer was spent making video bits and preparing for the delivery of asynchronous class material, which he describes as

> not really a university education—it is a step above a YouTube playlist. Sitting in front of a Zoom window makes it difficult to forge those friendships and networks, and it's certainly a buzzkill for adventure. In addition, there is the issue of Internet Time as I have students all over the world. It's hard for them to attend a two-hour lecture when it's 2.00 a.m. where they are. It's utter madness. Making these videos was a serious time drain. I refuse to give Adobe my money, and Apple screwed Final Cut Pro so badly that I am editing my videos in DaVinci Resolve, which has the benefit of being free-ish. I have never used Resolve, so the learning curve was not insignificant.[8]

Long before the recent pandemic, philosopher Byung-Chul Han was already observing in *The Burnout Society* that we lived no longer in a disciplinary society but in one defined by performance. This performance is not spectacular or intense but a kind of mundane repetition. Spending hours in virtual conferences doesn't feel like being in a paranoid panopticon—but neither is it a celebration of the self. We are not being punished—but we also aren't feeling productive. We aren't subjected—but we can't say we're activated either. Instead, we are hovering, waiting, pretending to watch, trying to stay focused, wondering when we might squeeze in a lunch break or recharge with a caffeine hit. Much like the seemingly endless pandemic, we are being asked to endure never-ending sessions on Zoom. The Outlook Calendar is the

7 https://www.platformbk.nl/en/remote-work-demand-dail-up/.

8 Private email exchange with Henry Warwick, October 1, 2020.

new jail warden. This is not a brief sprint, where we emerge sweaty and uplifted, but a marathon that leaves us drained and depleted. What's wearing us out is the *longue durée*.

Tired subjects perform badly. Screen-time apps and MyAnalytics summaries now tell us precisely how many minutes of our lives are being wasted as we calibrate our productivity and efficiency to collaborate with colleagues. It's hard not to wonder whether the IT sector isn't about to get into bed with big pharmaceutical companies. The society of synthetic performance enhancement is now prime for a dramatic expansion. There is no hope that this simulacrum of life can ever protect us from accelerating economic and social collapse. Despite the guilt trips, we are allowed to admit that we're not achieving much.

In response, the system has turned emphatic and switched to worry mode about our mental state. Soon after the introduction of lockdown, with quarantine in place, the authorities set about investigating whether their pitiable subjects were still coping. With society on hold, it is the waiting that tires us out. A few years ago, David Wojnarowicz tracked in *Close to the Knives, A Memoir of Disintegration* how another disease took its toll on the body, noting the disintegration that resulted from his encounter with the "fatality, incurability and randomness of AIDS … so powerful and feared."[9] Now we witness our own version of disintegration, watching as our lives fray at the seams. Trapped in the waiting room, we are being asked—very kindly—to stay in survival mode, to press on despite our burnout.

Pressing on means mastering anger and numbing intense emotion. What we experienced during the shock of lockdown was *aesthetic flattening*: a highly reductionist substitute for human interaction, as Cade Diehm and Jaz Hee-jeong Choi described our online social life in that period: "a core source of angst in reflections on the hypermodern vulgarity inherent in the same software being used for everything from professional meetings to remote birthdays to funerals, or the absurdity of rushed, voyeuristic on-screen pedagogical endeavors, marred by limited support and buffer for failures."[10] According to Diehm and Choi, video calling is an unsatisfactory low-resolution audiovisual interaction. This is paired with the reduction of body and identity from three dimensions to two, facilitated by universalist design thinking for smooth-surfaced dumb terminals that cannot accommodate performative or deeply immersive interactivity and self-expression.

Zoom has become the universal client, the software suite for everything. It seems to tick off a giant list of use cases: social media, work, entertainment, food orders, gaming, watching Netflix, seeing how family and friends are doing, and livestreams to observe those in hospital. In the context of a global lockdown, it offers some level

9 See also https://blogs.ethz.ch/making-difference/2019/05/09/introduction-posthuman-bodies-judith-halberstam-and-ira-livingston/.

10 https://newdesigncongress.org/en/pub/aesthetic-flattening.

of telepresence, allowing us to steer clear of buses, trains, and airplanes. But what a sad form of teleportation. What happened to the future? We need to go back to early science fiction novels, to revisit those far-fetched dreams. Utopia and dystopia seemed to merge in 2020. All we want is to re(dis)cover the body. We demand instant vaccines. We want less tech. We long to go off-line, to travel. We want to leave the damned cage behind.

Zoom Doom

Some weeks into lockdown, the question arose as to why video conferencing was so exhausting. Zoom fatigue is "taxing the brain,"[11] people complained. Why are classes and meetings on Skype, Teams, and Google Hangout so draining? This was expressed not as some sort of interface critique but as an actual existential outcry. Popular articles on Medium name it as such. Common titles include variations of "Do You Have Zoom Fatigue or Is It Existentially Crushing to Pretend Life Is Normal as the World Burns?" and "The Problem Isn't Zoom Fatigue—It's Mourning Life as We Knew It."

It took just days for the Zoom fatigue trope to establish itself, a sure sign that internet discourse is no longer controlled by the "organized optimism" of the marketing lobby. Managerial positivism has been replaced by the arrival of instant doom. According to Google Trends, the term made the rounds back in September 2019 and reached its peak in late April 2020, when the BBC reported on it.[12] "Video chats mean we need to work harder to process non-verbal cues like facial expressions, the tone and pitch of the voice, and body language; paying more attention to these consumes a lot of energy," stated one expert. "Our minds are together when our bodies feel we're not. That dissonance, which causes people to have conflicting feelings, is exhausting. You cannot relax into the conversation naturally." Another interviewee describes how on Zoom "everybody's looking at you; you are on stage, so there comes the social pressure and feeling like you need to perform. Being performative is nerve-wracking and more stressful."[13] Maybe Han's performance prediction was correct.

"I usually stand and move around when lecturing, sometimes making large gestures," states Michael Goldhaber, "just sitting at a desk or wherever is sure to be fatiguing. Doing this in a non-fatiguing way will require fundamentally re-thinking

11 https://www.nationalgeographic.com/science/2020/04/coronavirus-zoom-fatigue-is-taxing-the-brain-here-is-why-that-happens/.

12 https://trends.google.com/trends/explore?q=zoom%20fatigue.

13 https://www.bbc.com/worklife/article/20200421-why-zoom-video-chats-are-so-exhausting.

the system of camera, mic and screen with respect to participants."[14] The sad and exhausting aspect of video conferencing can be attributed to the "in-between" status of laptops and desktop screens. They are neither mobile and intimate, like the smartphone and FaceTime, nor immersive, like Oculus Rift–type virtual reality systems. Zoom fatigue arises because it is so directly related to the "bullshit job" reality of our office existences. What is supposed to be personal turns out to be social. What is supposed to be social turns out to be formal, boring, and (most likely) unnecessary. This is only felt on those rare occasions when we experience flashes of exceptional intellectual insight and when existential vitality bursts through established technological boundaries.

As programming teacher Stoyanova noted, the ability to see oneself—even if hidden in the moment—creates a tiring reflective effect, the sensation of being surrounded by a hall of mirrors. Educators feel that they are constantly monitoring their own demeanor, while simultaneously trying to reach through the interface to their students. In a blog post, L. M. Sacasas describes the effect of paying so much attention to oneself:

> We are always to some degree internally conscious of ourselves, of course, but this is the usual "I" in the "I-Thou" relation. Here we are talking about something like an "I-Me-Thou" relation. It would be akin to having a mirror of ourselves that only we could see present whenever we talked with others in person. This, too, amounts to a persistent expenditure of social and cognitive labor as I inadvertently mind my image as well as the images of the other participants.[15]

It is like practicing a speech in front of a mirror. When speaking to yourself, you experience a persistent cognitive dissonance. In addition, there is the lack of eye contact—even if students have activated their video—which also makes live lectures more difficult to conduct. "Without the non-verbal feedback and eye-contact one is used to, these conversations feel disjointed."[16] Curiously enough, speaking into the void nevertheless kickstarts the adrenaline glands, which certainly isn't the case when rehearsing in front of a mirror. We have entered a strange mode of performance that aligns with predictive analytics and preemption. Even though the audience might just as well not be there, performing on Zoom still activates biochemical responses in the body.

And yet if Zoom is a mirror, it is a delayed and distorted one. Online video artists Annie Abrahams and Daniel Pinheiro point to the rarely discussed effects of delay.

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14 Michael Goldhaber, nettime mailing list, July 7, 2020.

15 https://theconvivialsociety.substack.com/p/a-theory-of-zoom-fatigue.

16 Private email exchange with Minka Stoyanova, July 3, 2020.

> We are never exactly in the same time-space. The space is awkward because we are confronted with faces in close up for long time spans. We first see a face framed like when we were a baby in a cradle as our parents looked down upon us. Later it became the frame of interactions with our lovers in bed. This makes it so that while video-conferencing, we are always connected to something very intimate, even in professional situations.

Abrahams and Pinheiro also observe that it is impossible to detect much detail in the image we see.

> Video conferencing is psychologically demanding because our brains need to process a self as body and as image. We lack the subtle bodily clues for the content of what someone tells. Our imagination fills the gaps and makes it necessary to process, to select what to ignore. In the meantime, we are continuously scanning the screen (there is no overview and no periphery). We are never sure we are "there," that the connection still exists, and so we check our own image all the time. We hear a compressed mono sound, all individual sounds are mixed into one soundscape.[17]

The result of all this compression and distortion is an impoverished interface, a crude simulacrum of social interaction. Isabel Löfgren responds that we should think of Zoom as a "cold medium," one that demands more participation from the audience, according to Marshall McLuhan's concept of cold and hot media: "The brain needs to fill in the gaps of perception, which makes our brains (and our computers) go on overdrive." In terms of camera angles, Löfgren adds that we are constantly looking at a badly framed medium shot of other bodies: "We have no sense of proportion in relation to other bodies … emotional closeness to the subject on the other side of the camera is eliminated with the lack of eye contact," leaving us with no "pheromonal connection." In this sense, "Zoom terminology is correct," she notes; "our experiences of others occur in 'gallery mode.'"[18]

Caught in the Grid

The Zoom regime keeps the subject locked in, on task and on track. *Keep your eyes on the camera*, our digital alter ego whispers through our earphones. According to Sacasas, video conference calls are a "physically, cognitively, and emotionally taxing experience as our minds undertake the work of making sense of things under

17 https://doi.org/10.16995/jer.67.

18 Private email exchange, October 3, 2020.

such circumstances. We might think of it as a case of ordinarily unconscious processes operating at max capacity to help us make sense of what we're experiencing."[19] We are forced to be more attentive; we cannot merely drift off. Multitasking may be tempting, but it is also very obvious. The social (and sometimes even machinic) surveillance culture takes its toll. Are we being watched? Our response requires a new and sophisticated form of invisible daydreaming, absence in a situation of permanent visual presence—impossible for students, who are not afforded their grades unless the camera stays on.

Video conferencing software keeps us at bay. Having fired up the app and inserted name, meeting number, and session password, we see ourselves appear as part of a portrait gallery of disappointing personas that constitutes the Team. Within seconds you are encapsulated by the performative self that is you. Am I moving my head, adjusting myself to a more favorable position? Does this angle flatter me? Do I look as though I'm paying attention? And this professional image is often disrupted by the distractions of "real life"—partners who walk into the room, a passing pet, needy kids, and the inevitable courier ringing the doorbell. "Thanks to my image on the screen, I'm conscious of myself not only from within but also from without," notes Sacasas. He describes the experience as a double event that the human mind experiences as if it were real.

Why do I have to be included on the screen? Don't I have the right to be invisible? I want to switch off the camera and become a ghostly half-presence. I want to be a voyeur, not an actor. I long to be frozen like an ancient marble bust, neatly standing in a row with other illustrious figures, brought to life with a click like the figures in *Night at the Museum*. But no, it's too late, I've already joined the call and appeared on stage. The software lords have decided otherwise and gifted the world with the virtue of visible participation. They demand total contribution. The set is designed to ensure that we stay focused all the time, making the fullest possible contribution, expending maximum mental energy. You hate dressing up for that video call (but you do it anyway). Bored and tired of the emotional labor, you change your background to a tropical beach, a paper-thin paradise to inject some cheer into the situation.

Writing for *Artforum*, Paula Burleigh observes that "the most pervasive of COVID imagery has little to do with the actual disease: it is the digital grid of people congregating virtually on Zoom for 'quarantini' happy hours, work meetings, and classroom instruction."[20] The grid Burleigh describes as a hallmark of minimalist design and modernist art, "conjures associations with order, functionality, and work, its structure echoed on graph paper and in office cubicles." In his two-part "History of the Design Grid,"[21] Alex Bigman describes how the system of intersecting verti-

19 https://theconvivialsociety.substack.com/p/a-theory-of-zoom-fatigue.

20 https://www.artforum.com/slant/paula-burleigh-on-the-zoom-grid-83272.

21 https://en.99designs.de/blog/tips/history-of-the-grid-part-1/.

cal and horizontal lines was invented in Renaissance painting and page layout. This led to the development of graphic design. The assumption that images are more dynamic and engaging when the focus is somewhat off-center is something video conferencing designers have yet to take on board.

The grid cuts through any rational divisions between boxed-in subjects. Individuals are unable to spill over into the space of others except when they gossip on a back channel. Let's commemorate the guilty pleasures of the Zoom bombers who, early on in lockdown, carried out swarm raids on open sessions they found on websites and social media.[22] For some, spraying management meetings with graffiti and workshops with porn was seen as annoying puerile male behavior. Others got the joke, understanding how this anarchist gesture disrupted the platform's regime of squared tiles and perfect order. As Burleigh concludes, "the grid is rife with contradictions between what it promises and what it delivers."[23] Individualized squares are the postindustrial equivalent of a Le Corbusier housing nightmare: we are sentenced to live in our very own utopian prison cells. Here one finds tragic normalcy, punctuated at moments by deep despair.

We're alive but are being slowly caught in the grid, trapped inside existential reality. Its insistence on 24/7 mindfulness can only lead to a regressive revolt, an urge to take revenge. How can we blow up the social portrait gallery, with its dreadful rectangular cutouts? Jailed inside the video grid, you zone out, drifting away from the management meeting and entering a virtual version of Velázquez's *Las Meninas* (1656). You move on to the next room, the Kazimir Malevich 1915 Suprematist exhibition. You snap back to attention only to realize the depressing reality: you're back inside your own sad version of *The Brady Bunch*'s opening credits. You're on Zoom, not roaming inside some artwork.

The body gets depleted, bored, and distracted and ultimately collapses. No more signals! Please provide less, turn the camera off. The number-one piece of popular advice on combating Zoom fatigue is simply "do it less"—as though that's even an option. There is an imperative here, and it's about productivity and efficiency, not software—in this sense, the "you don't hate" aphorism can also apply here: "you

22 https://en.wikipedia.org/wiki/Zoombombing. In a private email from September 18, 2021, Donatella Della Ratta points at the pleasure of disrupting the official reality of videocasting out of the private sphere, for instance in a 2017 BBC broadcast two small children walk in (https://www.youtube.com/watch?v=Mh4f9AYRCZY). "How far we are from that cheerful atmosphere, the first time we have an incursion of 'real life' into screen life, kids playing and screaming in the background, the guy trying to be serious and professional, the interviewer laughing, and millions of people cheering while watching this. How far that cheerful atmosphere is from the incursion of real life we have to experience on a daily basis when we work, teach, do business meetings in constant fear that the cat will jump on the keyboard or someone will ring our door bell or our little kid will start screaming from the other room."

23 https://www.artforum.com/slant/paula-burleigh-on-the-zoom-grid-83272.

don't hate Zoom, you hate capitalism."[24] Should we be designing indicators of group sentiment? In what way can we fast-forward real-time team meetings? More back channels, perhaps, and less ongoing visual presence. But wait, isn't there already enough multitasking happening? If anything, we long for intense and short virtual exchanges followed by substantial off-line periods.

The Zoomopticon

Zoom watches you. The video filter that adds a mask, a funny hat, a beard, or a lip color demonstrates that Zoom is watching you through face-tracking technologies. Søren Pold, Danish interface design researcher, observes that Zoom provides only "a slight overview and control of the sound you're receiving and transmitting." This Zoomopticon, as Pold calls it,

> is the condition in which you cannot see if somebody or something is watching you, but it might be the case that you're being watched by both people and corporate software. Zoomopticon has taken over our meetings, teaching and institutions with a surveillance capitalistic business model without users being able to define precisely how this is being done.[25]

How can we respond to this surveillance regime and its pressure to be professional? In her *Anti-Video-Chat-Manifesto*, digital art curator Michelle Kasprzak echoes the understanding of Zoom as a surveillance tool. She calls out this eavesdropping, identifying other individuals and agencies on the call: "Hello NSA, hello Five Eyes, hello China, hello hacker who lives downstairs, hello University IT Department, hello random person joining the call." In response to this regime, Kasprzak calls on us to turn off our video cameras:

> DOWN with the tyranny of the lipstick and hairbrush ever beside the computer, to adjust your looks to fit expectations of looking "professional." DOWN with the adjustment of lighting, tweaking of backgrounds, and endless futzing to look professional, normal, composed, and in a serene environment. DOWN with not knowing where to put your eyes and then recalling you need to gaze at the camera, the dead eye in your laptop lid.[26]

24 See, for instance, this 2021 study that compares to have cameras on and off during virtual meetings: "Fatigue affects same-day and next-day meeting performance" (https://doi.apa.org/fulltext/2021-77825-003.html).

25 Private email exchange with Søren Pold, October 6, 2020.

26 https://michelle.kasprzak.ca/blog/writing-lecturing/anti-video-chat-manifesto.

She calls upon us to "refuse fake living in an IKEA showroom with recently-coiffed hair, refuse to download cutesy backgrounds which take up all our CPU, and refuse to fake human presence."

Social Media as Medicine?

Zoom takes its toll on our physical and mental well-being. London-based cultural anthropologist and research consultant Iveta Hajdakova writes,

> Last week I had three nightmares, all related to remote work. In one, I was fired because of something I said when I thought I was offline. In the second, my colleagues and I were trying to get into an office through a tiny well. We were hanging on ropes and one of them became paralyzed, which I think was a dream version of a Zoom freeze. The third nightmare was about me losing track of my tasks. I woke up in panic, convinced I had forgotten to send an important email.

In the early days of lockdown, she struggled with headaches and migraines. Luckily, she writes, these have gone,

> perhaps due to a combination of factors, having a desk and a more ergonomic setup, being able to get out of the flat, limiting non-essential screen and headphone time, and adopting lots of small changes to my routine. The head and the ears are feeling much better now, but something isn't quite right, as the nightmares signal. I've started feeling disconnected and I think this is not merely a result of social isolation but of a more profound sense of disorientation.

As a result, Hajdakova is noticing a growing sense of confusion and uncertainty: "I feel like I am losing the ability to anchor our interactions in embodied human beings and shared physical environments."

Zoom is on its way to becoming a social environment, a strange remediation of office life gone by. "In the beginning, recreating the office experience over video calls worked because all of us still had the shared reference point," Hajdakova continues. "But the more we're removed from the office in space and time, the more I'm forgetting what it is that we're imitating. We're creating something new, a simulacrum of the office." And yet this simulacrum is a pale imitation, reducing a worker and her rich personality to a collection of chat handles and cutesy icons. "I don't want to be just a face and voice on Zoom calls, an icon on Google docs, a few written sentences, I want to be a person … Social media helps so I've been posting on social media a lot." Friedrich Nietzsche once noted, "When we are tired, we are attacked by ideas we conquered long ago." When Facebook is experienced like a panacea, we

know something must be deeply wrong. But why is this feeling of discontent so hard to pin down? The inert state is essentially regressive.

Proving our own existence is like running on a hamster wheel. "The more I try to be a real person, the more I'm getting trapped in the simulation of myself," Hajdakova says. "I'm communicating and sharing just to remind people I exist. No, it is to remind myself that I exist … Like McLuhan's gadget lover, like Narcissus, staring at his own image." We are not only losing a sense of reality, memory, and confidence, Iveta argues,

> but also losing a sense of understanding for other people. Just knowing that they feel X or Y but having no way of connecting with them through some kind of mutual understanding. In general, Zoom is traumatizing for me because of the way my mind works—I need physical things, shared environments etc., otherwise, I lose not only confidence but also memory and motivation.[27]

No Diagnosis, No Cure

After surviving the COVID-19 siege, we've earned the right to wear the T-shirt: "I survived Zoom." Is a different kind of Zoom possible? We have found the experience we've undergone draining, yet coming together should empower us. What's wrong with these smooth, high-resolution user interfaces accompanied by low-resolution faces due to shaky connections? It's been a delusional dream televising events and social interactions, including our private lives. Is the "live" aspect important to us, or should we rather return to pre-produced, watch-them-whenever videos? In education, this is not a marginal issue. There is a real, time-honored tension between the exciting "liveness" of streaming and the detached, flat coolness of being "online."[28] How can we possibly reverse the Zoom turn?

Already we've seen some formulaic solutions being offered. In 2021, Stanford researchers published four causes of Zoom fatigue and proposed, in tired Silicon Valley fashion, "four simple fixes."[29] The obligations of students, teachers, and office

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27 Private email exchange with the Iveta Hajdakova, September 21, 2020. See also her text on the same issue: http://thisbloodyplace.com/ill-just-never-know/.

28 See Alan Liu's definition in *The Laws of Cool*: "Cool is information designed to resist information." We could update Lui's phrase "I work here, but I'm cool" to "I hang out here, but I'm cool."

29 https://news.stanford.edu/2021/02/23/four-causes-zoom-fatigue-solutions/. The research paper can be found here: https://tmb.apaopen.org/pub/nonverbal-overload/relea. A contextualization of the present can be found in this 1980s history of the "tired eyes" by Laine Noorey: https://www.vice.com/en/article/y3dda7/how-the-personal-computer-broke-the-human-body.

workers to work online has been rephrased as "prolonged video chats." The required presence of many hours and even days is presented as a choice: "Just because you *can* use video doesn't mean you *have* to." To take the pressure off the eyes, the researcher recommends exiting full-screen mode, reducing the size of the window, minimizing face size, and using an external keyboard. In addition, users should employ the "hide self-view" button, install an external camera, give themselves audio-only breaks, and turn their bodies away from the screen. Power relations, within education and beyond, have not been taken into account. In most cases, any form of "absence" from the screen will, intuitively or not, be read as disengagement and punished accordingly. Such tips tell Microsoft and Zoom how to improve their products and ultimately deliver more work to Stanford engineers. Instead of these "improvements," it is better to use a tool like Zoomscraper that "allows you to self-sabotage your audio stream, making your presence unbearable to others."

Six months into the pandemic, online conferences on spirituality and self-awareness began to offer counter-poison to their own endless sessions. They staged three-day Zoom events, twelve hours per day. They introduced Embodiment Circles, "a peer-led, free, online space to help us stay sane, healthy and connected in these uncertain and screen-filled times. The tried and tested one-hour formula combines some form of gentle movement, easy meditation and sharing with others."[30] The organizers promote "embodied self-care for online conferences. With such an amazing array of speakers and other offerings, the conference FOMO is real. Let's learn a few self-care practices that we can apply throughout the conference, so we arrive at the other end nourished, inspired, and well-worked … rather than drained, overwhelmed, or with a vague sense of dread and insufficiency."[31] Given this context, should we be talking in terms of "harm reduction"? Online wellness is the craze of the day: our days on Zoom include breaks with live music performances, short yoga routines, or body scan sessions. It is Bernard Stiegler's *pharmakon* in a nutshell: technology that kills us will also save us.[32] According to this stance, if Zoom is the poison, online meditation is the antidote.

But our post-digital exodus needs no Zoom vaccine. Rather than medicalizing our working conditions, let's instead put forward some concrete demands. In late October 2020, students demonstrated at the Amsterdam Museumplein, demanding "physical education." We must now fight for the right to gather, debate, and learn in person. We need a strong collective commitment to reconvene "in real life"—and soon. For it is no longer self-evident that the promise to meet again will be fulfilled.

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30 https://embodimentcircle.com/embodiment-circle-online/.

31 Quoted from communication related to https://icpr2020.net/.

32 *Pharmakon*: a Greek word meaning both poison and remedy. Bernard Stiegler argues that technics was a *pharmakon*, simultaneously curative and toxic.

Italian media theorist Donatella Della Ratta further opens up the debate by politicizing the online teaching situation. In her essay "Teaching into the Void," printed in this volume with a postscript, she reports about Zoom-specific face-lifts and the product hype of ring lights, face-upgrading technologies that made us all into influencers. In search of an exit, Della Ratta formulates a counter-politics "that finds and forms itself in the aural rather than the visual, one that is most present (and most potent) in the 'awkward moments' of lags, lapses, glitches, bandwidth failures, and frozen frames." Her focus is on subtle forms of refusal, such as students' ignoring their teachers' warnings and turning off their cameras during their Zoom lessons. What if you don't want to share your bedroom, kitchen, or living room with strangers? What if you look tired and bored and you're fed up with jolly backgrounds? Della Ratta's essay ends by praising awkwardness, that mental state that "thrives upon the clumsiness of your well-rehearsed professional performance that stumbles on impact with bad bandwidth, frozen frames, a kid screaming in the background, the family dog's impromptu barking."

Are there better precedents out there, better blueprints to build from? A media-archeological approach to Zoom might return to 1990s cyber fantasies of mass live castings, such as Castanet. The system was designed by dot-com start-up Marimba, a group described at the time as "a small group of Java Shakespeares" by *WIRED* magazine.[33] The idea was to make the web act more like TV by overthrowing the browser paradigm (a goal that the app would later partially achieve). Much like Zoom, Teams, and Skype, the Castanet application had to be downloaded and installed to maximize bandwidth capacity.

Two decades later, the basic choices are still more or less the same, and the players haven't even changed that much. Microsoft, for instance, which owns Skype and Teams, is still a key competitor. Each individual webcasting technology uses its own, proprietary mix of peer-to-peer and client-server technologies. Zoom, for instance, looks smooth because it compresses and stabilizes the signal of the webinar into one stream—instead of countless peer-to-peer ones that constantly need updating. It also pushes the user into a position of "interpassivity": a passive audience mutes its audio and shuts up, much like a pupil listening to a teacher in the classroom. This is in contrast to free software peer-to-peer architectures (such as Jitsi) that go back to the free music exchange platform Kazaa. Software like Jitsi, ironically enough, is also listed as one of the inspirations of Skype, which revolves around collaborative exchanges between equal partners. So, are we watching a spectacle as an audience or working together as a team? Are we permitted to vote, intervene, freely chat?

As the "hybrid event" future gets underway, we need to keep talking and thinking through Zoom fatigue rather than succumbing to fatalism. The era of "blended learning" that aims to merge the virtual and real has arrived. In the face of these

33 https://www.wired.com/1996/11/es-marimba/.

pressures, it is even more important to get organized, demanding a ban on the use of video conferencing in work both inside and outside the institution. Access to buildings will have to be a human right. Together, we should sabotage the real-estate mode of thinking and refuse online education as a cost-saving effort. Physical spaces are not "assets" but public goods.

Of course, that doesn't mean a technophobic retreat to some imagined utopia either. As always, mind the European off-line romanticism trap. Instead, let's make virtual meetings exceptional again. This starts by making virtual conferencing an issue of debate and global dialogue. In an age where the online population has passed the 5 billion users mark, other video conferencing platforms can become tools (among many) to overcome closed borders, reach out, organize, come together, and listen to those who have been excluded. The muted, top-down architectures of Teams and Zoom are the wrong start. It's time to go back to the drawing board, this time with an entirely different twenty-first-century cosmo-technical crew.

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