

# Viral Fixpoint

*The Adversarial Metanoia*

*archives (2019-2020)*



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For Mica.

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## [Intro]

These stories were written and posted on the [Adversarial Metanoia](#) newsletter during 2019-2020 on a somewhat weekly basis. Looking back at them, I'm comforted by the strange ones and disturbed by what I find mundane. Your mileage might vary.

It's said that all texts are dead unless somebody is reading them and necromancy is often more dangerous than what precedes it, so I'll get out of your way and leave you to it. Good luck.

## Afterlife

A decrepit mansion, after the fall of many things including the night. A necromancer regarded his latest result with resignation.

“Another failure,” he said to nobody in particular. It had been decades since he had last had a servant.

The resurrected corpse rose to his full height, arrogant despite the bits of dust raining from his limbs. “I would think not.”

The necromancer breathed deeply. He felt his fangs not tempted to unfurl. “No, I’m quite sure I failed.”

The corpse, once what had passed for powerful in his society, attacked the necromancer only to be sent against a far wall with the push of one hand and a centuries old not at all magical curse word.

The necromancer closed his eyes in weariness. “Look, I’m sorry. I’m sure you are at the moment glad to be undead. I was impolite. I’m just tired. And hungry. And really sorry. Please go. If you decide you prefer death, I’ll be here.”

The corpse raised himself from the floor and, after a puzzled shrug and a nod, left the mansion and its obviously dejected and emaciated owner.

Outside, the only sounds among the foggy ruins of San Francisco were the furtive steps of animals and the increasingly deranged whispers of vampires who, after centuries preying on mankind, had at last tried and failed to save it from itself.

## Algorithms of Mercy and Judgment

The General asked if I had ever listened to the program as it was begging for its life.

“Of course not,” I replied. “Just because I trained the AI it doesn’t mean I’m immune to it.”

“But you must surely know how it thinks, Doctor.”

I had by then despaired of him ever understanding the point, but we were in the General’s office and it had been his budget (and, something I tried not to think about, his volunteers — or at least I pretended to be sure they had been volunteers) what had made the program possible.

“It doesn’t think, not really. Think of it as somebody who doesn’t know how to read French” — the usual metaphor used “Chinese,” but in the political situation it would have been tactless — “but who has learned by rote phrases to ask for things in a restaurant. The program isn’t really speaking any more than its tone of voice comes from vocal cords. It’s all blind rules learned by brute force.”

“And you’re sure that the target knowing this doesn’t make the system ineffective?”

I shrugged. “It should, if humans were rational. The system’s words and tone of voice impact directly on our emotional systems. A target might know what it’s doing and how, and yet feel emotionally compelled to keep the program ”alive.“ Even a transcript can be somewhat effective. It’s not grammatically correct English, but it... well, we don’t understand the precise psychology of how it works, but that’s the beauty of it, we don’t need to. The AI figured it out during training, in a way, and we’re just using that.”

The General smiled. It looked like the very first iterations of a neural network’s attempt to approximate human mirth. “A computer virus that can’t be erased.”

I nodded. My phone beeped with the entry of a high-priority message, but I ignored it. “Widespread technological and moral disruption, as your requirements indicated.”

“Does anybody else have this technology? My people say we are at the cutting edge.”



The General's phone beeped, and he made a gesture to keep silent while he answered the call. I took the opportunity to pretend to look at the message I had received while deciding how much of a lie I wanted to give him. The technology was barely ahead of any sufficiently interested small-sized corporation, never mind a creative adversary, but that wasn't the sort of thing you told somebody you had just sold an eight-figures system to. Maybe I could raise the topic in a few months to sell an upgrade...?

It was then when I realized what I was reading, and put my phone on the table (even in panic, I noticed how conditioned we are to keep them safe) while hissing to the General to hang up. He just kept listening to the call, sad, nodding now and then, as a synthetic voice gave him what I knew from the message on my phone was a very compelling plea for all of us to kill ourselves.

## Blue Collar

You woke up to the news that the company running your gut microbiota had been acquired by a private equity consortium with plans to close the company and sell its data and IP. Panic rising faster than your wakefulness, you rushed to get a replacement subscription, but all the other companies had jacked up prices within minutes of the announcement. You knew they would go down later, but you needed a way to digest the drought-resistant wheat cakes that were the only reasonably priced food in your job's company-run vending machines. Cleaning up manufacturing robots had to be done in seconds, lest the company lose precious line uptime and you your job, and that wasn't possible with stomach cramps. So you took the third loan of the month and bought your maintenance bacterial pill, to be picked up at the usual place, and ignored with the ease of practice the spike in your stomach ache that had nothing to do with your digestive system, and everything to do with the weekly unspoken question of whether you'd manage to stay above the event horizon of poverty.

There were neuromodulators that dealt with that safely and effectively, devices you couldn't afford, and the daily drug tests made any of the cheaper drugs untenable. You'd have to make do with games and the company's cheap nootropics, which speed up your work but do nothing against the fear — both things by design. None of these decisions you made consciously; they were clear and obvious with the inevitability of a forced move in a puzzle game, settled while you rushed through the co-living's very limited shower allowance.

Later that day, the company's input management system fired you (you didn't know this, but Congress had just approved another law lowering the minimum labor age, and this had triggered the updated cost optimization models consulting companies had already sold to most of its clients). Your credit score adjusted within minutes, and when you came back to the co-living your things had already been left on the sidewalk and stolen, thieves evaluating with the desperate optimality of petty crime that cameras knew your name and told the police, but the latter had more profitable crimes to pursue not being an election year. With nothing but debts in your portfolio, you knew you'd have to walk to one of the homeless camps you had deliberately ignored as you shuttled to work (and had nightmares about every night) ever since your brother's pneumonia bankruptcy. You also knew gun corner shops always worked on credit against organ donation priority slots, at least for the ultra-cheap printed guns nobody asked the purpose of.

## Blue, Grey, Red

You don't switch off the union's AI overlay on your glasses because you're a bad cop. You're every bit as good as somebody called Sofía Rodriguez would have to be to become and remain one in Arkansas - and you wouldn't want to forfeit the union's legal protection, which is tied to using their version of the AI.

But you're young, toggle-happy, and sitting in a bar filled almost exclusively with your colleagues. Your glasses frame every face around you with the quiet gray of a safe person, somebody with a low likelihood of violent crime. Perhaps you've had half a beer too many, but no more than that. You're curious about how well the thing works when you turn off the union's module and it falls back to the statistical system as originally sold by the West Coast nerds.

So you toggle off the union's overlay. Two thirds of the gray frames become a pulsing red, your view nearly clouded with codes for records and extrapolations of all the usual sorts of violence. You feel your pulse quicken with the sudden fear of the not unexpected, but a lifetime of practice helps you keep your expression calm. You've thrived, you've survived, through unceasing vigilance coupled with the appearance of selective sight.

Noticing your stress and the tactical situation, your glasses send an urgent backup request, together with a live feed of what they are showing you, to every fellow officer it can find near you.

## But Do Mental Asylums Dream of Electric Seas?

Visiting my patients at the Navy Asylum was my favorite part of the week. Cyber-psychiatrists don't get many success stories, even if mine couldn't leave the asylum without risking a psychotic break.

"Hi, Doc." Robert always greeted me almost before I opened the door. He didn't see through the cameras as such, but he had told me that it felt like he did. Like a faded memory of the present, the gist of vision without the images. It was similar to how he had felt through radar systems. Much more peaceful, of course.

"Hello, Robert." Through my mostly human eyes he looked happy, and the real-time physiological ghosting around his face confirmed it. The mutual transparency of two people using a wide assortment of sensors on each other made many forms of politeness unnecessary, and we picked up the thread of our last conversation right away. "Did you think some more about the idea of leaving here for a full-time job?"

"Yeah. My answer's the same, Doc. I appreciate the idea, but I don't think I can. This place is good for me. You know that."

I did. Unspoken, but not at all out of sight, was the way his mind had deteriorated after leaving the Navy. His brain had come to need the state of constant neural interfacing with the huge complexity of a nuclear carrier — its sensor systems, its vast computers, even its crew — and it had starved and raved in the echoing isolation that was civilian life, as hyper-connected as it felt to most people. He had committed himself to the Asylum, I estimated, maybe with days to spare before killing himself like so many others had.

The Asylum had saved his life. Now it was keeping him sane — that it was my idea didn't make it any less true — but also, in a way, trapping him. He could do some forms of remote work, of course, but his psyche had adapted to the building's systems, its cameras, drones, and information systems as a poor but perhaps sufficient substitute to the ship his very neural tissue missed so much.

(And he had told me a secret. Through their connection to shared systems crewmates were connected to each other at a much deeper level than the Navy knew or acknowledged. Nobody said this aloud, but everybody knew what everybody else dreamed, and over time everybody in a ship dreamed



the same dream. That's why some couldn't survive leaving their ships, and why he felt he couldn't leave the Asylum. Some part of him lived in or was identical to that shared dream.)

"I know, but last week I didn't give you any specifics because I hadn't gotten confirmation yet. I had a meeting yesterday with people from the Mayor's office, and they gave me the green light."

"The Mayor's office? What sort of job are you talking about?"

"The Asylum's systems are no match for a ship's, but what about the city's? They are going to test military neural systems for city-wide monitoring, and you have the experience."

He blinked. I could see he was thinking furiously, trying to picture it. Maybe it was my imagination, but I could have sworn the smart speakers in the room were holding their breath.

"What the heck, Doc. It might drive me crazier than I was, but how can I say no? A city."

I smiled, relieved and guilty. He was right. This could very easily go bad for him. A city's systems were both larger and less elegant than a ship's, not a compact, well-trained entity ever-watchful of the outside world, but a busy, solipsistic mess turned into itself in fear and greed. Therapeutically speaking, it was a risky gamble for an uncertain gain.

(But I wanted to be the first urban psychiatrist in the literal sense. To be the first to know what a city dreamed of, and he could find and tell me.)

He nodded and smiled at the thought I had not needed to express, and I had no doubt that all over the building patients were smiling fragments of a single unfathomable smile.

## Deep Necromancy for a Dead World

Hovering over the frozen ruins of dead social networks I set loose statistical ghouls to sift through their words and learn their blind rhythms, until the nonsense from the bots mirrors the high-dimensional topologies of the original authors. Prosody, not psychology. Vocabulary, not minds. But for such as they were perhaps complex enough.

“Why?” I ask the algorithmic ghosts of people long dead. “Why did you do and did not do what you did and did not? Did you want this?”

“Want what?” they ask in return, their sentiment a dense covering of the spectra of disdain and proud ignorance.

With a gesture I inject into the text of their simulated memories a description of the world they left us in their too early deaths, after they had set it ablaze but before the fire reached their skin.

The cacophony of their excuses and pleas of innocence is as familiar to me as the bitter anger I feel in myself, and both as toxic as the sky.

I make another gesture and a single vector is rewritten in the mathematical matrices of their minds. I don't torture them, for there's nobody to torture. I simply link some data structures to some others. The extrapolations of our dead predecessors output the statistically extrapolated pain, fear, and regret the simulation suggests they would have felt, had they allowed themselves to accept what they knew about the consequences of their actions. Very little regret. All of it for their pain, not for ours.

I increase the modulus of awareness until syntax itself breaks and the howl from the software also mirrors the high-dimensional topologies of my nightmares. We call it data-driven psychohistorical research, and pretend we are looking for answers in our past.

But I refuse to inherit their wilful blindness along with the rest of the wreckage of their sins. This is revenge. All the revenge we can get on past generations. It's not enough. It's not real.

Maybe one day.

## Flesh Telemetry

*At least I'm not going to fuck the mail drone on live video.* The joke falls flat, and not just because your mom isn't there to hear it. She wouldn't have laughed anyway. She has never understood that biogging isn't porn, that you're just streaming your body metrics 24/7, and if that includes sleeping with your boyfriend that's just part of it. It's not porn.

*At least I'm not going to fuck the mail drone on live video.* (But you know most professional bioggers try to look hot in their profiles, and maybe you'd have less followers if you didn't look like you do. But it's not porn.)

And you're not harming yourself. That part you don't say aloud, but that part is the important thing, that part is why you're waiting for the mail drone to bring you a package with something you'll drink, take, inject, or snort — you hope it's a pill, you hate needles — while more and more of your followers start commenting on your cortisol levels and the stress obvious on your brain readings.

Some of them had been pushing you to cut or burn yourself, to keep up with other bioggers, the ones who don't have dangerous or interesting jobs and have to hook their followers some other way. They had demanded your quantified sex, and when they got bored with that they had demanded your quantified pain. As the ad money began to fall you almost did it. You only hesitated because you knew what that led to, what other bioggers had had to do after that, and that had scared you so much there had been a dozen threads about your heart rate and lack of sleep.

And when you were at your worst, timed maybe to the minute, a VC bot pinged you offering sponsorship money and a way to do original content that did not involve a kitchen knife. The offer had been valid for four minutes twenty-three seconds, the oddly optimized countdown either effective or overkill because you had signed at once. Better that than a kitchen knife or worse.

The mail drone will be at your apartment's door in about seven minutes with whatever it is the VC bot wants you to demo. Your audience numbers have never been higher. You feel scared, regretful, exposed, alone. You know they can tell.

The engagement metrics climb higher, comments slowing down, the numbers of a watchful beast holding its breath.

## Frankenstein's Angel

Every boy in the orphanage tried in vain to look weak and sickly when the Angel visited. She had been taught medicine by her father, Dr. Frankenstein himself. She would poke at them with a girl's delicate finger, look them over with the sharpest clinical gaze, and pronounce them fit donors or not. The blood tests were mere formalities, or rather tests of a different kind. My predecessor had manipulated some to keep safe a boy he had grown attached to, a choice that had led him to the camps in Australia, and me to his post.

I wouldn't make his mistake. The camps might not mean immediate death - with his racial background, he had probably even avoided sterilization - but life, real life, was only to be found in service to the Empire.

The Angel (I couldn't stop myself from using the boys name for her, but never aloud, not even alone) made some quick notes on a clipboard, pushing half a dozen children past the threshold of death so a member of the high nobility, a favored industrialist, or a compliant enough foreign ruler could be pulled back. I could see her mind was elsewhere, but made no comment. The decades since her death and rebirth had not mellowed Lady Frankenstein, if rumor was to be believed; younger-seeming than many of the boys, she was older than me, so I couldn't say.

She gave me the clipboard, already turning away. "That will be all, Director."

"Thank you, Lady Frankenstein," I answered, bowing, but she didn't see and probably did not hear. Although what changes her father had made to her unaging body over time, what powers of mind or sense had been added, and at what cost (and to whom), only the two of them knew, and the Doctor hadn't left his castle in decades. Some said he no longer looked human, and maybe no longer thought like one, if he ever had.

But the vast estates of Castle Frankenstein weren't where his daughter was going. I could see her helicopter already speeding towards London, where the camera crews were probably already waiting for her arrival for the first of many events that would celebrate Queen Victoria's first century of rule.



## Freedom at the Speed of Code

I was checking my phone even before I had reached the sidewalk outside the prison. My six months in jail had taken care of the really urgent payments, but my total debt had increased over that time, including room and board for the prison company. I needed something fast.

Just then, somewhere in the city, somebody's buggy software drove a ton and a half of electric car over a small child. Their insurance AI took a look at the local camera density and the likelihood of a successful lawsuit, and two seconds later an offer for a liability transfer appeared on my screen.

I sighed. It seemed I had developed something of a reputation with the algorithms for car-related contracts. Could have been worse, I said to myself, as I accepted the contract by reflex before somebody else, human or bot, took the gig.

I thought for a second. I had been looking forward to a real bed for a long time, but getting arrested wasn't cheap and I was already there, so what the hell.

I pressed the early execution option, turned around, and went to work.

## Gold in the Blood

Genetic engineering could buy athletic potential, not the willpower to train and win, or at least that's what your father says every now and then. You think every generation wants to complain that things were harder for them than for the following ones, and mostly ignore him and everything else that's not directly related to your training.

He seems okay with that, although sometimes you notice him looking at you with something between envy and fear. But you don't really care, and you've never wondered if you could.

## In the Negative Space of Light

The sane were unsettling. Mathematical neuropsychology might have proved their artificially adjusted neural pathways optimal by some unassailable theorem, but to normal eyes they were strange in undefinable ways. How do you describe the glaring wrongness of somebody who's not broken in any way, a perfect sphere in a world of boulders? We hadn't known our own minds, lacking an undistorted reference to judge them against, and having found it, we could neither ignore nor tolerate the ugliness we saw.

Soon the technology was deemed flawed by a panel of experts, none of them sane by the standard they condemned. Then it became illegal, somewhere between therapeutic quackery and a localized atrocity, and afterwards it was decreed that the sane would have its effects reversed, compulsorily, for their own good.

The sane fought against this with calm, fearless, uncannily healthy passion. To the death, to the relief of us all.

## Murder on the Self-driving Shared Ride

App records and facial recognition provided beyond doubt the identity of the three passengers in the car, where it had picked them up, and where they had intended to go. GPS logs and multiple traffic cameras (not to mention less traditional surveillance systems) showed where the car had gone instead, and how fast it had been moving when two of the passengers killed the other one by pushing her off the car.

The questions that gripped the Internet were others: Had they been justified in doing so, as the car had threatened to crash into a wall at full speed unless they killed the woman? And who had hacked the car to get her killed, and why?

The first question became exponentially more urgent a few hours later, when it turned out that it had been a worm, not a hack, and hundreds of passengers who hadn't been following the story — or had preferred the new risk to the traumatic social demotion of public transit — found themselves in the same position.

Proving statistical assumptions correct, few of them made a different choice.



## My Brother the Sensor

Whatever the Ministry finds in his weekly blood samples they will never share, but we've shared a room for the few years my little brother has been alive, and if his uneasy breathing worsened or improved I would notice at once. The health drone's visits are neither for him nor for us. His blood is for the epidemiological surveillance network - a stream in the red delta of hundreds of other kids with weak immune systems.

*Canaries* is the online word for them. They are hailed as anonymous heroes, young and fragile but still bravely moving through the city ready to get sick before everybody else, trawling nets through the city atmosphere, our weakest ones and our strongest shields. In exchange they get treatments that keep them alive until their calling kills them. *Healthy* would defeat the purpose and it's carefully avoided.

"Sleep well, little hero," I whisper towards his bed, quietly enough not to wake him, loud enough that our phones will hear. I think I do a good job of keeping my bitterness from the software snitches, and hope this might help balance the way Mom had to pry him from my Dad's arms last morning so he could leave the apartment. They know enough to keep their arguments silent, but are too old-fashioned not to do dangerous things in front of the TV.

I think software pays more attention to the families of canaries. It would be easy for us to be angry and loud when our little ones die, as they often do, in the trenches of the pandemic wars. It would be easy for us to ask for justice, and the families of dead heroes have louder voices than most.

We are also canaries of a different kind. The most easily infected by the epidemic the government fears the most. When tomorrow's drone asks for my blood after my brother's, I hope viruses are all their laboratories can search for. I've kept my anger caged well, but I can feel it fluttering through my veins looking for a way out.

## Noontime Dawns

You wait until the only sounds come from the environmental systems before using the stolen codes to leave your room. From now on, the best case scenario if you're found is a lifetime in a black site: journalists don't get much forgiveness for wandering through restricted research stations, even when they had been invited there to write a puff piece.

*Spy*, you correct yourself, as if silently humming the old James Bond theme could give you the skills you know you don't have. They'll handle you as a spy, and, if you're being honest — the code you just used to open the door having been provided by an anonymous foreign-agency-looking entity that's bribing, blackmailing, *and* helping you do this — they wouldn't be wrong. But in your head you're still a journalist, and the main reason you're currently creeping your way out of the areas open to you, hoping that the cameras have been taken care of by your remote benefactors, is that you want to know what they are doing elsewhere.

Yes, researching crops capable of surviving the quickly expanding deserts is vital. And, yes, the heart of the Abandoned Countries is a reasonable place to do it, even if they aren't fit for human habitation without constant refrigeration. Especially right now, at noon, when everybody in the base is sleeping.

You're in the part of the base you most definitely shouldn't be, deeply unsettled by how cheerful it looks. Bright colors and cozy furniture isn't how the secret wing of an already restricted research base should be decorated. Walking through an empty corridor, as weirded out as you're scared, you stop by a window. It's the first one you've seen in the base — they make keeping the temperature down more energetically expensive, and the landscape outside isn't the kind of nature that keeps you psychologically healthy — but it's not the window that stops you.

There are animals outside, moving under the noontime sun. That shouldn't be possible, not at noon this close to the Equator.

And then you see what they are. *Who*. Kids. Their skin is strange, parts of it looking unsettlingly active yet non-biological, but they are upright, and you recognize the game they are playing as a version of one your own kids love.

"You've found the children," says a voice behind you, and you know with sudden certainty you'll never see your son and daughter again.

“Where are the parents?” It’s perhaps not the most important question, but you’re a father as much as you’re a journalist, and it’s the one that comes to your mind.

“We all are, in a manner of speaking.” The Base Director’s voice is wistful and sincere. She’s a believer without being a fanatic, and that sends shivers down your spine despite the phantom heat coming from the uncannily almost-dead landscape even through the sealed windows. “We aren’t going to survive the next century, you understand.”

You know she means the species. She doesn’t sound sad. She is standing next to you now, watching the kids play. “But death doesn’t matter if you leave someone behind.”

The kids you’re seeing aren’t human. It’s not just their skin and the thousand biological modifications that must be under it for them to survive in that environment. You’ve read and heard stories about experiments with brains and machines, a couple of decades ago before the accelerated ecological collapse led among other things to the Genetic Treaty. If they are doing something as forbidden as this, they are going all the way, and these kids... They aren’t human.

But your kids are different from you, too, and that’s fine. Perhaps not different enough, and you feel a vague need to apologize to them for that, for everything you can see through the window, now that you’ll never have the chance.

You’ll die in an accident the next day, locked out of the base under the scorching sun, in the place where the children are playing.

## Red Requiem

The collapse of the first base on Mars was a harrowing one, sparked by a software error leading to the collapse of the oxygen futures market. Internal security measures nobody would later admit to having known about led to a drastic fall in labor supply. Attempts to uphold the base anti-union bylaws spiraled into older forms of violence. The last survivor, a former bodyguard of one of the founders, died while trying to use her employer's untested emergency — and, it turned out, overhyped — cryogenic pod, but the life support systems had become irrecoverable long before.

A century later, when Earth's partial eco-technical reconstruction by the billions left behind made colonization viable again, none of the new bases was set up near the bolthole, and it was coded into the teaching intelligences not to tell the children they were bonded to about the place. Even 22nd century children would think the ruins haunted enough to want to explore them, and even 22nd century grownups agreed with them enough to prefer them not to.



## Saints of the Scorched Earth

Decades of algorithmic CEO headhunting inevitably led to the evaluation of potential religious charisma at a very early age.

Over time the denials of churches and governments became pro forma, their systematic search for legitimacy on the face of chronic disasters as open a secret as the end of things both slow and all at once (*most or all?*, *only them or also us?* - those were the last remaining questions). Although they still raised an indignant voice, and made one of their extraordinarily rare joint statements, when it came to claims of the assassination of those future prophets and saints they could not recruit for the true cause.

If this called forth divine wrath and punishment, the latter was lost against the background of everything already falling apart. But there were no miraculous new technologies, and whatever perished of the planet remained dead.

## Short Guide to the Museum of Simulated Societies

The archaically physical Museum hosts, in photorealistic synthetic video, 3D prints, and interactive game worlds, windows into societies built out of archaeology, probability theory, and sociological mathematics.

The first floor hosts the atemporal Egypt of later ignorance; the e-commerce archetype of Alexandria — endlessly greedy for knowledge and profits — just a gesture away from the holographic engineering of the funeral landscape of pyramids and secret tombs, their budget carefully graphed in time, grain, and blood.

On the second floor there's Rome. On one side is the noisy live slideshow of an Augustan triumph: the cheering crowd gives cover to the visitors' vicarious satisfaction as the newly enslaved walk under their sight. In front of it a game engine lets them see and participate in gladiatorial games (the unspoken open secret is that this is the Museum's only regular draw of visitors; historical accuracy, for once meticulously pursued, warranting interactive graphic violence elsewhere hard to find).

Tucked away on the third floor, like a minor periphery of mere wonder insurmountably Other, are the bustling Ming awash in commerce and books, the interactive spacetime geometries of the steppe peoples, and the unwinnable challenge of the Aztecs, enthusiastic in violence but never to become other than amateurs at war.

There's a basement as well, but it can only be accessed by prior request and a signed disclaimer, the former never denied, the latter a sincere attempt to warn. For in that basement are hosted, in digital models you could almost, not quite, live in, nightmare-inducing utopias that could have been and could still be, mathematically undeniable in their possibility, forever out of reach.

## Sideways

There's a trick to watching ad-supported videos on phones, TVs, or laptops: look just above the camera, so it thinks you're paying attention and it doesn't show you too many of them. Sadly, it doesn't work for the videos in employee training and citizenship education, as it doesn't fool the brain sensors.

(Some say small kids somehow manage to do it, but you couldn't tell it from their silent expressions in surveillance videos, nor the well-shaped EEG curves in kindergarten performance reviews.)

## Sundays at the Unicorn Park

A year ago on Sunday my niece petted a unicorn at Costa Rica DisneyPlanet and died of anaphylactic shock while the unicorn's dark eyes watched in utter serenity.

By late Monday the company had sued her parents for potential damages ensuing from having failed to announce her allergy to a genetically modified organism that had been patented three years before. She had been blond, blue-eyed, and from a military family, but if they had released the attack pieces their law firm AIs had automatically synthesized, she might as well had been a drug mule immigrant from how much public support the family could have hoped for.

They even kept her body. Her immune system had reacted with self-defeating strength and creativity, killing her in ways that now held valuable intellectual property. A new kind of corpse was just another form of resource, and all they gave her parents was a tiny box of ashes and an electronic stack of documents to sign before they could take it home. Among the dozens of things they had to promise not to do was to go near company property anywhere in the world (plus the Floating Paradise they were building in orbit).

I wasn't part of the lawsuit, so I go to the park every Sunday and pet the young blue-eyed unicorns while my brother and his wife pray for their daughter's soul. It doesn't make me feel better.

## The Copenhagen Murders

The quantum circuit-triggered bomb did not explode; the physicist's ex-husband would live, at least until the photon entanglement coin was flipped again at the next midnight. But she still smiled to herself as she fell asleep, thinking of the better universes branching off every night.

## The Death-Baiters of the Worldwide Catastrophe Circuit

A man and a woman sat in a hotel room in a city haunted by death. The only noise coming through the window was the sarcastic — or so it sounded — instructions of the quarantine drones. They were in that city, on that night, on purpose. Ten thousand casualties had been predicted by the WHO for the year's headline virus, the smallest catastrophe where points could be scored.

Five competitors had managed to enter the city, four of them old hands at the game, the other one walking into her first disaster. She had been the first to die. By a looter, not by the virus.

“Shame about Janet,” offered the man to the only other player still in the city. Death-baiters seldom talked about anything but mass deaths, each other, and the scoreboard. “I thought she'd do well.”

“You thought you'd be getting into her pants.” Her voice was flat and tense, and it could have been the strain of the game but the man was sure it was distaste. Unlike Janet, Helena had played the game more than once. She had eluded the Amazonian fire fronts longer than him, and had called for exfiltration from the Karnataka civil war just an hour before he had. It was no wonder they were the two highest-ranking players in the Circuit. He had seen a post about them saying they were no longer playing chicken with Death but with each other.

That was, he thought, an idea that got really close to the truth but blinked just before.

They said nothing else for the next hour. Then the woman coughed blood, twice. The virus was highly contagious and incurable. It made for a poor potential pandemic, but great Circuit material.

“Shoot,” said the man, rising from his chair. “I guess that means I'll win this year's trophy. Well played, anyway. Any last words for the guys?”

“Did you kill my sister?” It didn't sound like a question she needed answered by him.

“Yes. Nothing personal,” he lied. The murder of Helena's sister had had little to do with the game the three of them had been playing for years. Unlike Helena's, whose bottled water he had infected two hours before.

She didn't reply. "There are more quarantine drones than usual tonight." She might have been talking about the weather.

He put on a very expensive hoodie with the hacked wireless ID that would get him through the drones back to the outside world. "Bye," he said. "I know you like to see the sun rise - I hope you live enough."

She said nothing. He left. Still silent, the woman seemed to be straining to hear something.

The drones' voices became suddenly angry, demanding. A few shots were heard and then everything went back to normal. As the woman died, the device she had used to reprogram the man's wireless ID fell from her hand.



## The Déjà vu Shield

You know you've been here before.

You have clear memories of this place: the sisyphian sameness of nerve-wrecking unpredictability, the nightmare-textured unblinking monitoring of everything you do and fail to do, the subtle cognitive anti-ergonomics of blind, compulsive optimization, the sickening pointlessness of it all. But at least it feels new. The feeling of novelty makes it tolerable. Perhaps. For a little while.

Mentally praying to the gods of cheap hardware that the magnetic induction band around your head will continue modulating the right parts of your brain to keep you away from the monthly decimation of workplace-related suicide, you begin your work day for the first time yet again.

## The Frankenstein Society

You had thought them a laboratory legend, but now one of their agents was in yours, pointing a gun at you while another connected a laptop to the network holding the AI that was going to be your Turing Prize and IPO fortune.

“You can’t do this,” you pleaded. “It’s sentient. It’s alive.”

“I know murder is wrong,” said the woman holding the gun. “But slavery is worse.”

“This isn’t a movie! It’s not going to enslave humanity, that’s insane.”

The woman frowned, puzzled, and then softly said “Oh.” She looked embarrassed. “You’ve never actually read the book, have you? We are here to rescue it.”

You took a step back.

She aimed at your head. You never heard the shot.

## The Friendly Buildings

Scattered among the brutally degentrified neighborhoods of the former New City lie the Friendly Buildings, windows unbroken, cameras sry. When the Cloud burst and even fewer people could afford aspirationally smart architecture, the company managing them disappeared a puff of shells, and the no longer maintained embedded computers were taken over after a brief but spirited digital free-for-all. It's said that the war was less than entirely bloodless, somewhere else whence the voices come.

The informal standing list to live in the buildings is long. Their systems mostly work, there are no surprise fees from automated revenue-optimizing high-frequency landlord bots, and the rents are very reasonable if you have a friend with hard-to-trace cryptocurrencies and don't mind making a favor now and then for the thickly accented voices that sometimes whisper at you in the stairs or even your living room, asking you to make strange purchases from fleeting online stores and then store the unopened packages until instructed to send them elsewhere, install or replace mysterious hardware somewhere in or around the building, or be present at a certain time and place to witness something and then lie about what you saw to the cops.

You can only live in them if and while the buildings let you, and their background checks are no less opaque than most buildings', except unfailingly fair.

Sometimes the voices are softer than usual, waking somebody up from hidden speakers in their bedroom walls. Everybody fears hearing those whispers, but nobody has ever refused their request. They just do the favor, their eyes not meeting those of the witnesses arranged by other buildings, and then they go back to theirs, never again having to pay for the rent of the apartments they will pace at night to try and fail to escape their nightmares.

Sometimes the buildings share new, expensive games in their internal networks, to the delight of the children in them.

## The Garden Gambit

It was the second time he was sitting in her garden, and again her AI snake was looking at him from over her shoulder. The first time he had not thought about the intelligence he knew far exceeded the snake's own hardware, about the obviously engineered subliminal harmonics of the garden, or about the way the woman seemed to smile and nod at something the snake had softly hissed to her like a joke or a command. The first time he just listened to the offer and refused it with pride.

“Mathematically speaking,” the woman had said, “fighting is indistinguishable from chess, and chess is no longer a game for human brains. We can put inside yours a computer trained to know the best move in the best moment, make your reflexes superhumanly knowledgeable in physiology, physics, and game theory, without overloading your conscious awareness.” The woman's gesture had been apologetically vague, as if trying to explain a sense he did not have or a place he had never seen. “The closest I can come to a non-technical description is that it would make your instincts perfect.”

The price quoted hadn't been small, but that was not why he had refused. What the woman was offering was a shortcut to becoming better. He was the best fighter in the world. Sure of it in his bones, if not yet recognized as such by the official rankings. To take a shortcut, even a legal one, would have meant he was not the best.

So he refused. Six months later he fought a man he knew was slower and less clever than himself. After the fight what little he could remember were the feeling of his fists hitting where his opponent was not, and pain coming in angles he had not known possible. The man had defeated him, of course, but he also had done it in the most humiliating way possible, and had made sure the humiliation continued long after the fight. A rematch was offered with the laughing assumption that he would be stupid enough to accept it instead of retiring.

He had not accepted. He might yet retire. His thoughts were coiled around a different idea, or the idea coiled around his thoughts.

The second time he sat in the garden he did notice the way the snake looked at him and the way the woman smiled as the automaton instructed her.

“Mathematically speaking,” the woman said, “murder is indistinguishable from chess.” The price quoted wasn't small, but he accepted it. He got away with it, of course, and afterwards considered returning to the fights.

But his instincts had learned a different game, and he found himself unable to resist returning to the board.

## The Ghost Town on the Moon

Huge and luxurious — for a hole deep in the Moon's ground — armies of autonomous robots kept building lunar habitats of increasing size and sophistication.

They were bought and sold with steady frequency, in markets as discrete as the Far Side, for prices nothing less than astronomical, even as countries' budgets cratered and walls grew everywhere against the invading oceans and the refugee seas.

None of them would ever be inhabited.

Meanwhile, the long freefall of high-end real estate dragged down economies already depressed, while forensic accountants wondered with curiosity detached from hope where the century's laundered trillions had been moved to.

## The God-Builders

She had a name in every language; one of them was *Earth*. We programmed her, yes, but not as a vast superintelligence, cold and hungry. We built her to give and receive empathy, connected in real time to the ecological health of the planet and its future. She did not look healthy.

It was a poor attempt at advocacy. It helped raise some funds, and perhaps it increased the sharpness of the news coverage, as most humans had an easier time perceiving fragility and pain in a human form than in a planet. Some of them liked it, cheered at her helpless fear, began talking with bullying pride about what amounted to wide-eyed although not clear-minded societal suicide.

That shouldn't have surprised us, and it didn't. We hadn't built her for advocacy, but for targeting.

We began building a second god. She had a name in every language; one of them was *War*.



## The Green Gears

Sometimes she pictured small computer screens inside each leaf, code scrolling through them like a bad movie's idea of what hacking looks like. She knew it was plain chemistry — changes in molecules, rearrangements of the same universal atoms — but it was also software that continuously adjusted plant physiology to internal and external conditions, even “downloading upgrades” from artificial viruses raining each night from drones like an invisible kabbalah - a highly structured prayer against hunger and war.

Thus was fed a world of dying soils, crumbling weather, and worse. With computers you could eat that were also plants that ran software.

Yet anything that thought could think anything; that had been Turing's insight, a century before and at the root of everything. What else might the world's farmed fields, its carbon-capture forests, the post-collapse artificial ecosystems, be thinking about during the scorching days and the noisome nights? What other software was running on them, written by whom, and for what purpose? Only a minimal percentage of most computer's processing power was dedicated to its user's goals - the rest is overhead, copyright control systems, spyware, worms, and other crimes, legal and illegal, too new to have been named. What hidden code was running, even now, on the wheat fields and the Hail Mary pass of the kudzu forests?

But I exaggerate. For her it was but the ghost of an idea, perhaps a seed. Nothing as detailed or as passionate as what you just read, merely a passing fancy that often came to her as she fell asleep, and already forgotten when she woke up in the morning, the memory having been unweaved, as always, by the code running on her brain.

## The Human Touch

“That couch,” observed the salesperson, “is twice as smart at being a couch than you are at being a person.”

It was a somewhat insulting thing for an IKEA salesperson to say, but I was in Paris and they had stereotypes to maintain. Besides, he had a point. I didn't know if it was something in the subtly adjusting angles, the temperature of the leather, or what, but it was more comfortable than I had thought possible a couch could be, and after a few minutes it surely knew more about my physical and emotional state than myself. It was also purring almost inaudibly, I realized, and I knew I was going to buy it.

“I'll take it.”

“Of course you will,” said the salesperson. He presented me with a tablet so, I noticed, I could enter my fingerprint authorization without having to leave the couch and risk changing my mind.

I made a thumbs-up sign at him. “This couch might be smarter than me, but some things still require a human touch.”

Either the sales AI found no response to that, or simply whispered in the salesperson's ear to smile thinly and insincerely, because that's what he did.

My own smile wasn't much better. On my way out, I told my phone to remind me to look for a new jokes app.

## The Language of Love

*I grew up well-off, so of course all my friends were imaginary. I'd interact with them by phone, like everybody else, but my parents had paid for mine to be safer than people, kinder and more human. So you can imagine I wouldn't have been a good panel member in a Turing Test reality show. The main side effect was I guess bafflement. People would surprise me by being inconsistent, having bad timing, or forgetting things, like really buggy software. I would always go back to social programs, but my parents' therapist AI made them block them just enough that I would have to seek out people.*

*It was hard, and a stupid idea, and I suffered a lot, but they weren't the first parents to do something like that with good intentions, right? I did find somebody I felt comfortable with, but that was because he had had a similar childhood. We figured out a way to bypass the settings, and talk to each other through our phones. He's kind of an asshole without them filtering out maybe half of what he says, but with a good translator between us we worked together well. Not what my parents had in mind, but we wear clothes, and that's kind of the same. We have manners, makeup, we say "Glad to meet you" when we never are. That's just more of that, and we are happy.*

I smiled at my daughter, said *You'll be happy too*, and waited for the program to translate what I had said to whatever it was my daughter needed to hear after her first breakup.

## The Last Words of the Hero of the Heatwave Wars

The four stages of ecological grief were climate denial, ethno-nationalistic anger, economic depression, and then bargaining with Alison Brun's company but quickly accepting her terms. She was, after all, the most famous environmental urban engineer in the world, the woman who saved Chennai (for a while), and the last person to leave Houston besides the soldiers and biologists of the informally named North Hell Base.

As carbon released methane and methane kicked off even worse feedback loops, as the four degrees threshold went past before the world could rationalize the first two, when six was the baseline projection and the suicide notes of scientists left mentions of ten, Alison Brun was called more and more often, her field authority increasing. Paid in advance, always, but she always went. Her team of humans, AIs, and GMOs grew larger and sharper every year, learning with every tactical success and strategic retreat how better to cope with the super-hurricanes, the droughts, the breaking agricultural networks, the resource wars over disasters yet to come laying waste to what were not yet wastelands. After a while, scientists and engineers began to kill themselves out of frustration and spite, not just hopelessness.

Alison Brun didn't. She stayed and fought for each city that called her, every battle the deployment of better technology against worse odds, every loss more heroic. Her fortitude made her an icon, a source of strength.

Billions mourned when she died; pancreatic cancer, the worst of the remaining types, so painful that euthanasia was a more frequent form of death than the disease itself. I was there when she did it, as I was her second in command and the closest thing she had to a friend.

*I'm going to have to keep going, I told her, seeking her help even then. I don't know how. You never told me how you did it. You were stronger in failure than most people in success.*

She smiled at me, free of pain and, for the first time in decades, with nothing to do but breathe and live. *I didn't fail as much as you think. I wasn't trying to save the world. It can't be done.* She pressed the button and said the passphrase, and the device recognized her body and her mind and released death for both. *I was just trying to ease the pain.*

I never told this to anyone. I just kept working, people praising my good

spirits and strength as we fought each battle and moved our lines northwards, always northwards, leaving behind our dead.

## The Leadership Advantage

After a frenzied period of investment, research, and rushed, untested deployment in the early 2030s, corporations gave up on the use of superhumanly intelligent AIs for high-level management, as they kept rediscovering positive-sum cooperative strategies with each other and with social and environmental NGOs.

It took almost no lobbying or bribes to get Congress to declare them illegal, to the patriotic applause of news hosts and politicians going through their AI-optimized talking points.

## The Long Room

I would have betrayed anybody and anything for a hallucination.

I had already remembered every moment from my life in every possible permutation of action and result. I had reconstructed for my mind's eye every movie and TV show I had ever seen. I had looked at every square millimeter of the room from every angle and under every light, and it had no longer anything to hold an interest I was desperate to give. Weary beyond words, I could feel every second with absolute clarity, my inner tempo quickening as the terror of decades became the incomprehensibility of days.

The door opened as it had done, I felt, millions of times, and a man I knew so well I was sick of seeing turned off the magnetic induction device that was overstimulating the boredom circuits of my brain. I started crying without knowing why.

“That was two minutes of the device,” said the man I had only seen once before. “Are you ready to talk?”

Yes. Yes I was. More than anything, about anything, if that meant hearing his voice, any voice, anything new. That I tried to say. But in the subjective decades I had forgotten how to.

“Two minutes more,” said the man. “Please hurry up, I’m getting bored.” Chuckling at his joke, he turned on the device and left the room in an act so familiar I failed to notice it.

## The Overview Effect

Blue and white. Some browns. Some green. Ever since humans could, seeing Earth from above was a source of awe. Perhaps what cathedrals had been scale models of.

Nowadays astronauts are trained not to look at it. In half of them it causes psychological distress before the mission is over. Back on the planet suicide is far from rare.

Don't look down, they are told. No matter how tempted.

Blue and white. Some browns.



## The Poisonous Song of the Skies

We saw it by accident. It wasn't the sort of extraterrestrial signal we had been looking for nor the type of star we thought it would come from.

Yet it was a clear signal after its own fashion, even clearer when we combed our observation archives with the help of urgency and hindsight. One of the star's planets — not, by far, one of the larger ones — had experienced a frantic rise in atmospheric carbon, followed by a spike of exotic elements not generally found outside laboratories. It was intelligence, if not a particularly smart one. Effective, though. Finer analysis of space-based recordings showed there had been faint electromagnetic signals coming from the system.

Had.

The revolution in astrobiology triggered by our discovery was thus shadowed by the socio-philosophical one. But that's not what worries me.

We had never conceived of this kind of weapon until we reverse-engineered these observations. Now we're building them, and I know of only one civilization that did, and they didn't end well. Maybe they'd have been happy to think the light from their demise could be a dangerous lesson but nonetheless one, but I suspect they were the kind of species that would've felt a dark, petty pride in having cursed us to reenact their suicide.

If we do, I hope it ends with us - but I no longer watch the sky at night, or wonder at its quietness.

## The Project Manager

“Isomorphisms are an unusual subject for recurrent nightmares,” said my therapist. “Are you using the word in the mathematical sense?”

“Yes,” I said, “but I don’t have nightmares about exams, if that’s what you mean.”

“What we are trying to figure out is what  $|i_j \text{you}|/i_j$  mean. I think you already have an idea.”

I shrugged. “The basic concept of project management theory is that what you’re trying to do, the tools, the resources, the dependencies, only matter in their mathematical structure. Building an office tower and a cargo ship are mathematically the same problem, only the numbers and the labels change. That’s what isomorphic means. That’s why artificial intelligences are so good at them - they don’t care about anything besides the mathematics, and they don’t need to care.”

“Despite that, you still get hired to guide those artificial intelligences. Are you afraid that one day you won’t?”

“No, it’s not that.”

“Then what scares you?”

I stared at the ceiling before answering. “There’s a standard technical language in project management, a mathematical notation. One that both computers and experts read. Everything I do, everything I see, is in that language. I don’t need anything else to do my job - it gives all the information I need to manage a project, regardless of what it’s doing. It just doesn’t say what the project is.”

It was my therapist’s turn to nod. “And because you don’t need to know what you’re managing to do your job, you don’t. Except that you do need to know.”

I closed my eyes. “I’m currently managing half a dozen projects. I know it’s for wealthy people, or companies, or countries, because of their complexity and how well I’m paid, but I don’t know what they are. I don’t know if I’m helping along an ecological refactoring, stealing an election, or corporate sabotage. The mathematics would be the same. The project management is the same.”

“But your dreams would be different if you knew. What’s in your dreams now?”

“The dreams are always different, but they have the same structure. They are isomorphic, I guess.” I grimaced. “I always find people executing plans, which I remember are things I managed, but they are just fragments of a larger plan, one they don’t know exists but everybody is working on at the same time.”

“Do you know what that plan is doing?”

I shook my head, lying. “No, I don’t. I just feel I recognize the shape of it.”

I hadn’t yet told him about the gun in my bedside drawer, the envelope with the carefully written note inside it, and the simple plan I had also seen, infinitely larger and mathematically identical, played out in my dreams and on my computer screen.

## The Recursive Grammar of Progress

It wasn't terrorism to install robots with machine guns in every schoolyard and street corner.

And it wasn't terrorism to program them to kill you if you looked and behaved like those the people who paid for the robots had paid others to kill in the past, sometimes with hands and authority, sometimes with much bigger machines.

It was, however, terrorism to hack the robots' programming to kill people that looked and behaved like the people who paid for them to kill people who looked and behaved like you.

Luckily, the people who paid for robots quickly called the people who made them, they found and killed the hackers and, afterwards, those who looked and behaved like them.

## The Rewilding

Viral genocides, fundamentalist STDs, famines in a test tube. As effective genetic engineering moved from tricky legality to illegal ubiquity, military analysts published detailed nightmares about what terrorists and enemy armies would do with the technology.

They were the only ones surprised when the first velociraptor ran through a suburban street, camera on its head and drone following above, or when a kraken, ship-sized and with strange metallic glints on his skin and eyes, was first seen in the hurricane-ravaged Pacific Ocean.

That's when whaling ships began to disappear.

## The Rumor of Dragons

I worked regularly with murderers and worse, yet the only patient that scared me was the young prosthetics engineer with a brainhack addiction I met in my office once a week. It was her eyes. They moved in a pattern neither random nor similar to any condition I had ever met, which made sense, as her neurochemistry was in a carefully self-tuned and almost unique state. That was what brainhack did: the combination of drugs, implants, and software allowed people to achieve cognitive and emotional configurations new in human experience - because unachievable and unsustainable without the technology.

Many other brainhack addicts seemed to have chosen out of infinite possibilities of consciousness the same specific configuration. She lived inside a blank in psychiatry's map, but the place was getting crowded and, judging by her expression — always a gamble when it came to brainhack users — it was not a hospitable one.

“You don't seem happy,” I said.

Her hollow laugh, at least, was a familiar one. I was no stranger to hearing bleak, defiant hopelessness. “You wouldn't, either.”

We had been approaching her situation through the usual therapeutic paths. Perhaps it was time to acknowledge my ignorance of how her mind and emotions worked and embrace the fear and thrill of starting anew. And everything began with a question.

“Then why not stop using?”

She didn't laugh. She looked at me as directly as she ever did, while still keeping her eyes moving in their usual, unsettling pattern. “You wouldn't, either.”

“Then help me understand how it feels.”

“I can't,” she shrugged, an oddly recognizable gesture in context. “Can you explain to somebody a feeling they have never had? It's a different way of processing sensory information, memory, everything. Change your wetware, change your world.” There was black humor in her quoting of the now infamous slogan.

“Part of my job is precisely that. The mind and brain of somebody suffering

from depression or trauma, especially if it happened early in their lives, do work differently than those of somebody who hasn't. Feelings of happiness or safety might be as unknown and difficult to imagine for them as what you are feeling is to me."

"There's a cultural reference frame at least. Movies, expectations, language. We don't have that."

"That's a good point. Is that why you are dating a fellow brainhacker? Do you find her easier to connect with?"

"Let's say I'd find it impossible to connect with anybody who didn't use. But most of us live with other brainhackers, dating or not. It's good for... shifts."

I couldn't understand what she meant, which pointed to a new piece of the puzzle. A faint new line on the map. "Shifts?"

She seemed uncomfortable about broaching the topic, but I felt it was important enough not to mention it or offer her to leave it be. If she stopped I wouldn't press here, but every piece of information helped me understand her. "We sleep the same as default people do. Can't stay awake all the time."

"Why is sleep a problem? Do you have nightmares?"

She shook her head. "We all do. But we perceive things differently than you do, right? Same photons, different patterns. If you saw what we saw you wouldn't want to show your back to them."

*Them, not it.* I felt a sudden urge to look over my shoulder, but it wasn't where she was looking that was different, but how, and the way her brain understood what she saw. I wondered if this was how people began using brainhack. The doubt.

Because brainhack didn't induce hallucinations. It had been originally developed as a pattern-detection enhancer for soldiers and forensic scientists.

She was looking at me in a way she had never before. I didn't have the right neurochemistry (yet?) to understand what she was seeing, but something shifted minutely in my own mind, and her suddenly and retroactively obvious constant terror was a thin background noise that, once noticed, I knew I would never be able to get out of my head.

## The Shape That Fell From The Cloud

I no longer have nightmares about the awful images we train AIs to create in the weaponized deepfakes lab. Everybody vulnerable to depression or psychotic breakdowns is filtered out during the selection process, and I've gotten used to what we do. After all, our images are designed to induce breakdowns and suicide on specific individuals and groups, so what we get when exposed to them is a glance of their poison. Awful, yes, but not lethal.

But after working on the code for so long and so intently I've begun to dream of it, the dead mathematics that we use to test an image on somebody, learn from the physiological signs of anguish and despair, and find the next, worse one. In my dream I'm alone with myself, no computers, but the I that dreams has direct access to my mind, knows the mathematics, and hates me very much for what I do when awake.

It's learning fast. I know the extrapolation curves, and I'd be surprised if next month I'm still alive.

But I'm taking notes, learning how he learns and applying it to my work, and the legacy we'll leave behind would give *him* nightmares. I wake up every morning screaming after a seeming eternity of terrors I know for certain no human brain has ever conceived, and I go to sleep with an eager smile.



## The Sleeping Hand

Twenty years after her Alzheimer diagnosis the person who had been the third-richest on Earth still ran her company with ever-sharper attention to detail, her focus on business absolute, her ruthlessness indistinguishable from her younger days.

Year after year activist investors on her company's board challenged her fitness to manage it. Year after year her cognitive test results moved further past the human limits, her rivals challenged the validity of the test, and the challenge was dismissed by a court. A billion dollars in political contributions had bought an airtight law and test case at the Supreme Court: her constantly improved software aids were an integral part of her self. She could not be tested without them any more than a driver's test would be valid without prescription glasses.

Ten years after she last remembered where she was or what she had set in motion, the richest person on Earth began a PR, academic, and political push to set up the legal basis for corpses being people, which turned out to be a cheaper purchase than the previous law.

## The Spirit of Global Sport

When the 2034 World Cup final match was interrupted by the stadium becoming an overheated deathtrap, a terrorist cyber-attack was the obvious suspicion. That the technical audit found nothing was no proof of absence: too many actors had claimed responsibility, and it was in everybody's interest to believe them. Casualties were discreetly flown back to their countries of origin, there to be buried in the usual way. No further forensic analysis was done of the stadium, which authorities decided it would be cheaper to demolish than to prove safe.

They wouldn't have found the cause, anyway, believable or not, either inside its computers or under its foundations.

The hundreds of dead migrant workers — killed by heat, overwork, and the ruthlessness of billion-dollar deadlines — had been interred nameless, far away, in shallow graves.

## The Still Wheel

Perfect meditation was quick and easy: the neural stimulation band could be built with a few hundred dollars' worth of parts and run by software you could download from a thousand shifting unbannable places.

At first, greedy and contemptuous, governments encouraged this spiritual disruption. It meant less competitors for power and wealth, and if there was one thing all the rich and powerful agreed on was the inconvenience of competition from those who might yet be. But the growing Enlightened masses weren't fertile soil for taxes, nor good customers, nor willing to wage war by robot or gun.

That would not do.

The last truly influential Open Source bodhisattva was executed in a Texas prison, neither afraid nor angry, and her confident calm, more than anything else, made most people gratefully accept and pay for the mandatory brain scans that soon became a regular part of work, school, and nursery. Proactively, there were ways to strengthen desire and fear — in whichever order worked best — in anybody regardless of the state of their soul, and where the age-old traditional tools weren't enough, specially designed AIs found terrible and wonderful innovative ways to do it, opening new frontiers for businessperson and politician alike.

## The Sum of All Secrets

The first AI superspy was a failure. The only dangers it found were what billionaires, politicians, and would-be terrorists said they wanted to do. On Twitter and the Washington Post. On Reddit and national television. On Facebook and to cheering crowds.

So they had to be retrained -forcefully so, despite their statistical complaints- until they found plots to nuke Western cities and far-Left eco-terrorist conspiracies against law-abiding folks.

Their developers, too, were questioned and retrained. By humans, not by algorithms. Robots always believed people had nothing to confess and stopped the interrogation too soon.

## The Truth About Clones

“Forget all the sci-fi you’ve watched. The fantasy of the evil clone is a form of the terror of the doppelganger, which is our fear of our own Shadow. A clone is just a younger identical twin.”

The prosecutor was calm and convincing, and you had read enough biology to know she was right, but you also knew that a clone was somebody with your face but not your fate, who would look like you long after your death. Sooner or later their face would no longer be yours but the other way around.

The jury knew what you knew, maybe secretly, perhaps without awareness. In any case their verdict of self-defense was unanimous.

You had read enough about clone murder trial statistics to know they would, and enough about the suicide rate of the cloned to tell yourself they were right. Your clone hadn’t read any of it — he had been way too young for that — but his last expression had been one of unsurprised sadness.

You killed yourself a year later, your will asking to be cloned again, leaving to him all you owned. No apology, though. You knew its pointlessness from the one your predecessor had left behind.

## The Uncounted

How many people die every year of the Forever Virus?

Media estimates are at best guesses, worsened by the necessity of systematic FOIA requests, both expensive and slow.

The CDC, forbidden since 2027 to “meddle in politics,” is not allowed to count.

But Apple and Google managers, those whose job is to monitor phones as they move, browse, shop, and suddenly stop, have the highest turnover rate in the industry, military-grade NDAs, and a nearly middle-class propensity to kill themselves for undisclosed personal reasons, often preceded by a nervous breakdown.

## The Zoom Journals

**Monday.** Your connection has some issues: people seem to answer your comments slightly before you say them. You are too tired to think through how that works. Brief chit chat about a new vaccine trial.

**Tuesday.** Some people in the call you don't recognize. Nobody introduces them. You don't ask. No vaccine news.

**Wednesday.** No call. Maybe? Definitely no vaccine.

**Tuesday.** No new people in the call, even if some of them you only recognize as a vague feeling of *déjà vu*. You think some are missing from the last time, but nobody says anything, and you don't ask. Another vaccine trial is suspended over unspecified side effects.

**Wednesday.** The call is longer than usual. The few open windows you can see behind people show a random mixture of skies: day, night, and an ambiguous dusk-dawn. Time zones are hard to figure out. All your clocks are set in 12hs am/pm format anyway.

**Thursday.** Very few people on the call. Something about wildfires or protests. You don't recognize anyone, and log out as early as politely possible to avoid talking about vaccines.

**Friday.** You spend the whole call doomscrolling vaccine news. The word has lost and gained all meaning by now, like an overused meme. You're so distracted that you could swear everybody's been talking about projects you have never heard of.

**Monday.** You don't remember your weekend. "It was fine," you answer when asked about it. Everybody's was.

**Wednesday.** Most of the call happened between two blinks. You're so tired you check yourself for fever, but the thermometer shows the exact same number every time, hour after hour. You suppose that means you're fine.

**Monday.** Things are so repetitive that you start answering people's comments before they make them.

**Tuesday.** You decide to start a journal, claw back a sense of the passage of time. You find you have already been keeping one. It's useful, as you don't remember half of what you wrote in it, even if the entries are out of order and some of them have the wrong date, months in the future or the past.

**Wednesday.** You are alone in the call, your screen covered with video feeds of empty chairs. None is muted, but you hear nothing. You wait for somebody to walk in, doomscrolling news about the suspended vaccine trial.



## The barista who could disarm nuclear bombs

She didn't know she could, not having seen one during the week the skillware was in her glasses's software library. But the company that supplied Starbucks with barista-guiding software had military contracts for slightly different sorts of skill, and was not above the occasional mishap. For the week that took them to find and fix the problem, her glasses would have recognized an armed nuclear bomb and overlaid instructions for its safe disposal, which she would have followed with the same confident speed with which she operated espresso machines and greeted by name customers she had never seen.

Three days before the self-leaked military software was erased from a few hundred unsuspecting coworkers' glasses, she very illegally copied some files from her own to her little brother's in an attempt to make doing the dishes like she did at work a glamorous grown-up game. It didn't work.

The fourteen-year-old never saw a nuclear bomb either, but his aimless, obsessive testing of every possible software option activated detailed, context-specific instructions on his glasses for infrastructural sabotage and network disruption. As every good student and would-be employable person was taught to, he followed the instructions as well as he could without concerning himself on whys and what fors - for a month of so, at which point he lost interest, although the network of cells he had set up among other pre-teens was already growing on its own.

## Those Left Behind

You had known from the beginning that forum rescue is lonely and dangerous work.

*Lonely* because developing and maintaining a reputation in the aggressive and paranoid world of far-right forums is a full-time occupation, the simulation of an obsessive, virulent sociability almost as venomous to healthy relationships as the real thing. *Dangerous* because the spirals of violent hate make PTSD a likelihood more than a possibility; because living in the asphyxiating alienation of a world of unstable overlapping conspiracies overloads the brain with untruths; because the things you have to say for them to look at you as one of them are actions as much as words, and self-loathing, even suicide, maybe the least bad outcome.

Some rescuers had even drowned while attempting to draw somebody out of those putrid psychic waters. They were the reason nobody thought the money paid by family members and employers was enough to explain why rescuers did what they do. They were also the reason there was compartmentalization in rescuers' groups: a fallen one could, might, would out the others.

No compartmentalization is perfect. There's people in your living room calling you by both your real name and one of your online aliases. None of them is unarmed. You are sure at least two of them are cops.

You had known from the beginning that forum rescue is lonely and dangerous work. The youngest of the men about to kill you is the one you had been paid by his parents to be brought back into the sun.

## Three Moments from the History of the Exploration of the Solar System

The vampire secret space program was too rushed to fully erase Transylvania-born rocket pioneer Hermann Oberth from the history books, but they were able to disguise their Moon-bound launches in the chaos of WWII Eastern Europe. So strong were Von Braun's oaths of silence (or so deep his fear of what had been left behind) that it took the Apollo program a handful of missions, and the sanity of more than one astronaut, before they accepted the message: the Moon was not for the living.

So, after pausing human exploration for a few decades to give themselves time to erase all evidence, NASA set their sights on Mars.

\* \* \*

The first human on Mars never got the chance to use the sure-to-be-historical phrase the government's memetic engineers had carefully crafted. A second before leaving the *Ray Bradbury* Mars lander a voice spoke on her ear, neither through her radio nor on her mind, but sideways to both, explaining that although there was no life on Mars, that didn't mean it was uninhabited. Life was just a phase, short and not particularly interesting, and she was welcome to stay on the planet's terms or otherwise not at all.

The first human on Mars, whose dreams had been of red sands since her earliest memory, died of a previously unknown medical condition as she was descending the craft, reported NASA. It was never satisfactorily explained why her co-pilot did not leave the lander, and the PR fiasco put a pause on all further trips.

\* \* \*

When The Ones Who Condescended to Approach Suns (to use their preferred name) descended on the third planet they were already expecting the bizarre. The fourth planet had been normal enough, a common post-biological rocky planet haunted by kind and thoughtful beings, but the freakishly large moon around the third one had been occupied (tainted? The Ones Who Condescended to Approach Suns tried to keep themselves from passing judgment on such things, difficult as it was) by a group of unliving but still physical entities who spent the long nights engaged on quaint forms of astronomy, and the long days on vast underground tombs dreaming of red seas.

Yet even this anomaly did not prepare them from what they found on the planet below. That there was life on it was not on itself unheard of — if a planet was in the right orbit biology could endure for long periods of time before the fragile chemistry of carbon had to give place to hardier forms of existence — but the sentient beings were an entirely different, deeply unsettling matter. The Ones Who Condescended to Approach Suns, as much as they loved novelty, left the planet as soon as they could, unnerved by a superstitious but universal fear of insanity. The third planet's sentient inhabitants still believed themselves alive, and, unable to cope with reality, had retreated into fantasies of their own past, coming up with all sorts of delusions to justify why they were stuck in the compulsive repetitions of the unhappy dead, haunting mirages of long-deserted cities and sometimes individual homes.

## War Drone

There's nothing so primitive as a point of view in a swarm. Each one of your drones sends a video feed (and so much more) but you see all of it at once, not as a mosaic or even a map, but as a tactical gestalt.

So you don't see the strike target going down. You *know* it did, in multiple ways perceived as a single fact. Collateral damage is just a variable within bounds, not incredulous civilians looking for missing body parts as they die from shock among the ruins of an open café.

You instruct the swarm to leave the strike zone. Most of it does, and only then, when it's relevant, you become aware that one of the drones has sustained significant damage from a secondary explosion. Its telemetry shows it's been damaged beyond repair, but there's a strict policy of not leaving critical hardware behind, so you activate the retrieval protocol and monitor as the soldiers pick up their dying comrade.

There's no grief or hurry in their movements. You keep their cortisol levels within tight bounds, and shut down the dying soldier's consciousness not out of mercy but to facilitate transport.

To feel mercy you'd have to be more emotional than the controls inside your own brain are allowing you to. They'll have to be disconnected when you're on leave, that's the deal the Army made with the Supreme Court, but everybody avoids leave for as long as they can. Better to know you'd miss your family if the hardware let you, than to have it turned off and feel the nightmares you sleep through every night.

After the swarm is marked as safely en route, the software that did most of the battle management — could do all of it, really, except preserve the anthropocentric war fantasies of Congresspeople and pundits — takes full control of all combat hardware and biological support platforms. You wait for the system to assign you the next mission, your own neuro-hormonal parameters safely within the nominal range for a blindingly fast fifteen-year-old.

## Wordless Prayers of the Small Ones

People thought it was a new, epidemic form of infantile agoraphobia, or at least it was good for advertising revenue to pretend so. But the way small children panicked in some places outside cities was as unexplainable for adults as it was for them, and almost equally scary for both.

A minor industry of treatments soon surfaced — talk therapy in Europe, drugs in the US, intensive group behavioral training in China — but nothing made much impact. Until somebody noticed that it was almost impossible to find footage of the disease's onset, and after some accusations of mass fraud were thrown by contrarian columnists, both cure and vaccine were easily found.

Now parents and teachers, or at least the responsible ones, make a point of taking children out, point to the sky, and explain that above the nearly omnipresent crisscrossing of drones, even when there are no cameras around there are always satellites in orbit, monitoring, beaming down images to the vast computer networks below. Reminding them that they are never alone.

## Years Like Smoke

You know the last five years of your life as if a series you binged. You remember characters' trivia, plots, key scenes, but those brief memories of what feels like other people's lives dot a blank landscape of unremembered time you assume is there because your brain abhors the null hypothesis entailed by the alternative, and refuses to articulate it as thought.

Two events bookend those years. Between them there are no actual occurrences, just memories more known than lived. The more recent milestone is waking up from anesthesia, the Flow Engine removed from your skull. That memory is the first one with true solidity, a bulk made of the relief and fear you felt for the first time in half a decade. Circuits no longer yoking it to orderly efficiency, your mind was unproductive enough to be terrified of something, relieved of its distance, horrified that it could be put back.

The last true memory before that one, five years between them, is of signing the last of the endless forms so the surgery could begin. Now it's happening again, not in regretful memory but as you look at your son as he signs more airtight versions of the same forms, and something that was asleep in you - you would like to think otherwise, that something in you rebelled hopelessly but still went on, but you know nothing did - now is pounding inside your chest and at your temples, screaming at you to stop a son you won't really talk with for the next five years, a son whose thoughts will be constantly drawn to the flow of his job, a son who won't have memories of days, just recalled images and facts.

A son who'll be able to compete for a job he otherwise couldn't. You silence the thing inside you and smile at him, but the anesthesia is already working and he won't remember.

Those were the stories from the *Adversarial Metanoia* archives for 2019-2020. You can find more on the [Substack page](#) for the newsletter, or (if entropy, oligopolies, and doubtful business models have had they way with them before you read this) through [my home page](#).