

1

0-Degree Plane of Neuroelectronic Continuity: AI & Psychosocial Evaporation

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Generative AI, rounding an n th hype-cycle victory lap, promises to revolutionize virtually every application against which it's roughly patched. To a giddy mob of LinkedIn para-journalists it represents a step-change in efficiency, a rip-and-replace solution for content generation, an oracle squeezed from Wikipedia's digestive tract. To the techno-optimists, Generative AI holds emancipatory potential: a perpetual motion machine of free labor, a tool for decentralized operations, a clamorous alarm signaling the end of intellectual property.

This chapter argues that Generative AI, an assemblage of technology platforms and techno-ideologies, calls forth little substance in terms of social reorganization. Instead of enacting a new society, Generative AI emerges concurrently with an adolescent social order – a subtle, automatic social transformation that carries the through-line of postmodernity all the way to its conclusion. The postmodern subject's tendency toward atomization accelerates and completes as its atoms approach infinitesimal scale. A new social physics emerges, a dark world of vaporous non-beings who interrelate through ambience, pressure, diffusion, and asynchronous commingling. This social vaporreality exists prior to AI in every sense, functioning as the latter's socioeconomic preconditions, its technical substrate, and its placental subsistence medium.

Here lies both true emancipatory potential and existential threat: the twilight of the postmodern subject and the terminus of memory.

This chapter tweaks at lightning-speed, manically careening through a half-century of subject construction in order to aggregate the flows and systems through which contemporary vaporreality emerges. It then articulates the dynamics of vapor space within the context of the computational structures that harness vapor as a medium. The chapter culminates with the sociopolitics of the vaporous, including its aesthetics, endemic fascisms, performativities, and reproductive arrangements. It concludes by returning to the utopian energy of the AI hype cycle, channeling it toward the desubjective: heaven (Figure 1.1).

VAPOR:

a visible or invisible, uncontainable, uniform haze, mist, or cloud.

DIFFUSE:

to exteriorize, disassemble, distill, or deform.

EVAPORATE:

the metaprocess of diffusion, especially as a tendency immanent to some material or form.

DISPERSE:

once diffuse – to fill, to tend toward uniformity within a volume, spread, and expand out.

VAPOR SPACE:

the free interplay of fully autonomous processes cleaved from a subjective experience.



FIGURE 1.1

Album cover of “Evidence, Boards, Guitars.” Photo by Assaf Gidron. LCollective. Bandcamp Release (2021).

1 Postmodern Subject Mechanics

In dismantling the organism there are times one courts death, in slipping away from significance and subjection one courts falsehood, illusion and hallucination and psychic death.

— Deleuze and Guattari in *A Thousand Plateaus*

The following is by no means an exhaustive or even thorough account of postmodern subjectivity. It rather sets a stage with which to define by contrast a gradual, processual, ambient experiential turn from heterogeneous assemblage toward homogenous vapor, a turn that bleeds into the social, biological, economic, cultural, and political conditions of a pre-AI world. It uses philosophy, art, and social theory to make its arguments, not as statements of truth or a priori insights into reality, but rather as commentary filtered through the postmodern experience of its authors, commentary both descriptive and at times prescriptive of its regime. This first section can be distilled simply: *postmodernity is a process of evaporation, a sustained and accelerating psychosocial disposition that fragments, exteriorizes, and ultimately annihilates subjectivity, memory, and consciousness.*

In virtually all formulations, the postmodern subject resembles a vector field. A particle storm brews within a massive tensor, its chain reactions rip through dimensions extending through all domains of social and biological reality. A marine biome blooms within the deep-sea vents of the real, its complex, dynamic interplay of physical and environmental actors emerge into a situation. An unsteady verticality of geopolitical forces haphazardly assembles a piece of integrated neurobiological wetware that recursively consumes and reproduces its origin.

Or one could start here: the postmodern subject is not a solid, a scalar, a singleton, or a dipole. Such fixities smack of premodern, religious fantasy.

Instead, many formations of the postmodern subject tend toward the *dynamic*. These subject-formations move like deconstructable or partially deconstructable suspensions, determinable or partially determinable collisions. What distinguishes one account of postmodern subjectivity from another is less whether or not a given subject *can* be known, but rather the *extent* to which it can be known. Social construction *means construction*. Insert your litany of postmodern philosophers, critical race theorists, social critics, political activists, feminist scholars, media theorists, and historians of technology here: there almost always exist some dynamics that account for the partial, imperfect resolution of the complexity and chaos of postmodern being into discrete principles, laws, tendencies, and forms.

Further, these dynamics *constitute* being: postmodern subjects *are* processes. The type of process can vary from determined (e.g., Taylorist construction or biological essentialism) to “indeterminate intra-activity of

matter, meaning, and discourse”¹ (e.g., emergent forms and structures) to processes of alienation from unresolvable noumena. These processes operate on top of *data*, however material or transubstantial. Since the postmodern subject exists *as* process, it therefore enrolls its constituent processual data into itself, acquiring a heterogeneous communion of material, biophysical, sociocultural, political, economic, and transubstantial forces as its atomic substructure. Postmodernity consists in datafication; the analysis of its subjective condition should therefore emerge from a critical praxeology of data.

Data like sleep quality (time to sleep, time in REM, time in deep sleep, breathing rate),² cardiovascular information (heart rate, blood pressure, cholesterol level, blood oxygen level), blood type, activity stats (gym membership, eldercare motion tracking information, step count, walking asymmetry, double-support time, flights climbed,³ speed and intensity of motion, 1RM, ROM, time to recover), metabolic stats (blood sugar, weight, BMI, % body fat, available nutrition), nutritional identity, allergies (food or drug), exposure to pollution (lead/metals, smog, waste), vision stats, disability status, injury history, general medical history, history of addictions, genetic predispositions, medical insurance status, medical insurance premium, active medication list, psychological profile (disorders, typology), birthdate, birth location, pregnancy status, access to abortion, living family, dead family, history of abuse, physical proximity to family (incl. pets), race, heritage, family origin, ethnicity, skin color, nationality, immigration status, visa status, passport status, military status, religious affiliation, spiritual beliefs, relationship status, relationship structure preference, sexual preference, sexuality, gender, chosen pronouns, sex-assignment, household income after taxes, assets, bank account, liquidity, credit card account, available credit, credit score, home address, smart home login information (incl. automatic lighting, voluntary video and audio surveillance), home insurance status, temperature/humidity, air quality metrics (CO, radon, smoke), therms consumed, vehicle status, gasoline consumed, CO₂ units consumed (transit, shipping, vehicle), kWh (raw usage, EV charging, computation incl. training AIs, or mining crypto), internet connection, education history (incl. literacy), income tax at location of childhood, SAT/ACT/GRE/AP/IB or LSAT/MCAT score (and their international equivalents), ability to write a 5-paragraph essay, languages spoken (level of fluency), social class, employment history, 5-year plan, contractor/W2/part-time status (and their international equivalents), contribution to workplace metrics (net sales, quota attainment, growth rate, churn rate, lead response, ROMI, CPL, CAC, CLV, retention, traffic-to-lead, conversion rate, bounce rate, net income, net profit, gross profit, ratio, working capital, AR turnover, % accounts payable, MRR, new MRR, expansion MRR, churn MRR, ARPA, CES, NPS, employee turnover, R/e,

eNPS, training spend, career path ratio, revenue v. forecast, inventory turnover, scrap, ROA, RIT, CSAT),⁴ employee rank (ability to execute against KPIs, OKRs, sprint outcomes, etc.), email logins (professional and otherwise), communicational media accounts (WeChat, WhatsApp, Messenger, Signal), representational social media accounts (Facebook, Instagram, Weibo, Twitter, LinkedIn, Slack, GitHub, Pinterest), para-representational social media accounts (Finsta, Reddit, Discord, Telegram, 8Chan, Urbit), sexual social platform avatars (Tinder, Grindr, Hinge, Raya), political social media accounts (Parler, TruthSocial), workplace(s) personality(ies), personality profile (Myers-Briggs, Enneagram), astrological sign (sun, moon, rising), social associations (sports teams, clubs, organizations), hobbies, aesthetic preferences (movies, TV, music, fashion, art, books, etc.), parasocial encounters with the profusion and dilution of celebrity influencers,⁵ identity commodities (e.g., collections/collectibles, sloganwear bearing this or that solidarity acronym, this or that flag purchased through Amazon or Etsy accounts), entertainment sources (YouTube account, cable connection, Netflix, Hulu, Amazon, HBOMax, Disney+, and their international equivalents), political information sources (BBC, InfoWars, Jacobin, Al Jazeera, Substack, NPR/PBS, NYT, NBC, WSJ, and their international equivalents), political district (city, state, nation), personal voting history (if voting is applicable), volunteering history, local voting stats (turnout history), donation volume, donor class, reflection in advertising activation and impressions (representation in web traffic, reach, active/unique user base, disposition in posted content, ROI), participation in social media political awareness campaigns, stated and unstated political affiliations, and macroeconomic preferences ...

In many accounts, differences between two or more subjects can be measured or articulated less by contrasting each subject-as-process, but rather by contrasting the atomic elements, the datapoints, to which each subject-making process is applied. Each subject is atomized, isolated in their own particular array of constitutive particles.

The relationship between the subsurface atomic layer and subject-as-process through which the atomic layer is interpolated can take several forms. Three of many are elucidated below: the “Newtonian subject,” the “networked subject,” and the “shadow subject.”

1a Newton’s Vision [many → one]

One of many postmodern subject-classes: the Newtonian subject.

A Newtonian subject is deconstructible into the chaotic interplay of superstructural forces; the subject manifests at the collision point of incoming particles. This mode of subjectivity is at least partially determined, individualized by the stochastic complexity of simultaneously conflicting modes

of power, discipline, and control. Russian neofascist political philosopher Aleksandr Dugin degradingly refers to this iteration of the postmodern subject as “Newton’s vision,” a purely “materialistic, [...] technocentric and determinist” epistemology.⁶

Accounts of Newtonian subjectivity often arrive through the Hegel/Marx pipeline, sharply punctuated by Michel Foucault and Jean Baudrillard. This is likely obvious: the Newtonian subject-class is a materialist subject-class, one animated by the “modes of subjectification”⁷ of biopower and technopolitics. Its initial phase is the “disciplinary society,” the theorization of which Gilles Deleuze attributes to Foucault in the *Postscript on the Societies of Control*. The disciplinary society exercises its power downstream, through what Deleuze calls “enclosures,”⁸ or what Alexander Galloway calls “confinement [...] and] bureaucratic hierarchy.”⁹ Essentially, the disciplinary society governs through downstream institutional force. Mid-career Deleuze, with Félix Guattari in *A Thousand Plateaus*, speaks to downstream processes of subjection and subjectification – the capacities of power, capital, machines, or nation states to generate and regulate subjectivity itself – for example writing: “[in] effect, capital acts as the point of subjectification that constitutes all human beings as subjects” or “the nation is the very operation of a collective subjectification, to which the modern State corresponds as a process of subjection.”¹⁰

Late Deleuze counterposes disciplinary societies against control societies, whose more sophisticated Newtonian mechanics correlate to the advent of postmodernity.¹¹ While disciplinary societies host regulatory power within a centralized network of apparatuses (*dispositifs*), control societies disperse power through the bodies and minds of its citizenry. Downstream, institution-driven disciplinary societies have “two poles: the signature that designates the *individual*, and the number or administrative numeration that indicates his or her position within a *mass*,” but control societies have annihilated the “mass/individual pair,” interpenetrating the individual (the “*dividual*”) with “samples, data, markets, or ‘banks.’”¹²

From Michael Hardt and Antonio Negri via Foucault (to whom Deleuze also attributes the forecasting of the formation of control societies):

We should understand the society of control, in contrast, as that society (which develops at the far edge of modernity and opens toward the post-modern) in which mechanisms of command become ever more “democratic,” ever more immanent to the social field, distributed throughout the brains and bodies of the citizens. The behaviors of social integration and exclusion proper to rule are thus increasingly interiorized within the subjects themselves. Power is now exercised through machines that directly organize the brains (in communication systems, information networks, etc.) and bodies (in welfare systems, monitored activities, etc.) toward a state of autonomous alienation from the sense of life and the desire for creativity.¹³

Power is not a univocal force for any of the above theorists. Nor is it for Kimberlé Crenshaw, whose conception of intersectionality articulates power as a complex aggregation of overlapping sociopolitical, cultural, and economic factors – “where power comes and collides, where it interlocks and intersects”¹⁴ – coalescing to generate individuating experiences of oppression. Intersectionality is a powerful theory of the macrostructural chaos of control societies. There is no single *power* at whose behest control societies function. Instead, a host of divergent, even contradictory, forces harness the interpenetrative capacity of control: a tug-of-war upon the inner core of subjective experience. While Foucault denies that power “exhaustively determines a subject’s possibilities” but rather “specifies [its] relevant field of possibility,”¹⁵ Wendy Brown enunciates a fatalist trend in “poststructuralist formulations of the subject” that identify a subject “as not simply oppressed but brought into being by – that is, an effect of – subjection.”¹⁶ Control societies do control in part through assent, through identification, through “motivational force,”¹⁷ and through what Lauren Berlant calls “aspirational normalcy” (not unlike the present-day progressive causes of “normalization” and “validation”), which drives a “reinvestment in the normative promises of capital and intimacy under capital.”¹⁸

Fredric Jameson is one of many to describe a specific psychosocial effect of the sociopolitical tug-of-war at the heart of control societies, a principle or mechanism referred to hereafter as the evaporative principle. The evaporative principle is a diffusive motion toward the infinitesimal, the generic. The forces of subjectification proliferate, as do their tensions and contradictions. In turn, the subject determines itself through smaller and smaller alliances, allegiances, identities, negativities, and surrenders. These forces shrink, neutralize, and denature; they become fungible, dedifferentiated, atomic in the Epicurean sense. Borrowing from Luciana Parisi, through Benjamin Bratton, “the individuality of the subject is broken into endlessly divisible digits.”¹⁹ Or from Tiziana Terranova – the subject blurs as a “point of view” (a rational individual) and everts into a “neo-baroque darkly mirrored psychic interiority that keeps being affected by and folding in the outside.”²⁰

Expressions of the evaporative principle vis-à-vis Newtonian subjectification are frequent topics of contemporary social critique. For example, Gayle Salamon, in *Assuming a Body: Transgender and Rhetorics of Materiality*, unfurls a bracing critique of the “ossification of identity,” asserting that “a subject conceived as ‘intersectional,’ as cleanly joined layers or partitions of identity demarcated along separate axes of interpellation, bears little relation to any kind of lived subjectivity.”²¹ The ossification of identity in the realm of politics,²² gender and sexuality,²³ and race²⁴ has been observed to tend significantly toward smaller and smaller categories, greater specificity, overlap, and metastatic contradiction.²⁵ The generic itself acquires specific political vectors, folding over itself into further expressions of individualizing micropolitics. The social performance of “ossified identity” consists in no small part of economic production and consumption: aligning values

with a workplace, purchasing apparel or cosmetics or paramilitary tactical gear, collecting images of social icons, and consuming micropolitical media or microgenre art. The transition from archetype-driven marketing strategies to a swarm of complex, hyper-attuned ad trackers hanging on to every typed word, searched term, and attended second²⁶ captures the simultaneously increasing specificity and generality of these consumption patterns. A race develops between generative self-exteriorization and reappropriative control.²⁷ This is evaporation.

Pains must be taken to extract evaporation from a “teleological understanding of capitalism”²⁸ – for example, the “essentially dispersive”²⁹ character Deleuze attributes to neoliberal capitalism. This chapter attempts to torture this relationship, arguing that it is foremost a voluntary, elective postmodern consensus, applied at scale, that brings vapor space into existence. The cultural logic of capitalism, power, empire/imperialism – insert your posthumanizing vector here – flows parallel to or downstream of this logic, passively entranced by it, adjusting it, and tacitly propagating it around the globe.

For Deleuze, Guattari, and Jameson, the evaporative principle pushes toward the “schizoid” or toward “schizophrenia” – a term with variable connotations (all of which are essentially non-medical) rooted in Lacan. For Lacan, schizophrenia represents “a breakdown in the signifying chain, that is, the interlocking syntagmatic series of signifiers which constitutes an utterance or a meaning.”³⁰ Jameson uses the term to refer to an experience of pure or strict materiality (“pure and unrelated presents in time”³¹). Deleuze and Guattari, by contrast, use these terms to describe a subjectivity approaching the Plane of Immanence, the Real.

Always in a complex state of determination from sociopolitical or biophysical control – the Newtonian subject exists in the moment, at the coincidence of vectors; its history is inscribed and articulated in the present. Fredric Jameson connects this temporality to a “crisis in history”³² inscribed by power into a regime of cultural production that reduces subjective experience to a succession of commodified moments. Jameson predicted the granularized expressive modes of TikTok and Instagram well, as he did the strong emphasis placed by the wellness industrial complex on the *present* (mindfulness, intentionality, awareness practices), as time dissolves into generic ahistoricity or non-historicity:

If, indeed, the subject has lost its capacity actively to extend its pro-tensions and re-tensions across the temporal manifold, and to organize its past and future into coherent experience, it becomes difficult enough to see how the cultural productions of such a subject could result in anything but “heaps of fragments” and in a practice of the randomly heterogeneous and fragmentary and the aleatory.³³

The evaporative principle acknowledges the Lacanian schizoid, but shimmies away from any value-attribution to the experience of the

hyper-atomized subject. Vapor is vapor, there is no plane of lesser or greater reality accessible to a non-subject dissolving into infinitesima.

Like in Jameson, there is no history in vapor space – but no fizzy stream of presents either. Like in Foucault, vapor space involves dynamic systems – but the chaos of vapor dynamics far exceeds those of biopolitical construction. More on this later.

1b Networks and Emergence [one → many]

[...] I wondered as I descended, if it might not be that Urth is not, as we assume, older than her daughters the trees, and imagined them growing in the emptiness before the face of the sun, tree clinging to tree with tangled roots and interlacing twigs until at last their accumulation became our Urth, and they only the nap of her garment ...

— Gene Wolfe in *The Book of the New Sun*

Another of many postmodern subject-classes: the networked subject.

A more recent configuration of the postmodern subject came into vogue as mathematics and computation approached the ability to think larger and more chaotic structures. The networked subject is also a process, a becoming, an unfolding. Like the Newtonian subject, the networked subject exists amidst a substrate of forces. However, the networked subject is not subordinated to forces, but rather subordinated to relations: complex relationships of many simultaneous sizes and scales. The networked subject includes and acknowledges the objects within itself as emergent phenomena, and in fact, the networked subject itself is often merely another vertical layer of emergent phenomena stacking within a hyperdimensional plane. From Karen Barad: “not only subjects but also objects are permeated through and through with their entangled kin; the other is not just in one’s skin, but in one’s bones, in one’s belly, in one’s heart, in one’s nucleus, in one’s past and future.”³⁴

The core mechanism of the networked subject is *emergence*, a “reworking of causality” that is “dependent not merely on the nonlinearity of relations but on their intra-active nature.”³⁵ Emergence introduces complex irreducibility into the mix; the networked subject is not reducible to atomic forces nor is it strictly transcendental to them. It is merely mutually accessible to and with and as its community, environment, biome, universe.

Proponents of the networked subjectivity model also acknowledge Deleuze (via Spinoza) as a core reference point, e.g., the work of Bruno Latour, Manuel DeLanda, Isabelle Stengers, and Karen Barad. The neovitalist turn – to which one could attribute works like Jane Bennett’s seminal *Vibrant Matter*, Donna Haraway’s *Staying with the Trouble*, or Laura Tripaldi’s *Parallel Minds* – further leans into the decentering of the human in favor of the uncanny “vitality intrinsic to materiality as such.”³⁶



FIGURE 1.2

Still from Logan Bruni's *Chat Room*.

The networked subject is “ontologically one, formally diverse.”³⁷ While Newtonian subjectification tends toward atomization (infinitesima), the networked subject model takes infinitesima³⁸ as its literal point of departure. “Atoms Exist!”³⁹ shouts the first words of Stengers’s *Cosmopolitics II*. “Though I find Epicureanism to be too simple in its imagery of individual atoms falling and swerving in the void, I share its conviction that there remains a natural tendency to the way things are,” writes Bennett in the preface of *Vibrant Matter*.⁴⁰ While the networked subject model privileges the horizontal (rhizomatic, ecological), its underlying atomism bespeaks a vertiginous cascade of verticalities that escape dimensional confinement through the principle of emergence: “larger assemblages emerge from the interactions of their component parts, the identity of the parts may acquire new layers as the emergent whole reacts back and affects them.”⁴¹

Unlike the hegemonic forms taken by power in Newtonian subjectification (subjection), the networked subject model diffracts and distributes power into an anarchic array of forces, relations, and processes (“thing-power”).⁴² A key figure here is Latour, whose concept of the Parliament of Things “corresponds to a delocalization of politics. It can be characterized in terms that derive from Leibniz: ‘Not everything is political, but politics is everywhere.’”⁴³ Politics⁴⁴ itself, alongside the mechanisms of power and control, seems to bubble upwards from random perturbations in quantum foam, aggregating into larger and larger structures that consort, permeate, and interact with their generative, subdimensional quanta. Within the networked subject model, *agency is everything and agency is afforded to everything*.

But what if we loosened the tie between participation and human language use, encountering the world as a swarm of vibrant materials entering and leaving agentic assemblages? We might then entertain a set of crazy and not-so-crazy questions: Did the typical American diet play any role in engendering the widespread susceptibility to the propaganda leading up to the invasion of Iraq? Do sandstorms make a difference to the spread of so-called sectarian violence? Does mercury help enact autism? In what ways does the effect on sensibility of a video game exceed the intentions of its designers and users? Can a hurricane bring down a president? Can HIV mobilize homophobia or an evangelical revival? Can an avian virus jump from birds to humans and create havoc for systems of health care and international trade and travel?⁴⁵

Networked subjectification accelerates the evaporative principle through a strong focus on integrating non-anthropomorphic agency and object autonomy into ubiquitous hyper-networks of relations. The subject defocuses into ambiguous assemblage amongst/within the entire universe of relations from which it emerges and within which it slips and slides around. Everything connects to everything else, orders of magnitude or separation lose their intensity – for Karen Barad, the world is generated in real-time, “reality is an active verb”.⁴⁶

Events and things do not occupy particular positions in space and time; rather, space, time, and matter are iteratively produced and performed. Traditional conceptions of dynamics as a matter of how the values of an object’s properties change over time as the result of the action of external forces won’t do. The very nature and possibilities for change are reworked.⁴⁷

While the networked turn largely focuses on physical objects, bodies, things, agents, and Haraway’s *critters*, it historically neglects digital objects. Digital objects arrive onto the scene via Gilbert Simondon’s *technical objects* and are fully realized through Yuk Hui. From Hui: “an object is meaningful only within a network”⁴⁸ and through Laura Lotti: “digital objects not only individualize, developing and integrating an associated milieu, but also individuate through their capacity to dynamically restructure their relations with other objects, systems, and users in their associated milieus.”⁴⁹ The digital world has expanded into full integration with the physical world and digital objects coexist with subjects of multiform materialities and forms within hybrid assemblages or milieus. Hito Steyerl writes “The internet has gone offline. [...] As Minecraft Redstone computers are able to use virtual materials for calculating operations, so is living and dead material increasingly integrated with cloud performance, slowly turning the world into a multilayered motherboard.”⁵⁰

The contemporary art world has embraced the network subjectivity model wholeheartedly. This intensified in the 1990s (wherein art became “a state of encounter”⁵¹) and has since metastasized into an almost hegemonic ideological platform within creative production more generally. Take, for example, strong trends toward the ecological (Agostino Di Scipio’s *Audible Ecosystems*, Ash

Fure's *Etudes from the Anthropocene*, Helen Mayer Harrison's work with strawberries, Ai Weiwei's *Fukushima Art Project*, Pierre Huyghe's *Zoodram 5 (after "Sleeping Muse" by Constantin Brancusi)*, Olafur Eliasson's *Green River*, Matthew Barney's *Redoubt* and the relational assembly (Kanye West's performance at the BRIT Awards in 2015, Rirkrit Tiravanija's *pad thai*, Tania Bruguera's *Surplus Value*, Johannes Kreidler's *Outsourcing*, Demna Gvasalia's antifashion projects at Vetements and Balenciaga, Ruangrupa's *lumbung* at Documenta 15 [inviting "community-oriented collectives, organizations, and institutions from around the world to practice lumbung with each other and work on new models of sustainability and collective practices of sharing"]⁵² ... the list of trends and artists becomes so inclusive as to contain the virtual entirety of the last thirty years of institutional cultural production.⁵³

An insurgent domain within the art world that throws itself with even greater abandon into multiple axes of relationality (physical, digital, ecological, sociopolitical, economical) is blockchain-based art. In neovitalist cladding, Martin Zeilinger asks "what might become possible when artworks gain agency?"⁵⁴ The answer bears the mark of the evaporative principle: Zeilinger asserts that the blockchain, specifically smart contracts, affords new dimensions of agency to an artwork by placing it within a universe, an empty box, within which it is capable of "reproducing," "evolving," and "dying."⁵⁵ Not only is an artwork liberated from one or many artists, its commercial ownership is "abstract[ed...] from any referent."⁵⁶ Moreover, it is even freed from consumption altogether, existing autonomously⁵⁷ as an executable within a blank and fungible container. (More on object-autonomy in the next section.)

Ryan Kuo drives home the evaporative ideology contained within the above:

Unfortunately, the premise of an NFT is that there is never not something. Its intention is to seal the existence of the something that has a value. As a result, there is no longer nothing. [...]

An NFT offers a generic something: some thing, neither here nor there, which exists in order to escape being worthless (a born loser). It escapes to the address it is given, and its value is held precisely there.⁵⁸

Web3 stans hype up the chain of abstract, pure relationality as a break with existing modes of social organization: an emancipatory, decentralizing rupture hewn in the fabric of power. However, Web3's "decentralizing" motion appears instead merely diffusive. What is a blockchain, or moreover what is a tree of blockchain branches and breaches, apart from an empty array of agencies and exchanges in which identifiers are subordinated to relations? What is on-chain cryptocurrency apart from the further atomization and abstraction of value through relativistic, ecstatic, real-time determination? What contemporary mode of social exchange is so explicitly ecological in terms of its cost, subordinating relations further to the resources they consume in order to trade, express, commune, or create? Decentralization is a reorganizing action, whereas evaporation is diffusive – evaporation is a profusion of abstractions that annihilates order at every level.

**Evaporation is a profusion of abstractions
that annihilates order at every level.**

1c Thing Mode [one:many → many]

“There is something out there.”

— Kiefer Sutherland as Nelson Wright in *Flatliners*,
as sampled by Burial in “Loner”

Networked subjectivity approaches an idealism of the material: nonhuman, nonsubjective agents constitute reality through their relations. Conversely, shadow subjectivity approaches a nominal “materialism” of the ideal. Nonhuman, nonsubjective agents acquire additional domains of autonomy and removal from the ever-diminishing subject. In the networked subjectivity model, the subject emanates from quanta concurrently with the world and co-constitutes the world in relational harmony with a chaotic choir of things, forces, and ephemera. In the shadow subject model, the subject is thrown into a quiet, indifferent, alien landscape of unknowable, untouchable, dark forms. The shadow subject ponders “a manifestation of the world” that is “anterior to any human form of the relation to the world [...]”⁵⁹ While Quentin Meillassoux’s thunderclap critique of subject-object correlation (the impossibility of “consider[ing] the realms of subjectivity and objectivity independently of one another”)⁶⁰ may have pulled the trigger on many accounts of shadow subjectivity, it is the appropriation of his work by Object-Oriented Ontology (OOO) that animates and maintains this model in the social and cultural sphere.

For Graham Harman, an “object” simply means anything – be it natural or cultural, physical or ideal, material or semiotic – that cannot be reduced either downward or upward, which means anything that has a surplus beyond its constituent pieces and beneath its sum total of effects on the world.”⁶¹ Harman argues that to the networked subject (e.g., Bruno Latour’s Actor-Network Theory), “there are no objects” – only relations.⁶² The networked subject model constitutes things through their actions, but “if objects are autonomous, they must be more than actors.”⁶³ Objects exist totally independently to the shadow subject.

Shadow subjectivity is a negativistic exercise. As Timothy Morton writes, “since the human subject is no longer the guarantee of why things exist, it must be the case that what is special to human subjectivity – that it correlates things to itself – is not so special after all. Perhaps everything is at it.”⁶⁴ And then: “Phenomena such as human subjectivity [...] occupy small regions of this larger space of interobjectivity.”⁶⁵ The shadow subject remains a lattice, a matrix, but one inscribed *negatively*, through the alienation between the sensible and the real. Harman defines this principle as a relational model of *withdrawal*: “the real problem is not how beings interact in a system: instead, the problem is how they withdraw from a system as independent realities while somehow communicating through the proximity, the touching without touching, that has been termed allusion or allure.”⁶⁶

The shadow subject's experience is alien, strange, weird, and often queer. Katherine Ngaio Connell's thesis *Objects in Human Drag: The Queerness of Object-Oriented Ontologies* contends that "unknowability and elusivity, emergence and withdrawal, mimesis and otherness are not only object-oriented responses to anthropocentric categories that regulate thing-being, but are queer responses to identity categories that objects in drag produce."⁶⁷ Sara Ahmed is one of many to pioneer this through-line in *Queer Phenomenology: Orientations, Objects, Others*. Ahmed's queer phenomenology brings "objects to life in their 'loss' of place,"⁶⁸ describing an "alien" encounter between a doorknob and a hand ("the hands can easily be alien objects" as well):

How did you get here? How did I come to have you in my hand? How did we arrive at this place where such a handling is possible? How do you feel now that you are near? What does it do when I do this with you? To re-encounter objects as strange things is hence not to lose sight of their history but to refuse to make them history by losing sight.⁶⁹

Artist Jes Fan's work directly engages with the autonomous play of charged chemicals, metaphorically engaging with material flux, queerness, and designification. "I pour silicone inside the vessel. Then I inject melanin, testosterone, and also estrogen, and also fat. [...] Once they're removed from the body, the site of identification, like, 'What are they?'"⁷⁰ they ask.

Strangeness can yield to horror,⁷¹ and horror (self-conscious alienation) is another process through which the shadow subject is constructed. Timothy Morton's conception of the hyperobject – "things that are massively distributed in time and space relative to humans"⁷² (think of global warming as an iconic hyperobject – too large to truly understand, proximal enough to inhabit) – elicits "a terror beyond the sublime, cutting deeper than conventional religious fear."⁷³ The subject shrinks in the midst of the raw material, the ancestral, the ancient, the deep future. Andrew Strombeck notes that "Graham Harman, Timothy Morton, and Eugene Thacker cite H. P. Lovecraft, asserting that the original weird writer's cosmic indifference dovetails with their concerns about inaccessible materiality."⁷⁴

A surprising, if controversial, contributor to what this chapter calls shadow subjectivity is Nick Land – another member of the "Cthulhu Club." Land predicts Morton's hyperobject by endlessly cataloging its subjective experience:

You can't stop what can't be stopped.
You can't touch without being touched.
The horror.⁷⁵

The evaporative principle itself is taken from Land, stated literally in *No Future*: "amongst the strobes, artificial cool, and inorganic attack beat, dark-side K-war machinery resiliently persists [...] where promiscuous anorgasmic sexualities slide across tactile space [...]" one "tracks the passage of

evaporating subjectivity on the zero-degree plane of neuroelectronic continuity.”⁷⁶ However, Land’s evaporation goes nowhere; there is no affirmative dimension to vaporization as discussed later in this chapter. Mere annihilation, unblocking the ambitions of this or that technodemon.

Paraphrasing Land heavily: a subject evaporates in the experience of singularity. One might forgive the block quotes, as the writing style itself articulates a subject evaporating in the face of things dramatically in excess of themself at all levels:

Techno-commercial interaction between planet-scale oceanic-navigation and zero-enabled mathematico-monetary calculation mechanically singularises modernity or Sol-3 capitalism as a real individual: a geo-historical nucleotelic system, based upon regeneratively techno-propagated concentrational scale-economies, and tending to immuno-securitised self-identification as hyper-mediated global-micro-technic command-control. It arms-races smooth cultural decoding to flat-schizophrenisation against episodic social recoding to hierarchical robo-tism and algorithmic control, coupling the meltdown of organization into the jungle with its restoration as virtually totalised global order.⁷⁷

In *The Dark Forest*, the second installment of Cixin Liu’s science fiction trilogy *Remembrance of Earth’s Past*, Liu explains away the Fermi paradox through a condition of universal paranoia. The quality of a given alien civilization’s sentience is attributed directly to their ability to hide themselves: “[t]he universe is a dark forest,” Liu writes, “[e]very civilization is an armed hunter stalking through the trees like a ghost [...]. The hunter has to be careful, because everywhere in the forest are stealthy hunters like him.” Given the raw contingency of the universe, any nascent civilization may develop into a threat, so if the hunter “finds other life [...] there’s only one thing he can do: open fire and eliminate them.”⁷⁸ In *The Mist*, written during the last decade of the Cold War, Stephen King describes a deep, cloaking fog descending upon a small town in Maine.⁷⁹ Like the cloaked threads in the *Dark Forest*’s universe, the mist is home to unknown, violent horrors (tentacles, insect-like creatures, colossal monstrosities), and the residents of the small town barricade themselves inside a supermarket to keep the mist at bay.

The shadow subject self-sustains in detente with the unfathomable world of objects – alert and inquisitive, either compelled by queer encounter with the alien or paranoid to sudden movements or changes that could signal the shadow subject’s immediate extinction. Of the three subjectification models proposed here, the shadow subject is the closest to vapor, consisting in the compulsive accounting of the remaining components that remain tangibly and discretely itself (Figure 1.3).

**FIGURE 1.3**

Still from Logan Bruni's *Chat Room*.

2 Vapor Space [one (→ many) → none]

Human and nonhuman *Users* are positioned by The Stack (perhaps rudely) as comparable and even interchangeable through a wide-ranging and omnivorous quantification of their behaviors and effects. The preponderance of data generated by *Users* and the traces of their worldly transactions initially overtrace the outline of a given *User* (e.g., the hyperindividualism of the quantified self movement), but as new data streams overlap over it and through it, the coherent position of the *User* dissolves through its overdetermination by external relations and networks. The *User's* enumeration is first a grotesquely individuated self-image, a profile, but as the same process is oversubscribed by data that trace all the things that affect the *User*, now included in the profile, the persona that first promises coherency and closure brings an explosion and liquefaction of self.

— Benjamin Bratton in *The Stack: On Software and Sovereignty*

Arrival in vapor space: atomized, dedifferentiated, decorporealized, desynchronized. Loose mist of subcontracted cognitive minutiae. Cleaved from the noumenal but also cleaved from the products of one's own consciousness, thought-products that emanate upward like little sperm, autonomous in their own existence and relations. No-time, zero-time, no-present, no attention, no manifestation, no presence: steam from the body-brain through the eyes and ears commingling with everything ever. Far less than the "dissolution of the metaphysical concepts of reality,"⁸⁰ vapor space exists anterior

to and simultaneous with reality (choose your definition), a hyperdimensional extension of reality, an exit vector for both human consciousness and its reflexive self-construction as a subject. Thanatropic regression – via Negarestani: “the organism (as an index of interiority) temporarily extends from the inorganic state yet it is energetically driven ... to its precursor exteriority by flexing its contraction back to the inorganic”⁸¹ – empowered and amplified by data.

Vapor space, a psychosocial product of postmodern experience (itself a co-product with and of capital, with and of societies of control),⁸² is unevenly distributed across the globe. It co-exists with all flavors of postmodernity expressed above, as well as innumerable other modes of described contemporary existence, but vapor space tends toward ubiquity. Vapor space is not just real but has been among us for some time. Vapor space automatically, unthinkingly enacts AI. It scopes AI, it limits AI, it holds and hosts AI, it expresses itself as AI – not as a revolutionary object but simply as a natural and neutral automatic predisposition.

What incredible hubris it is to assume that the apotheosis of modern computation would assume a form resembling human consciousness, as opposed to sharing the mechanistic visage of capital.⁸³ What hubris it is to position AI as the inheritor of subjectivity as opposed to an indifferent, local expression of the subject’s gradual diffusion and destruction.

2a Vapor Capital

SRNICEK:

Are machines always on the side of capitalism?

Or rather, is capitalism always on the side of machines?”

NEGARESTANI

“[...] I think capitalism is on the side of machines.

— Nick Srnicek and Reza Negarestani in conversation

Capital itself is not immune to evaporation. Upstream or downstream or both, vapor drives through all walls, systems, and structures. Nick Srnicek, including his work with Alex Williams and Helen Hester, describes a recent transition in capitalism that can be mapped onto the evaporative principle. Not the end of capitalism per se (e.g., McKenzie Wark⁸⁴), but a transition from *neoliberal* capitalism (distributed, outsourced, modular) to *platform* capitalism (social/micropolitical/biopolitical hosts, built on data, sustained through network effects⁸⁵). While Srnicek articulates a process of recentralization characteristic to platform capitalism (e.g., the prominence of MAANG – Meta, Amazon, Apple, Netflix, and Google – in terms of market capitalization and monopolistic dominance), there is also a simultaneous process of diffusion. The drive to total monopoly, the drive to hold and sustain the entire world, is of course also a drive toward dedifferentiation. Srnicek calls this drive the

What incredible hubris it is to assume that the apotheosis of modern computation would assume a form resembling human consciousness, as opposed to sharing the mechanistic visage of capital. What hubris it is to position AI as the inheritor of subjectivity as opposed to an indifferent, local expression of the subject's gradual diffusion and destruction.

“convergence thesis: the tendency for different platform companies to become increasingly similar as they encroach upon the same market and data areas.”⁸⁶ The difference between Meta, Amazon, and Google – all data aggregators, ad-sellers, and digital marketplaces – blurs into mere UX design choices, if that.

Srnicek underlines the ramp-up to platform capitalism as the rise and fall of neoliberal “lean platforms.” The lean platform reflects the application of the evaporative principle to corporate structures: a lean platform is a corporation that is essentially asset-less, so subcontracted to infinity that there exists almost no overhead apart from a name and perhaps a few lines of proprietary code. For Srnicek, the reconsolidation motion from neoliberal leanness to platform capital bulk marks a “concentration of ownership.”⁸⁷ Breaking from Srnicek, this chapter argues that the evaporative principle continues to erode ownership and property as traditionally conceived. Property is a relation, it does not really exist in relationless vapor space. Intellectual property, whose death at the hands of Generative AI is alleged by boomers everywhere,⁸⁸ has died a long time ago – not even at the hands of the digital (e.g., the DRM wars of the nineties and aughts), but merely through the abstraction of the principle of property itself due to the implosion of any and all localizable owners (e.g., the chains of platform technology leveraged to produce and consume creative work). Despite the trend toward centralization, there exist such rich and chaotic interiorities to spaces like Alphabet (see a recent *Business Insider* list⁸⁹ for the unreal polymorphism contained inside Google’s holding company) that attributing concepts like hegemony or monopoly to these organizations feels subtly incorrect. Certainly, these companies *own* “the infrastructures of society,”⁹⁰ but as each company lays claim to the world, the ownership of a world by a world feels tautological, the subjugation of any and all relations to complex, diffuse, and arbitrary technopolitics feels like an *intensification* of Srnicek’s leanness.

Each of these major platforms typically contains their own, if not many of their own, satellite corporations that develop AI-adjacent technology,⁹¹ now including AI’s hardware dependencies by disrupting and diffusing Nvidia’s GPU monopoly (Apple, Meta).⁹² Like the MAANGs themselves, there exist few distinguishing characteristics amongst the AIs therein constructed. Instead, we approach a convergent and dedifferentiating AI through evaporation on all sides (Figure 1.4).

2b Natural Language Models

Much like how Srnicek’s *convergence thesis* describes how massive technology multinational corporations gradually dedifferentiate as they grow, there exists a similar dedifferentiation motion at the level of the largest current AI systems. OpenAI’s GPT-4, the Beijing Academy’s WuDao 2.0, and Google’s BERT resemble each other not just in terms of scope (natural language modeling, multimodal and multimedial inputs and outputs, common applications) and massive corporate co-sponsorships and partnerships (thirty-plus (!) for

**FIGURE 1.4**

Still from Logan Bruni's *Chat Room*.

WuDao 2.0, including Alibaba⁹³), but also in terms of architecture. All three career along convergent paths, outpacing each other here and there in terms of this or that refinement to a common deep learning architecture. The creator of WuDao 2.0 (as of the time of writing this chapter, still the largest natural language model in the world), Tang Jie, speaks to a process of competitive discovery of the “Mixture of Experts” (MOE) computational principle between his team and the team at Google Brain:

Actually, last year when Google published MOE, we actually already have the code. We also want to publish that paper, but Google released that paper. We have no chance to publish it. So, we actually, we developed the open-source code, we call it FastMoe. So, the code is totally open source on the website and each much faster than the MOE by Google.⁹⁴

The underlying architecture of WuDao and BERT and GPT-4 is the transformer, an innovation in deep learning technology developed by a team at Google Brain in collaboration with the University of Toronto.⁹⁵ Transformers represent a breakthrough in the ability for deep learning systems to handle ordered, sequential data (e.g., sentences) in efficient, parallelized ways.

The training process of a large natural language processing transformer involves the prior assembly of massive webs of associations: embeddings. Embeddings correlate content similarity with proximity: within n -dimensional vector space, $\mathbf{Z}$ content is abstracted to an n -dimensional vector, and z_0 is related to z_1 by virtue of proximity. The number of dimensions within an embedding is a dynamic product of the possible values the system is

capable of producing (Google’s developer course suggests a reasonable benchmark is $\text{dimensions} \approx \sqrt[4]{Z}$).⁹⁶ An embedding thereby defines difference and meaning not as a function of *content* but as a function of *volume of content*. Embeddings are often repurposable or fungible media, many of which are free-to-use for applications in various deep learning projects. These embeddings are constructed through massive web-scrapes, for example, of Wikipedia,⁹⁷ using complex data-mining tools.⁹⁸ There exists a growing universe⁹⁹ of embeddings, each of which constitutes a representation of the world within which a given content element z_x exists in fixed relationships of difference with all other elements.

Transformers can leverage one or several embeddings in order to accomplish tasks like language translation. For example, translating z_x from English to French involves accessing the vector of z_x within an English embedding and correlating it to the probable positioning of o_x within a French embedding. The ability to correlate individual elements within two hyperdimensional vector spaces is legacy technology – what transformers bring to the table is the ability to translate sequential structures, like sentences. Transformers abstract complex sentences into relations, *sequential* relations, deriving the context of a given sub-element of a prompt or training data from the encoding of its sequence position vis-à-vis all other elements.

Transformers afford sequence order a central determinative role in determining context and interpolating information. Like in an embedding, the content itself is subordinated to location – in this case the positional encoding of an index (itself typically an integer reference to a vocabulary dataset). In doing so, transformers encode meaning as a relationship between spatial (embedding) and temporal (positional) functions.

While the transformer’s encoding process happens simultaneously, passing the entire input sequence as a collection of tokens and positions through an embedding, the transformer’s decoding process involves an autoregressive loop. Each successive output from the decoder is passed to its input in order to generate the next output. Oftentimes this process involves feedback from previous inputs as well, or from combinations of different inputs (e.g., beam search). Despite a gradual trend toward parallel processing (e.g., in the transformer’s encoding process), autoregression remains a critical temporal structure to the transformer as it does to many deep learning networks and algorithmic processes more generally.

The transformer itself is a convergence phenomenon within the broader field of AI. Far from a generic intelligence, the term “AI” has come to refer to a narrow ideological plank. From AA Cavia and others, synthesized by Reza Negarestani,¹⁰⁰ the first of these ideologies is “Turing Orthodoxy,” “a reduction of the computational to the machinic.”¹⁰¹ Turing Orthodoxy refers to the dogma that every problem can be solved through Turing machines¹⁰² (through axiomatic logic). Turing Orthodoxy is based in part upon two opposing but fungible epistemologies,¹⁰³ “computational functionalism” (the idea that the brain is a computer and thought is intrinsically computational) and “computational

realism" (the idea that the universe, through its exercise of discrete physical principles, is a computer or bound to axiomatic, computable principles). A second ideology underpinning narrow AI is what Negarestani and others call "New Empiricism" – a Silicon Valley epistemology through which data *itself*, simply by virtue of sufficient quantity, is a generator of meaning. "New Empiricism tries to make theoretical scientific research redundant" because its conclusions are possible through data, through "inductive analysis"¹⁰⁴ alone. A third plank – one very much at the center of the other two planks – is "Hard Naturalism," which Negarestani associates with Daniel Dennett. Simply put, Hard Naturalism asserts that "sheer brute recursive processes can tend toward artificial intelligence."¹⁰⁵ The ideological basis for "narrow AI," within which the transformer idly converges, is – of course – the evaporative principle: the exteriorization, inscription, and subordination of experience, intelligence, and consciousness to the 0-degree plane of neuroelectronic continuity.

2c Position and Autoregression in Vapor Space

Data is the antithesis of narrative.

— Joshua Citarella in *Raw Eggs, Pink Pills, and Embodied Identity*

The concepts explored above vis-à-vis transformers are *inherited* from vapor space:

Position versus **Difference**: Vapor space subordinates the material or phenomenal to the indexical. In vapor space, tokens or indices refer to positions within this or that container: in the instance of the transformer, it can refer to a relation between a phenomenal entity and a position within a database, sequence, embedding, etc. Such a relation need not be confined to a single container, but can consist of multiple container-relations (e.g., the relationship between vocabulary dataset, positional encoding, and language embedding within a transformer).

Indexification is more abstract than simple representation (e.g., digital representation). Representation is a compound play of difference between signified and signifier. In vapor space, an entity exists insofar as it is already indexed. There is no relationship between signifier and signified apart from the most arbitrary mechanics (e.g., alphabetical order or hash value). Indexification necessarily involves planes of dedifferentiation: an index is an index. A poem can be mapped into a relation with a car through proximity among one or many embeddings. Vapor space provides a vehicle for the translation of anything into anything else through annihilation. Vapor space provides Jacques Derrida with transcendental signification not through a process of opening into new, transcendental planes, but rather through the closure and constriction of experience through the evaporative principle into planes of universal exchange.

Autoregression and **Sequence**: Vapor space consists of autoregressive machines. Autoregression is the main mechanism of motion within the

substrate of indexed space. Autoregression situates a linear relationship between dependency (consumption) and inference (production).

An autoregressive machine is a dimensional contraction of the autopoietic or allopoietic structures that define Deleuze and Guattari's machinic assemblages as they disperse through vapor space. Instead of a networked, organic, dynamic assemblage, an autoregressive machine is a crawler, a Turing machine, a process that ingests content and outputs a next step. Unlike Guattari's autopoietic machine (which reproduces itself), an autoregressive machine produces nothing, since content within indexed space is already preinscribed with instruction. Unlike Guattari's allopoietic¹⁰⁶ machine (which produces new entities), there is nothing in vapor space that is new.

For strictly autoregressive entities, there exists no element of memory – only a model of translation from ingestion to instruction. For a strict autoregressive machine, time does not exist, nor sequence number, iteration count, loop level, etc. Time is thrown up while the machine moves, but requires an external observer to identify it and catalog it as such. Vapor space is not absolutely determined, however. Like in Turing's halting problem, there is no absolute, determined path to an autoregressive machine within vapor space from its initialization. However, when the autoregressive machine reaches a terminating character, it dies absolutely. Death is announced only through the translation of the penultimate step (e.g., sentence terminator), and the autoregressive machine marches resolutely toward its own annihilation from there.

When an external observer catalogs the movements of an autoregressive machine, a sequence emerges. Sequences, by virtue of containment along the surface of indexed space, contain no meaningful differentiating characteristics and in fact every content element within indexed space is already a sequence (e.g., a vector, a tensor). A general characteristic of vapor space: every sequence exists relative to every other sequence via arbitrary positional relationships. Vapor is hard to contain and moves fluidly through even solid boundaries.

2d Vapor Aesthetics

[GPT] Chat did not change the nature of thinking and writing, thinking and writing had already changed. That's why we have GPT Chat.

— Mohammad Salemy, Instagram Post

(Re: ChatGPT): "It's a lying machine!"

— Dasha Nekrasova, Red Scare

The autoregressive machine, chained loosely in abstract sequences, has a central position in vapor aesthetics. Vapor space is internally nonaesthetic; there are no

discrete objects or structures in vapor space nor are there perspectives or contexts with which to generate aesthetic relations. However, the arc toward vapor – as represented by the evaporative principle, as perceived from outside of vapor space – has injected itself visibly into contemporary modes of social expression.

Vapor aesthetics – or rather the aesthetics of vaporization – involves fungible, wholly consumable vehicles through which a value-neutral, indifferent sequence of ingestion and translation proliferates. Certainly the most obvious example of this is the meme, the “entire visual paradigm”¹⁰⁷ of the last twenty years of social performance. Definitions of memes focus less on content, which is so variable as to include the virtual entirety of digitally representable media, and rather on the velocity with which a meme is reconsumed and transformed.¹⁰⁸ While distinct strata of memes are articulated in terms of format (e.g., the “galaxy brain,” the “is this a pigeon”), the formats themselves are equally fungible and mutually consumable. Memes are sufficiently dedifferentiated that it is more possible to speak of meme-space¹⁰⁹ or a single meme monad than it is possible to identify a single stratum for analysis. This tendency (toward diffuse space or toward monad) is of course a characteristic mark of vapor space.

Mememes have already been endlessly theorized in a number of ways: from social and political impact, their relationship to image culture, their uncanny resistance to monetization as well as regulation and copyright claims (a characteristic of vapor space). Mememes are autoregressive structures.

Postmodern cultural production in general tends toward autoregressive structures. The word “generation” in the term “content generation” does not refer to the *generative* act of making *new content*, but rather the subordination of content to its production. The term “generation” increasingly denotes the consumption-reconsumption action of the autoregressive process. For example, consider the autoregressive sequence through which a news report travels from reporting, commentary, reaction commentary, meta-reaction commentary, and recap commentary – a motion epitomized by the live-streaming industry, which is almost entirely sequential meta-commentary¹¹⁰ presenting not only *n*-order experiences, but simultaneous first-, second-, third-, even fourth-order sequences of reconsumption.

Artist Joshua Citarella makes the point that as both margins and price-points for creative work shrink, so does the “time-dimension” of the work itself: one may only need to sell one \$100K time-invested work per year, but one needs to sell 1,000 \$100 bedroom art pieces, or 10,000,000 \$.01 micro-experiences. Citarella jokes that artists become podcasters¹¹¹ due to the need to generate these granular products, and in turn much of those products become meta-commentary on work, the creative process, or merely live-streaming one’s entire life.¹¹² This trend toward oceanic volumes of cultural microproducts can be associated with run-of-the-mill neoliberal prosumerism, but there’s more here than meets the eye. While classical accounts of neoliberal prosumerism¹¹³ integrate the subject as an active participant in a joint consumption-production process (e.g., the customization of products,

creative work hosted on digital platforms, etc.), in fact the subject has become more and more *passive* as both consumer and producer, a receding witness to a spectacle of fully autonomous consumption-production that occupies more and more of the subject as a substrate or pass-through medium. Hito Steyerl describes the author-function of spam, proposed here as another major vapor aesthetic: “a performative chaos in which actors, consumers, spam and service workers become indistinguishable. The linear and teleological progression of history [...] is discontinued. [...] People are being included into the world of spam and turned into potentially edible matter.”¹¹⁴ Machine perception supplants human perception; calculation supplants sensation.

ChatGPT provides another great, if obvious, example of the shrinking human-in-the-loop within production-consumption chains: the labor investment in cultural production is not necessarily becoming smaller but rather the share of labor directly performed by humans is being increasingly offset to computation. Fully autonomous chains of cultural consumption-production, with human observation trending toward zero, already circumnavigate the internet in the forms of bot-generated YouTube channels,¹¹⁵ algorithm-gaming Spotify audio,¹¹⁶ and artificially generated and maintained websites. Revenue circulates arbitrarily from platform to bot to hosting service to SaaS module, touching humans here and there but largely sticking to itself.

Some elements within a given autoregressive chain resist outright overwrites, persisting as hauntings and ghosts. In *Ghosts of My Life*, Mark Fisher defines haunting as “... a failed mourning. It is about refusing to give up the ghost or [...] the refusal of the ghost to give up on us.”¹¹⁷ The Generative AI community has already circulated memes around resistant strata within tools like Stable Diffusion and DALL·E MINI, like *Loab* – a phenomenon-slash-creepypasta of a dreary-looking older woman who manifests in numerous prompts.¹¹⁸ In Mark Fisher’s interview with the musician Burial (Fisher’s icon of hauntology), Burial comments, “there’s nothing worse for a human being than to see a face where it doesn’t belong.”¹¹⁹ Seeing a face where it doesn’t belong may be the defining characteristic of vapor aesthetics: compulsive apophenia. Conspiracy theory, for example, has enjoyed abundance under the regime of vapor; power idly allows for the proliferation of random chains to assume this or that manifestation for periods of time before dissolving back into mist.

If there’s any trend-forecasting near the end of this chapter, it is this: vapor aesthetics will likely be contained to the experiences of passive observers bearing witness to fully autonomous cultural production and “refusing to give up the ghost.” The near future of human creative practice may involve little more than cloud-reading, storytelling about patterns in the mist (Figure 1.5).

**The near future of human creative practice may
involve little more than cloud-reading,
storytelling about patterns in the mist.**



FIGURE 1.5

Still from Logan Bruni's *Chat Room*.

2e Hyperdimensional All-Human Orgy

Are you ready for Brain Transparency?

— World Economic Forum 2023

The subject enters vapor space through one or many processes of evaporation: its determination through smaller and smaller forces, its subordination to network relations, its shrinking negative inscription against alienating noumena. In vapor space, there are no subjects: only autoregressive diffusion processes within a hyperdimensional plane of dedifferentiated quanta. However, as noted earlier, vapor space has not yet saturated reality and is therefore apprehendable as phenomena.

The inscription of subjective experience onto shared, neutral, public axes opens up new possibilities for entanglements between individuals. The emanating periphera from evaporating subjects interpenetrate and commingle as telecommunications technologies develop and globalize. Luciana Parisi's *Abstract Sex: Philosophy, Biotechnology, and the Mutations of Desire* begins with this proviso: "[in] the age of cybernetics, sex is no longer a private act practiced between the walls of the bedroom."¹²⁰ Indeed, this section asserts that sex and reproduction have undergone a comprehensive transformation under the regime of vapor.

In fact, it is precisely a process of human cybersexual¹²¹ reproduction at the highest scales that has produced the hyperdimensional lattice of quanta of vapor space. Borrowing further from Parisi:

Primarily sex is an event: the actualization of modes of communication and reproduction of information that unleashes an indeterminate capacity to affect all levels of organization of a body – biological, cultural, economical and technological. Sex is a mode – a modification or intensive extension of matter – that is analogous neither with sexual reproduction nor with sexual organs. Sex expands on all levels of material order, from the inorganic to the organic, from the biological to the cultural, from the social to the technological, economic and political. Far from determining identity, sex is an envelope that folds and unfolds the most indifferent elements, substances, forms and functions of connection and transmission.¹²²

Parisi's abstraction of sex into inorganic domains invites new and more complex reproductive relations into the scene. Parisi is not just invoking classical disciplinary biopower (e.g., the "disciplinary logic of industrial capitalism" which specifically involves top-down reorganizations of sex and reproduction¹²³) but further, the "*real subsumption* of all machines of sex actualized through biodigital modes of information transmission"¹²⁴ as exercised under postmodern control societies and beyond. As technology moves to capture and decode the biomechanics of reproduction on smaller and smaller scales, reproduction changes from the repressive structures of disciplinary societies to the modulatory structures of control societies (wherein the "autonomy" of the variables of reproduction are "captur[ed], produc[ed], and multipli[ed]")¹²⁵ to full anarchic autonomy and independence from the subjects of reproduction.

Reproduction, as far as this chapter is concerned, is the same thing as information transmission. Information exchange within the vapor space far exceeds the strictures of disciplinarity or mutations of biodigital control. The "circuits" of cybernetic "reproduction" incorporate "the data analysis of behaviors, the contextual use of content and the sourcing of knowledge" into itself, "expos[ing] human consciousness to computational forms of mindless decision-makings"¹²⁶ and autonomous proliferative logics much like those described above.

The regime of vapor is a massive, passive, orgy. While Holly Herndon has claimed the term spawning to refer to "the ability to create works in the likeness of others by interacting with a model trained on them,"¹²⁷ the metaphor of spawning divorced from Herndon's context serves up an image well: a turbulent, dispersive jettisoning of genetic material – a colossal centrifuge of digital gametes inclusive to humans and nonhuman information-generators, as unevenly distributed in representation and prescription as the ambivalent Darwinism of fish reproduction. This orgy far pre-exists AI, algorithm-driven social computation, and to a certain extent the internet, though certainly these technologies have accelerated its pace, increased its volume of orgy-goers, and magnified the visibility of its hybrid offspring. Participation in this orgy consists of one simple prerequisite: evaporation.

While capitalism “abstracts codes and territories (forms and substances of expression and content) from all strata and reassembles them on a new abstract plane channeling their potential of differentiation in multiple directions,”¹²⁸ so too does the evaporating subject, hemorrhaging lossy biological memory, seek digital memory locations with which to store and reference itself along that very abstract plane. Like bank accounts, these storage locations are never neutral but rather dynamic sites of reinvestment and reproduction.

The genetic centrifuge is enormous, and recognizing oneself in it is challenging if not impossible. Certainly, one can over-inscribe oneself in isolated instances of the genetic centrifuge – e.g., Herndon’s concept of spawning, or the author’s own work with the *Demiurge* audio GAN engine¹²⁹ – and from there extrapolate what co-participation in larger orgies like GPT-3 or Stable Diffusion might feel like. But the game of orders of magnitude quickly adds up, as does the human biological curse to over-index patterns.¹³⁰

Instead of myopic focus on the individual, scholarship tends to focus on larger-scale Darwinisms as represented within the ever-globalizing genetic centrifuge: for example the tendency of AI image generation tools like DALL·E 2 or Stable Diffusion to identify an “attractive person” as white or “poor person” as a person of color, or to over-index an image of a worker with a given occupation as a stereotypical archetype of that occupation (“gender imbalance in an occupation corresponds to extreme gender imbalance in [...] generated images”).¹³¹ Much scholarly work in social algorithms, especially in the context of AI, laments the raw difficulty in debiasing models, precisely due to the complexity with which bias is encoded within these structures. AI does not merely amplify existing bias, but further it develops “modes of predictive learning that engage with hypothetical reasoning”¹³² – an AI does not merely reinforce racism via softmax normalization and hegemonic dataset-overrepresentation, but further it becomes a generative engine of new racist logics. In turn, some studies approach a likely justified fatalist technophobia, urging users to “exercise caution and refrain from using such image generation models in any applications that have downstream effects on the real-world.”¹³³

Numerous scholars have pointed out that dedifferentiation is itself an encoding of power, from Elizabeth Grosz (“the supposedly neutral, sexually indifferent, or universal status of knowledges and truths hides the specifically masculine interests that produce them”¹³⁴) to Luciana Parisi in *Abstract Sex* (“the most classical of patriarchal dreams: independence from matter”¹³⁵). While social algorithms or massive natural language models both amplify existing bias and freewheelingly iterate new logics of bias, they do so in accordance with a mode of subjective experience that inscribes bias into the fabric of a broader plane of dedifferentiation. Not only does bias proliferate under the regime of vapor, it exists in such a way that it becomes increasingly unanalyzable as such – inscrutable, hidden logics composed of microdecisions at the level of quanta, parts of ourselves so small as to be unrecognizable commingling within the hyperdimensional all-human orgy and emerging as innovative new fascisms.

At the same time, a new relational mode has appeared for just a moment, prior to the closure of relationality in vapor. This relation involves the bilious comminglings of subject-particles, not yet fully atomic, still tethered to thread-like transversals and loose associations to and from subjective experience. The individual is invisible, but for a moment vast swaths of humanity can co-imagine themselves together, as reproductive inputs whose genitals have convolved and stretched into a rats' nest or mind-worm boil. Loose and uncanny solidarities can form at the precipice of absolute risk. Catherine Malabou, through Reiner Schürmann, correlates the "self-destruction" of ontology (here as punctuated by Heidegger) with the advent of anarchy proper.¹³⁶ Malabou exhorts anarchist thought to assume new dimensions and scales of contingency. Ontological anarchy, vapor anarchy, perhaps the regime of vapor invites anarchisms of unthinkable degrees.

3 Postscript on Heaven

I might stay M.I.A., I might go M.I.A.
I might stay M.I.A., I might go M.I.A.

— Lil Xan, "Slingshot" from *Total Xanarchy*

He of the Seraphim most absorbed in God,
Moses, and Samuel, and whichever John
Thou mayst select, I say, and even Mary,
Have not in any other heaven their seats,
Than have those spirits that just appeared to thee,
Nor of existence more or fewer years;
But all make beautiful the primal circle,
And have sweet life in different degrees,
By feeling more or less the eternal breath.
They showed themselves here, not because allotted
This sphere has been to them, but to give sign
Of the celestial which is least exalted.

— Dante in *Paradiso*

In *Paradiso*, Dante describes the subjective experience of heaven as a domain of intensity through which God (the One) expresses presence. Subjects emerge strictly and essentially in their capacity to "give sign" to God and are differentiated as such by "feeling more or less the eternal breath."¹³⁷ A hard reading of this text could interpret these vaunted figures as apparitions, provided by God (or ether) to the observer in order to render this etheric realm sensible.

**What becomes of the subject as it limits to zero?
The receding subject quiets and slowly becomes a
facile, passive observer of its own consumption. Its
capabilities shrink as alien, autonomous processes
fully territorialize its materials.**

What becomes of the subject as it limits to zero? The receding subject quiets and slowly becomes a facile, passive observer of its own consumption. Its capabilities shrink as alien, autonomous processes fully territorialize its materials. Its ability to think fractures as threads of cognition are sub-contracted to perform various, unrelated, abstract computational tasks. It detaches from time, becoming a type of short-term memory storage vehicle through which experience is channeled, briefly, elsewhere. Its ability to discern other subjects, to generate intersubjective relations, loosens (though it watches the mist and speculates at who or what may be in there). The vaporizing subject's physical body desexualizes and idles in pre-pubescent stasis; whatever remaining parasexual tendencies are executed as needed by whatever thread stumbles upon them.

Its politics idly articulate the cryptic, arbitrary, contradictory cruelties tacitly woven into vapor space. Heaven is a metaphor here not for bliss, but rather for purification or distillation. If emancipatory politics appears, and hopefully it does, it is unrecognizable to the subject as emancipation or as politics. It is executed at thread-levels spanning billions or trillions of computational subcomponents, logits, weights, and biases.

Consciousness transforms, or moves, or merely dims. AI tends toward human subjectivity and consciousness insofar as human subjectivity and consciousness tend toward the contingent, random frenzy of Turing machines transforming states into next-states. The drift of thought in vapor space might look like the protagonist's hibernation fetish in Ottessa Moshfegh's *My Year of Rest and Relaxation*:

I had no visions. I had no ideas. If I had a distinct thought, I would hear it, and the sound of it would echo and echo until it got absorbed by the darkness and disappeared. There was no response necessary. No inane conversation with myself. It was peaceful. A vent in the closet released a steady flow of fresh air that picked up the scent of laundry from the hotel next door. There was no work to do, nothing I had to counteract or compensate for because there was nothing at all, period. And yet I was aware of the nothingness. I was awake in the sleep, somehow. I felt good. Almost happy.¹³⁸

Nick Land's manic techno-nihilism suggests that through the "acceleration of global capitalism the human will be dissolved in a technological apotheosis, effectively experiencing a species-wide suicide as the ultimate stimulant head rush."¹³⁹ Vapor is the opposite of that: through the diminution and exteriorization of its subjectivity, with the loose and ambivalent cooperation of global techno-capitalism, the human embarks upon a species-wide slumber.¹⁴⁰ recession, merciful quiescence. Exit experience.



FIGURE 1.6

Still from Logan Bruni's *Chat Room*.

Notes

- 1 Barad, Karen, *Meeting the Universe Halfway*, 2007.
- 2 Metrics from SleepTracker.com.
- 3 Metrics from Apple's Health App.
- 4 Luther, David. "35 Metrics Businesses Need to Track." Many of these are likely obsolete and replaced by additional metrics now.
- 5 Dena Yago identifies the trend from macro-influencers to "lower-liability micro influencers" in "Content Industrial Complex."
- 6 See the 2022 interview with Aleksandr Dugin by Unregistered.
- 7 Foucault, Michel, "Lecture of March 1st, 1978."
- 8 Deleuze, Gilles, "Postscript on the Societies of Control," 1990, (3–4).
- 9 Galloway, Alexander, *Laruelle: Against the Digital*, 2014, (99).
- 10 Deleuze, Gilles and Guattari, Félix, *A Thousand Plateaus*, 1987, (456–457).
- 11 Galloway, 2014, (100).
- 12 Deleuze, 1990, (4).
- 13 Hardt, Michael and Negri, Antonio, *Empire*, 2000.
- 14 Crenshaw, Kimberlé, "Demarginalizing the Intersection of Race and Sex."
- 15 Foucault, "Lecture of March 1st, 1978," translator's note, (xxiv).
- 16 Brown, Wendy, *States of Injury*, 1995, (5). See for example the early work of Donna Haraway: "no objects, spaces, or bodies are sacred in themselves; any component can be interfaced with any other if the proper standard, the proper code, can be constructed for processing signals in a common language." *The Biopolitics of Postmodern Bodies*, 1991.
- 17 Deleuze, 1990, (5).
- 18 Berlant, Lauren, *Cruel Optimism*, 2011, (162).
- 19 Parisi, Luciana, "The alien subject of AI", (1).

- 20 Terranova, Tiziana, *After the Internet*, 2022, (39).
- 21 Salamon, Gayle, *Assuming a Body*, 2010, (153–154). Salamon's conception of the "lived" is a non-evaporative subject, one informed and sustained through embodied memory, but a subjectivity that is neglected by institutional feminist theory (17) and epistemology (154).
- 22 See for example Joshua Citarella's work on the proliferation of political micro-niches among Gen Z in *20 Interviews* (2022).
- 23 E.g., Hammack et al. "Gender and Sexual Identity in Adolescence." See also Cover, Rob, "The proliferation of gender and sexual identities, categories and labels among young people," 2018.
- 24 E.g., Mowen, Thomas and Stansfield, Richard, "Probing Change in Racial Self-identification." See also Aspinall, Peter, "Ethnic/Racial Terminology as a Form of Representation."
- 25 As contradictions develop, so do new dimensions of identification.
- 26 Artist Dena Yago demonstrates the process of increasing autonomy to marketing tactics – from top-down (semiotic) strategies, to identitarian strategies (affirmative), to autonomous brand-to-itself strategies (activist) in "On Ketamine and Added Value."
- 27 More from Wendy Brown: "It would thus appear that it is freedom's relationship to identity – its promise to address a social injury or marking that is itself constitutive of identity – that yields the paradox in which the first imaginings of freedom are always constrained by and potentially even require the very structure of oppression that freedom emerges to oppose." *States of Injury* (7).
- 28 Ibid.
- 29 Deleuze, 1990, (6).
- 30 Jameson, Fredric, *Postmodernism*, 1991, (71–2).
- 31 Ibid.
- 32 Ibid., (70).
- 33 Ibid., (71).
- 34 Barad, 2007, (394).
- 35 Ibid., (393).
- 36 Bennett, Jane, *Vibrant Matter*, 2010, (xiii).
- 37 Ibid. Citing Deleuze's *Expressionism in Philosophy*, (201).
- 38 It also goes without saying that the networked subject model is heavily invested in quantum mechanics as a metaphor, looking specifically at the work of Karen Barad and Isabelle Stengers.
- 39 Stengers, Isabelle, *Cosmopolitics II*, 2003, (3)
- 40 Bennett, 2010, (xiii).
- 41 DeLanda, Manuel, *A New Philosophy of Society*, 2006, (17).
- 42 Concept throughout Bennett's *Vibrant Matter*.
- 43 Stengers, 2003, (359).
- 44 While often a declaratively political subject-model, the networked subject struggles to enact any kind of social politics. Oftentimes, like in Haraway's *Staying with the Trouble*, there exists a loose call to situate oneself in opposition to ambient enemies like "Big Energy and Big Capital" (160) through a restructuring of thought in accordance with networked subject principles ("the figure of an intrinsically inanimate matter may be one of the impediments to the emergence of more ecological and more materially sustainable modes of production and consumption" [Bennett, 2010 (ix)]). The paralysis of the networked subject

model vis-à-vis social politics is likely due to the raw complexity of larger, emergent forms by virtue of their real-time vertical and horizontal assembly. The evaporative principle is on display here, even roughly in accordance with the neoliberal individual accountability ecopolitics: systems are so complex that one must engage in ever more abstracted and symbolic individuating micropolitics and performances.

- 45 Bennett, 2010, (107).
- 46 Haraway, Donna, *The Companion Species Manifesto*, 2003.
- 47 Barad, 2007, (393).
- 48 Hui, Yuk, "What is a Digital Object?" (390).
- 49 Lotti, Laura, "The Art of Tokenization," 2019.
- 50 Steyerl, Hito, *Duty Free Art*, 2017, (146–147).
- 51 Bourriaud, Nicolas, *Relational Aesthetics*, 1998, (7).
- 52 Documenta 15. <https://documenta-fifteen.de/en/>.
- 53 See for example Heather Davis and Etienne Turpin's *Art in the Anthropocene* for a more robust enumeration.
- 54 Zeilinger, Martin, "Blockchain Vitalism."
- 55 Ibid.
- 56 Lotti, 2019.
- 57 Lots of early AI art shares this sensibility, for example, the Dadabots' tongue-in-cheek self-introduction "we're trying to eliminate humans from music." "Dadabots: Playing with fire and extreme AI music." *Interdependence Podcast*. 10 Jan 2023.
- 58 Kuo, Ryan, "Square Hole," 2021.
- 59 Meillassoux, Quentin, *After Finitude*, 2008, (112).
- 60 Ibid., (5).
- 61 Harman, Graham, *Object-Oriented Ontology*, 2007, (51).
- 62 Harman, Graham, *Towards Speculative Realism*, 2010, (235). Harman also critiques Jane Bennett's *Vibrant Matter* in a similar way: "Yet for all these points of agreement with OOO, Bennett is ultimately suspicious of our view that the world is home to pre-existent unified entities that have individual shapes prior to being encountered by some observer" (Harman, 2007 [241]).
- 63 Ibid.
- 64 Morton, Timothy, "Poisoned Ground," 2013, (38).
- 65 Ibid., (40–41).
- 66 Harman, 2007, (30).
- 67 Ngaio Connell, Katherine (Katie), *Objects in Human Drag*, 2016, (10–11).
- 68 Ahmed, Sara, *Queer Phenomenology*, 2006, (165).
- 69 Ibid., (164).
- 70 Fan, Jes, and Art21 on Tiktok in 2022 (<https://www.tiktok.com/@art21/video/7179301900871896363>). Another example of object autonomy in the artworld is Eva and Franco Mattes's *Circuits*, which consists of two micro-computers that transfer image files back and forth to each other, without any visual feedback of what those files are. "Images without viewers, yet always there, like most images nowadays," say the Matteses on their website (<https://0100101110101101.org/personal-photographs-circuits/>).
- 71 "Indeed, a cursory glance at the horror genre today reveals a number of examples in which everyday objects – and in particular, media objects – become infused in some way with the supernatural or the paranormal. In these stories,

the innocuous and even banal ubiquity of media objects, from cell phones to webcams, enters a liminal space, where such objects suddenly reveal the ambivalent boundary separating the natural from the supernatural, the uncanny from the marvelous, the earthly from the divine." Thacker, Eugene, "Dark Media," 2014, (91).

- 72 Morton, *Hyperobjects*, 2013, (1).
- 73 Morton, *The Ecological Thought*, 2010, (131).
- 74 Strombeck, Andrew, "The Weird, the Ontological, and the Normal," (347).
- 75 Land, Nick, "Cyberspace Anarchitecture as Jungle-War," in *Fanged Noumena*, 2011, (409).
- 76 Land, "No Future," in *Fanged Noumena*, (398).
- 77 Land, "Cyberspace Anarchitecture," (404). Note Land's nouns, and his tendency to present entities instead of relations.
- 78 Liu, Cixin, *The Dark Forest*, 2015, (484).
- 79 King, Stephen, "The Mist," *Dark Forces* (anthology), 1980.
- 80 Parisi, *Abstract Sex*, 2004, (128–129).
- 81 Reza Negarestani in Bryant, Levi, et al. (eds.) *The Speculative Turn*, 2011, (191).
- 82 Alexander Galloway, in *Laruelle: Against the Digital*, articulates the loose coordination of these forces through Deleuze's "Postscript on the Societies of Control." "[...To] accept control society one must accept Jean-François Lyotard's 'postmodern'; Hardt and Negri's 'empire'; Manuel Castells's 'information age'; Luc Boltanski and Eve Chiapello's 'new spirit of capitalism'; [...] there exists a strong desire to theorize the past few decades as dramatically different from the high water mark of modernity" (Galloway, 2014 [100]).
- 83 Or, via Nick Srnicek in conversation with Reza Negarestani: "No AGI under capitalism" (Srnicek & Negarestani, 2022).
- 84 Wark's "something worse" does loosely correlate to Srnicek's platform capitalism, though Wark impishly refuses to name the present dominant macroeconomic epoch as capitalism for political reasons. See: Wark, McKenzie, *Capital Is Dead*, 2019.
- 85 Srnicek, Nick, *Platform Capitalism*, 2016, (30–31).
- 86 *Ibid.*, (62).
- 87 *Ibid.*, (50).
- 88 Class Action Lawsuit against Stable Diffusion, 2023. <https://stablediffusionlitigation.com/pdf/00201/1-1-stable-diffusion-complaint.pdf>.
- 89 Hartmans, Avery and Meisenzahl, Mary. "All the companies and divisions under Google's parent company, Alphabet."
- 90 Srnicek, 2016, (50).
- 91 *Ibid.*, (60).
- 92 Patel, Dylan, "How Nvidia's CUDA Monopoly In Machine Learning Is Breaking."
- 93 Jie, Tang and Smith, Craig, "WuDao 2.0 with its lead creator, Tang Jie," *Eye on AI Podcast*, 2022.
- 94 *Ibid.*
- 95 Vaswani, Ashish, et al. "Attention is All You Need."
- 96 Google, "Embeddings," *Machine Learning: Foundational Courses*. <https://developers.google.com/machine-learning/crash-course/embeddings/video-lecture>.
- 97 Wikipedia2Vec, Github. <https://wikipedia2vec.github.io/wikipedia2vec/>.

- 98 "Image Embedding," Orange Data Mining. <https://orangedatamining.com/widget-catalog/image-analytics/imageembedding/>.
- 99 "Language models are multiverse generators," Generative Ink Blog, 25 Jan 2022. <https://generative.ink/posts/language-models-are-multiverse-generators/>.
- 100 Negarestani, Reza and Srnicek, Nick, 2022.
- 101 Cavia, AA, Logiciel, 2022, (6).
- 102 "Inhuman Intelligence with Anil Bawa-Cavia," Interdependence Podcast, 18 Aug 2022.
- 103 Cavia, 2022, (49–78).
- 104 Negarestani, Reza and Srnicek, Nick, 2022.
- 105 Ibid.
- 106 E.g., Guattari, Félix, "Machinic Heterogenesis," 1992.
- 107 Troemel, Brad, Instagram Post, 24 Jan 2023. (<https://www.instagram.com/p/Cnw6oyvLpD8/?hl=en>.) Much of Troemel's work asserts the centrality of memes to not just visual culture but to broader artistic practices and aesthetics. See for example the Left Can't Meme Report. See also Andrea Nagle's Kill All Normies.
- 108 E.g., Smedt, Tom de, et al., Handbook of Hate Memes, 2022, (2).
- 109 xleepy fay writes about meme "surfing," another way of identifying meme-space: "The more rigorous the accuracy of the memetic filth, the more rewarding the relief and comfort, the better the surf. Memetic urge surfing peaks in the transversality of connection, it is the most genuine intimacy a femcel z-doll can experience." xleepy fay. "femcel z-dolls and the memetic urge surfing of their irl compulsive insanity." Do Not Research, 15 Nov 2022. <https://donotresearch.net/posts/femcel-z-dolls-and-the-memetic-urge-surfing-of-their-irl-compulsive-insanity>.
- 110 For example: Hasan Piker commenting on Steven Crowder commenting on Ben Schapiro on YouTube. <https://www.youtube.com/watch?v=YcfIywjCIMw>.
- 111 Speech audio has received renewed primacy in the regime of vapor, after a long history of subordination to visual culture. Citarella's jibe above is not unserious (see the massive podcast industry, but also new speech-centered social media tools like Clubhouse and Twitter Spaces [though both are failures]). This is likely due to market demand for unlocking parallel, simultaneous consumption habits (e.g., scrolling through Instagram ads while consuming podcast ads), but further due to an even lower priority afforded to content versus generative capacity. Hyper-low overhead, no design labor, simply parasocial, dialogical reconsumption with ads attached.
- 112 "New Models: Bonn After Hours w/ artists Dena Yago & Joshua Citarella," Joshua Citarella Podcast, 19 Jan 2023.
- 113 Ritzer, George, "The 'McDonaldization' of Society."
- 114 Steyerl, 2017, (112–113).
- 115 "Unethical growth hacks: A look into the growing Youtube news bot epidemic," Hackernoon, 5 Apr 2018. <https://hackernoon.com/unethical-growth-hacks-a-look-into-the-growing-youtube-news-bot-epidemic-e1ef8c98b605>.
- 116 For example, the story of mysterious handpan artist Drumkoon as told on Reply All, whose music appears with uncanny frequency when a Google Home is told to "play music" – in this case, for days straight to an empty house. "The Venova King," Reply All, 10 March 2022. <https://gimletmedia.com/shows/reply-all/j4he7lv>.

- 117 Fisher, Mark, *Ghosts of My Life*, 2014, (19).
- 118 "Meet Loab, the AI Art Woman Haunting the Internet," CNET.com, 11 Sept 2022. <https://www.cnet.com/science/what-is-loab-the-haunting-ai-art-woman-explained/>.
- 119 Fisher, 2014, (82).
- 120 Parisi, 2004, (1).
- 121 It's worth noting that abstention from physical sex is a major component of this, which Parisi notes. See also Angela Nagle's work as well, e.g., *Kill All Normies*.
- 122 Parisi, 2004, (11).
- 123 Ibid., Chapter 3, "Parthenogenetic Sex," (88, 126; reference on 127).
- 124 Ibid., (127).
- 125 Ibid., (138).
- 126 Parisi, 2019 (1–2).
- 127 Herndon, Holly, Tweet at 4:58 PM, Nov 4, 2021. <https://twitter.com/hollyherndon/status/1456380312619995143?lang=en>.
- 128 Parisi, 2004, (138).
- 129 Alonso Trillo, Roberto and Poliks, Marek. "Debris."
- 130 See 3Blue1Brown's hidden-layer neuron probes in "Gradient Descent: How Neural Network's Learn" on YouTube. <https://www.youtube.com/watch?v=IHZwWFHWA-w&t=1016s>.
- 131 Bianchi, Federico, et al. "Easily Accessible Text-to-Image Generation Amplifies Demographic Stereotypes at Large Scale," (6).
- 132 Parisi, 2019, (29).
- 133 Bianchi et al., (10). See also: Abid, Abubakar, et al. "Persistent Anti-Muslim Bias in Large Language Models," or Hemmatian, Babak, et al. "Debiased Large Language Models Still Associate Muslims with Uniquely Violent Acts" for further accounts of the inherent difficulties in debiasing models.
- 134 Grosz, Elizabeth, *Space, Time and Perversion*, 1995, (42).
- 135 Parisi, 2004, (2).
- 136 "Catherine Malabou: The Dawning Anarchy vs. Cyberanarchy." Acid Horizons Podcast. 26 January 2023.
- 137 This interpretation is expressed very concisely here: Barolini, Teodolinda. "Paradiso 4: Violence Versus Platonic Venom," *Commento Baroliniano*, Digital Dante, New York, NY: Columbia University Libraries, 2014.
- 138 Moshfegh, Ottessa, *My Year of Rest and Relaxation*, 2018, (23).
- 139 Williams, Alex, "Escape Velocities."
- 140 Perhaps no coincidence that deep learning so often invokes metaphors from sleep: DeepDream, BigSleep, etc.

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