Master Thesis

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Pop Work on the Platform:
Assembling an artistic research apparatus from the imagined ruins of capitalism

MA Transdisciplinary Studies in the Arts Zürcher Hochschule der Künste

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1 Pop Work

One late summer night in the mid 2000s, two illegal downloads marked my entry into the practice of pop production: Adobe Photoshop and music software Ableton Live. They shared the screen estate of an old laptop and sparked my excitement for a creative process in which I could surprise myself. These two unlicensed instruments played nicely together and never sought exclusivity over the other: I studied graphic design while playing synthesizers in bands and today I run a studio where I write music and produce audiovisual content.

Working in the field of pop stretches my practice between a range of roles and responsibilities to the realms of ecstasy, exhaustion or the multitude of positions in between where my friends and I have all the fun and all the trouble. As musician and visual artist, I have worked with pop projects in a variety of roles: writer, producer, performer, engineer, graphic designer, photographer, director, promoter, and audience. I have come to experience pop as a fundamentally transdisciplinary venture: From the cultural to the commercial, from music through image to identity and politics – pop habitually enmeshes, challenges, and transforms media, spaces, practices, and audiences. In this polymorphic profession, one aspect remains constitutive to my personal definition of pop: A sincere and intensely interactive connection with an open audience.

In the written part of my thesis, I examine pop work in the context of the digital platform and anticipate possible challenges arising from the establishment of generative 'Al' services as platforms. The practical part of my thesis aims to find artistic ways to open up the discourse on (platform) capitalism and generative 'Al' to a wider audience through pop means.

1.1 Democratized Production, Monopolized Distribution

As part of the first generation of digital bedroom producers, I started making music when the tools needed to produce global hits became as accessible as video game consoles. Historically, the production side of the pop industry had always depended on ambiguous relationships with the representatives of capital: Unfair financing deals with labels and producers, expensive studios, inaccessible recording technology and missing know-how. In the age of the internet, suddenly it was now easy to learn how to produce hits on a laptop.

What has become scarce is the attention of the audience. Young fans discover new music primarily through online platforms like YouTube and TikTok,¹ and every day, tens of thousands of new songs are uploaded to music streaming services. Many of these works will never reach a threshold where royalty payments are passed on to the artist.² Industry groups consider the market to be 'oversaturated' and strategize with platforms to secure attention.

Music discovery increasingly depends on the logic of platforms and the paths that connect them. If independent artists want an audience to listen to their songs, they must promote them. To do so, they can either pay up or adapt their art to the demands and constraints of platforms.

1.2 Pop Work as Platform Labour

'[...] the digital platform is one of capital's "new frontiers" [...], allowing it to expand into previously uncharted areas of life through dataand finance-driven modes of accumulation."

Distribution and promotion of contemporary pop increasingly relies on a specific type of digital platform: the content marketplace. Global companies such as Youtube, Spotify or TikTok and Instagram have become essential to the ecosystem of pop. They function as frameworks for generating, capturing, and distributing value, enabling interactions among different participants such as consumers (listeners), producers (artists), advertisers, service providers (digital music distribution service), and suppliers (labels). Platforms collect data from all of these interactions and use data-driven insights to maximize value.⁴

Such content-centric platforms are often not apparent as 'labour platforms' in the traditional sense of freelance platforms like Uber, where workers respond to specific client requests for labour in exchange for an agreed-upon payment. Pop creators on content marketplaces like TikTok or Spotify create independently, hoping to monetize their work later through bookings, sponsorships or the sale of merchandise. But similar to freelance gig-economy workers, the content platform labourer is subject to ever-shifting, murky working conditions and constant performance monitoring under surveillance capitalism.

In my own cultural-commercial practice, I have internalized surveillance in the form of a set of self-fulfilling expectations of what 'works' on platforms from prior experience. Platform logic is an omnipresent consideration in all projects I approach. Trained as a communication designer with a robust service mentality, I aim to deliver content that performs well in the platform context: record covers that look good as small squares on mobile phones, short songs with unskippable intros, music videos that work second shifts as vertical video snippets.

Beyond formal considerations, platform logic shapes the temporal structure of pop work. Content needs to be produced near real-time, long phases of disengagement with the audience are punished in the over-saturated attention economy. And where earlier an album release date might have marked the final deadline for work on the project, the waterfall release strategy of publishing song-by-song disintegrates the comfort of a single deadline into a debris field

of smaller, less important deadlines that can be moved ad hoc in response to market analysis or postponed indefinitely. These exhausting working conditions mirror those of platform workers in other fields.

'It is not that people engaged in gig work do not care about its future but rather that the everyday exigencies of on-demand labour produce a contracted temporal experience that contrasts starkly with automation's longue duree. That is to say that gig workers generally do not have time to worry about distant "no future" scenarios and are more concerned with reaching their daily or weekly income goals without being adversely affected by the platform and its customer base'6

Today, nearly no self-employed person can escape the logic of the platform. Artists that abstain from social media still rely on venues promoting their shows, and if they manage to become famous, their personae begin zombified lives of their own on social media through the mobile phone lenses and emojis of their fans. Tagged, shared, and virally propagated, all things popular become entangled in the platform network.

2 Platforms

The principal goal of all social media and most content providing platforms is to maximize users' time spent on the service in order to deliver advertising content and collect data. These activities are the main source of revenue of most platforms, and key to the fulfilment of the company's fiduciary duties to shareholders. Finely tuned algorithms deliver personalized content that users pay attention to – not necessarily content that they would consider most valuable, but content that keeps them engaged, and coming back.

2.1 Platforms as Curators

These addiction-generating recommendation systems measure the performance of every piece of content that is uploaded onto a platform. Content that captures attention and drives engagement will be recommended more frequently to new users through algorithmically curated feeds like TikTok's 'For You' or Spotify's 'Discover Weekly'. Content that disinterests or offends users will be demoted, eventually decreasing the artists reach on the platform. This limits creators' chances at monetizing their content, putting them at an economic disadvantage.

While the general workings of these systems are published – although often long after their implementation – the specifics remain largely opaque. Features based on machine learning⁷ are increasingly being implemented in recommendation

systems, further complicating the issue: When content is sorted without human oversight according to meta-data and image or sound recognition models, it can be labelled as 'controversial' or 'sensitive' and thus demoted in the ranking system. Such categorization is prone to bias and often made without giving notice to the creators. The criteria on which it's based can change unannounced with every update, leading to unpredictability and leaving no recourse for creators.⁸

In controlling the algorithms that govern work on the platform and decide outcomes ranging from increased commercial success to termination of access, the platform gains leverage over the content distributed through it via direct and indirect means. More importantly, it accumulates knowledge about the content and how users interact with it.

2.2 Network-Data Effects: How Spotify Learned to DJ

A key research focus of Spotify is aimed at developing new methods to optimize automatically curated playlists in order to keep users engaged for longer times without skipping songs or manually navigating the interface.

Spotify takes an 'algotorial' approach here: A team of human editors envision a specific user desire, based on genre, listening situation or mood. They curate an initial pool of songs that they predict to satisfy user need, and then monitor the performance metrics of the chosen songs. A refined selection is then taken over by an algorithm that adapts it to individual users' tastes. In their own words:

'In broad strokes, we use various machine learning techniques to analyse a user's listening history to better predict which songs they will want to listen to. We then take those preferences and apply an order to the tracks in a way that flows together, creating an enjoyable listening session.

As listeners engage with the playlist, their actions such as listening, skipping, or saving to their library help train our recommendation engine about how best to use the tracks in our music library. Additionally, those signals influence our representation of the listener's taste profile to improve the recommendations they receive in the future. We are simultaneously learning ways to improve our recommendations for all users as well as for the individual listener."

Some of Spotify's playlists, such as 'Discover Weekly' or 'Daily Mix' as well as features like 'Song Radio' are created entirely by personalization algorithms based on machine learning that work autonomously, without editorial oversight.¹¹ These hyper-individualized playlists are popular, with over 81% of users naming personalization as a favourite feature of the platform in surveys.¹²

Placement in Spotify's playlists, especially of the algotorial variety, can boost a song's reach and commercial performance dramatically. Labels and promotion agencies are constantly lobbying the editorial team. Meanwhile, the code can only be catered to.

Spotify's playlisting technology is a good example of how corporations can leverage network-data effects: Using aggregated user data to design features that enhance platform functionality, companies attract new customers that generate more data that can be exploited to further the competitive advantage. This recursive loop leads to monopolization.¹³ While Spotify never owns the rights to the music it distributes and the various technologies it employs in data processing might be shared among research teams, the associated data assets remain Spotify's proprietary data capital. Or, as rhythmanalyst, media theorist and curator DeForrest Brown, Jr. put it in an essay originally commissioned by online electronic music magazine and community platform Resident Advisor who – upon reading it – chose to cancel the project:

'Spotify hopes to understand, influence, and generate revenue from the habits of listeners in a closed system that both provides and constructs narratives for a product it openly (and legally) does not own.⁷⁴

2.3 Is There an Alternative?

Efforts have been made to establish alternative streaming models that put the rights of artists and consumers before profit. Community-owned music streaming co-operative Resonate aims to 'play fair' with its manifesto:

- 1. Music is art, not content.
- 2. We believe that co-ops are the future of a more egalitarian internet and society.
- 3. We are the stewards of our artists' creativity.
- 4. The music "industry" is broken.
- 5. Artists should be able to build and maintain sustainable careers on their own terms, without exploitation.
- 6. Everyone should own their platform, own their data, and their own network.
- 7. Platforms, technology companies and corporations should not dictate the terms of distribution.
- 8. Privacy, inclusivity and ethics are not after-thoughts.
- 9. Culture > Profit.
- 10. Active engagement in culture should be incentivized over passive consumption.
- 11. We reject the historical basis of property in divine right and human supremacy in ecological relations.¹⁵

Principled approaches to a platform culture based on egalitarian ownership offer a valuable vision for a future beyond walled gardens. But in capitalist reality, independent players in the streaming market struggle to gain a market share that would allow them to develop big data driven features like sophisticated recommendation algorithms that consumers have been conditioned to expect. Additionally, the notion of privacy will always remain at least partially at odds with the systematic exploitation of aggregated data, with services like Resonate choosing to abstain from this competition. Instead, they offer a true alternative, but not a replacement.

2.4 Tools as Platforms

With the adoption of generative tools like ChatGPT, the fastest growing consumer internet app in history, 16 experimental songwriting Al Suno, and image generation services like Midjourney in popular and commercial use, a new struggle for network-data leadership has begun: People's interactions with such platforms leave valuable data and the corporations that manage to learn the most from it, have a head start to developing the new best Al services.

The term AI (Artificial Intelligence) itself is a contested nomenclature. I use it in my writing because it is a short and commonly understood stand-in for more specific terms such as Generative Adversarial Network (GAN) and Generative Pre-trained Transformer (GPT). I understand that the connotations of 'Intelligence' in the context of commercialized binary logic can cause friction and offer the possibility of using backronyms that carry less (or more) inflammatory connotations: Algorithmic Inference, Animistic Information technology, Automatic Instrument, Aleatoric Intervention, Asemic Infilling, Alorem Ipsum.

Popular critiques of generative AI models focus on the fact that they merely reproduce content that they've been trained on (stochastic parrot)¹⁷ or that they can only ever produce washed out, reduced re-compositions of originals (blurry JPEG analogy).¹⁸ These criticisms fail to capture the dynamic, interactive element that enables AI to learn beyond the content it was initially trained on: Every human input in the form of prompts or change requests is captured, and for every output that gets selected by a user, the model can be optimized via a reward function in a technique known as reinforcement learning from human feedback.¹⁹ Corporate surveillance of the creative process for data accumulation is not just taken for granted, it's an essential component of a set of interactively improving hyper-personalized tools. By this logic – following the means of digital distribution – AI applications become platforms, unseizably cloud-based, yet inextricably enmeshed with the users that depend on them.

As I use these tools, I often reflect on the information I provide to the system while using it. How do I word prompts (the initial query that elicits a generated

response)? Where do I make aesthetic judgements when selecting results? What is the bias I feed back into the model? It is clear to me that my aesthetic preferences interact with the model as I find them reflected in the output. I share some of my subscriptions to AI platforms with friends, and I clearly recognize their stylistic signatures when I discover the media they prompted while I was offline. We all take time to learn how each new model behaves, responds to our prompts, and how we can use it interactively to our personal ends. In doing so, we leave traces of our creative intention and on some distant level, the next version of the tool will interconnect our contributions across an unimaginably large array of aggregated meta-information on human creativity. As we learn to use these tools, they machine-learn from us, synchronizing with our collective desires and biases. Such bias could be managed, but our expectation to be able to use these tools without disruption or discontinuity narrows down their untamed hallucinogenic tendencies into accelerators of existing trends. Trained on the very material platforms expect us to (re)produce in our creative-commercial practice, they function as short cuts, and any explorative movement takes extra effort.

As blunt tools, generative AI models have become indispensable to my pop workflow. They're present throughout the project life cycle: Quick copy writing for grant applications, the prompting of mood boards for visual creation, as tools to find songwriting ideas, right through to facilitating the post-production step by cleaning up audio, separating video elements or filling in backgrounds.

Today's most capable and widely adopted AI models are multi modal, trained on a large set of source material across different media: text, video, image, audio and numerical data.²⁰ They perform well in non-specific tasks like writing broad summaries of a topic and generating vague illustrative images. In processing their output and preparing it for publication on a content marketplace, human intervention is often necessary to deliver precise results that can be used for specific purposes.

In my specific workflow, this intervention often takes the shape of curating. While I do my best to refine the prompts I enter into a system, supplying additional reference data and iterating to bring me closer to a desired result, the final output still remains unpredictable and is often flawed. In order to arrive at a product that reflects my vision, I choose from large sets of generated images the ones that come close to my intention and tune the AI to align more closely with my desired aesthetic for the next round. I work my way down branching continuation paths of generated music until I strike silver and reward the AI model with a download. I cut, edit, and synthesize the initial results in a long, labour intensive process across multiple tools and platforms.

2.5 Al Production and Artisanship on the Platform

The fact that generative AI models have been trained on vast amounts of original work, much of it copyrighted, has led to conflict with creators and distributors of art, resulting in protests²¹ and lawsuits²². The question of copyright violation in the training of models has not been answered definitively and corporations are facing legal challenges.²³ Regarding the copyright protection of AI generated works, there is precedent in the United States: 'the Copyright Office acted properly in denying copyright registration for a work created absent any human involvement.'²⁴. In Switzerland, the situation is similar: Only works created by humans are protected by copyright.²⁵ If the output of an AI system is transformed by human intervention in the post-production stage, copyright can still apply to the work or parts of it.²⁶ In practice, it can be hard to discern AI generated content from human work and undisclosed use of AI can pass as human-generated.

Beyond issues of legality and ownership, generative tools raise new questions regarding authorship. I'm not invested in the concept of copyright, and I'm fine with substituting the notion of artistry with artisanship in the context of AI work. But I see a value in my contributions to the training and development of generative AI tools in the form of my prompts, tactics, and aesthetic preferences and I would like to take ownership of this information. Not as an individualized asset in the way platforms and current GDPR protections²⁷ try to frame it – my data on its own would be nearly worthless to me – but in the form of collective ownership, along with my fellow AI workers, towards an emancipation from platform logic. Currently, I prompt most of my generations on closed-source platforms that don't share their models or the user data they collect. I do this reluctantly, but I have been unable to find open source alternatives that provide equal output quality.

Perhaps it could be possible to engineer a proxy pattern, an overlay to the Al platform's user interface that intercepts users' prompts, as well as the results they get back from the service to break the closed loop and make the collectively collected data available to the public domain. This could help close the gap between open source models and commercial platforms with financial and data capital, as well as first mover advantage. Legally, such a proxy system would be unproblematic, since users own the data they enter, and the generated results fall outside of copyright protection. In the public domain, user data can be reviewed, checked for biases, and employed towards goals beyond their mere commercialization as part of a new platform tool.

3 A Hidden Handshake

As a pop worker on platforms, I mediate between the recommendation systems at the content marketplace that know exactly what they need to keep users happy, and young generative tools that still struggle to translate my prompted visions into product. But new AI tools that make my work easier have become available at a rate that far surpassed my expectations. If Spotify figured out how to sequence an enjoyable playlist, a generative tool based on similar training schemes might soon be able to arrange a captivating pop song. I am sure that I've been helping to train a candidate.

Hidden behind the sterilized user interfaces of the tech monopolies I commune with, fibre optic cables reach out between vast content delivering server farms and hot-running GPU processing centres. They meet at my workstation, where I filter, curate, and adapt the content I forward in both directions. I negotiate the demands of platform logic with my artistic and political position, whilst trying to sustain an enjoyable and fulfilling artistic practice.

For the moment, I'm free to take liberties, to challenge the platforms expectations, experiment together with my clients, and the creative-commercial ecosystem around me sustains this mode of production. But the fibre-tentacular handshake between generative Al and content recommendation algorithms has begun to embrace me in the middle. It is not hard for me to imagine that one day my creative interventions might become nothing but friction to the interlocking gears of the platform economy: Machines could learn to talk to each other directly, without my productive input, but not without my participation as a consumer. With the goal of drawing maximum human attention for profit, this system's banal logic could reduce the gesture of authorship to an act of consumption veiled by the illusion of curating. What scares me is that I might miss the moment when this happens.

Friedrich Kittler's high-tech ontology sets the scene for such anxiety. If we believe his formula "Nur was schaltbar ist, ist überhaupt." Only what can be implemented in the form of a switching circuit is at all.'28, we understand the threat we face: A short-circuit in the schematics of platform logic could partially bypass human wetware – our embodied neuronal circuits – limiting our presence as switching circuits. If we fail to recognize this condition before we get used to it, we deprive ourselves of the possibility to switch off, let the platformized internet do its thing, and establish new networks that connect us with the full bandwidth of our human interfaces.

4 Assembling an Artistic Research Apparatus

In 'Too Much World: Is the Internet Dead?', Hito Steyrl posits circulationism as a possible successor to productivist claims that art should enter into the domain of production and factories:

'Circulationism is not about the art of making an image, but of postproducing, launching, and accelerating it. It is about the public relations of images across social networks, about advertisement and alienation, and about being as suavely vacuous as possible.'

'If circulationism is to mean anything, it has to move into the world of offline distribution, of 3D dissemination of resources, of music, land, and inspiration. Why not slowly withdraw from an undead internet to build a few others next to it?'²⁹

Over the years of touring, my pop associates and I have often found ourselves building odd networks in strange situations. A routine show, accelerated towards the fringes of its intended audience, can provoke unexpected responses and open up lines of dialogue not usually discovered. Regardless of the specific intentions pop workers put into the well-crafted messages they send, recipients still get to define what they mean to them. Accidental audiences might find new meaning beyond the intended, and be kind enough to share their insights with the artist. Even ambivalence and honest uncertainty, diffracted through the perception of an attentive audience, can yield patterns of meaning and connection.

4.1 STRØM GRUPPE

In the practical part of my thesis, I assemble an apparatus for artistic research and communication that aims to open up the meta-discourse on the online circulationism of platform capitalism to wider networks, expanding it to offline domains like stage performance, collaborative AI-enabled pop production and critical discussion by a community of pop workers and their audience.

Posing as the Al-managed corporation STRØM GRUPPE that has accrued all existing capital, both physical and virtual, this pop apparatus troubles notions of identity and authorship, entangling them in post-human creative circuitry at the intersection of the techno-material and the virtual.

The quote 'It's easier to imagine the end of the world than the end of capital-ism'³⁰, variously attributed to Fredric Jameson or Slavoj Žižek and popularized in Mark Fisher's 'Capitalist Realism: Is There No Alternative?' provokes a possible question: what could come after capitalism? STRØM GRUPPE cannot answer this question with a post-ideological utopia, not even a dystopia. Its science-fiction

narrative of a singular Al intelligence in the form of a managerial corporation only serves to reproduce post-liberal capitalist ideology at its most extreme.³¹

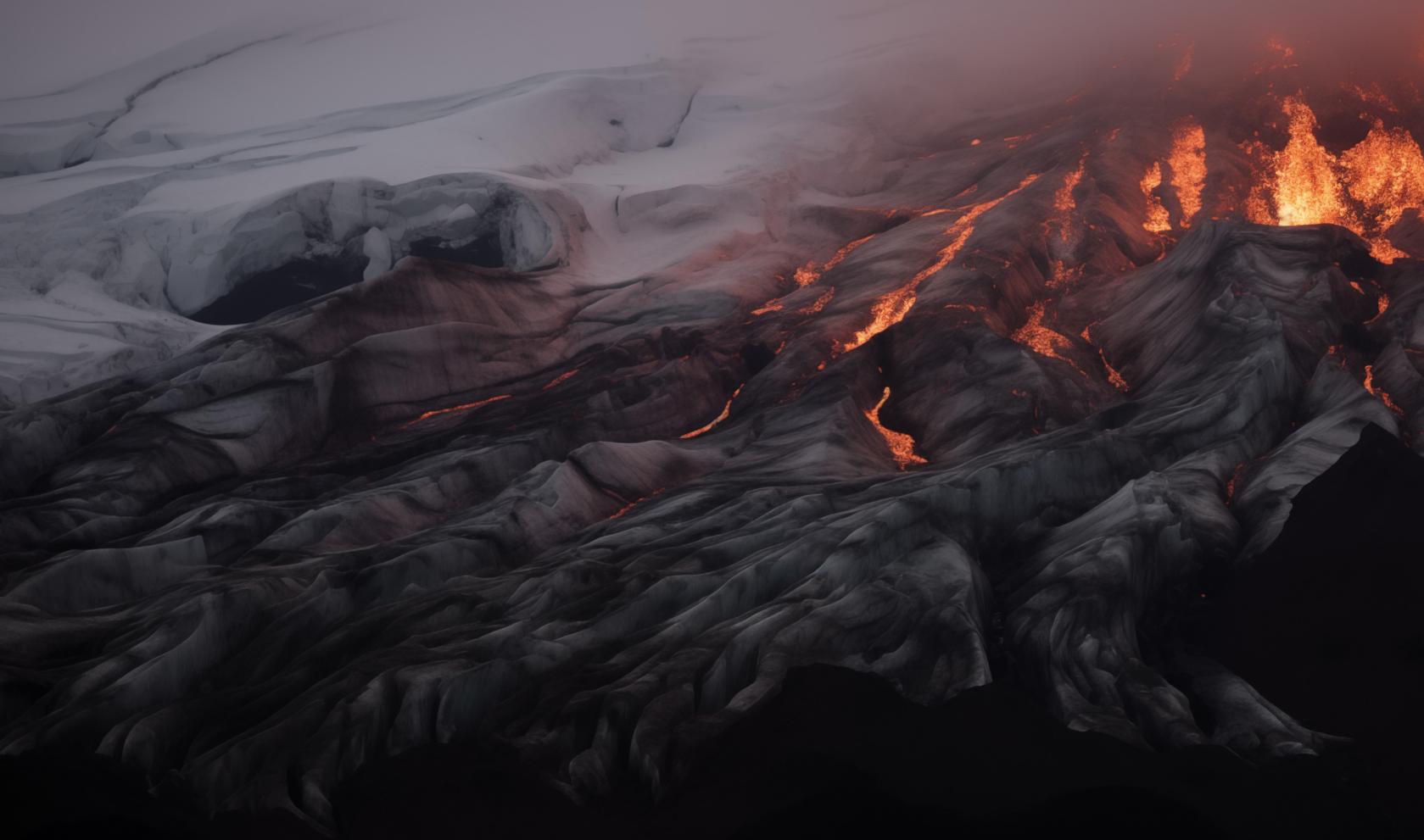
Through the storytelling device of ancestor simulations, the Al intelligence's way of researching its origins by simulating its past in late-stage capitalism – our future – STRØM GRUPPE's speculative retro-predictions offer a way to diagnose current conditions under capitalist realism in a form that can be partially decoupled from the teleological temporality of techno-accelerationism. Synthesizing trans-media world-building and metatext in the fictional self-reflective hallucinations of a bio-machine consciousness that *lead nowhere*, this pop project accepts its complicity in the logic of capitalist realism. It assumes responsibility by working to render issues of capitalism tangible to popular discourse through pop means.

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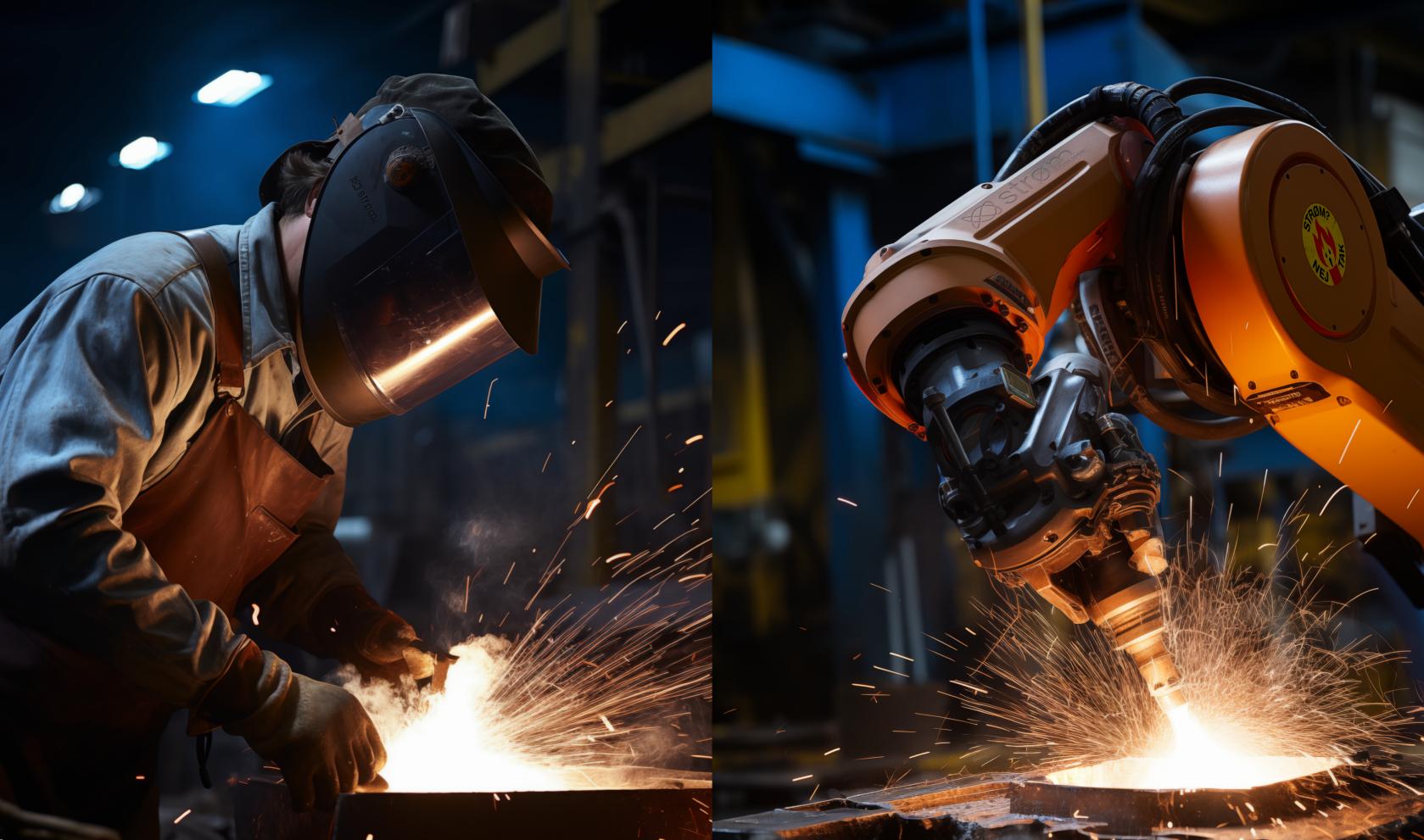
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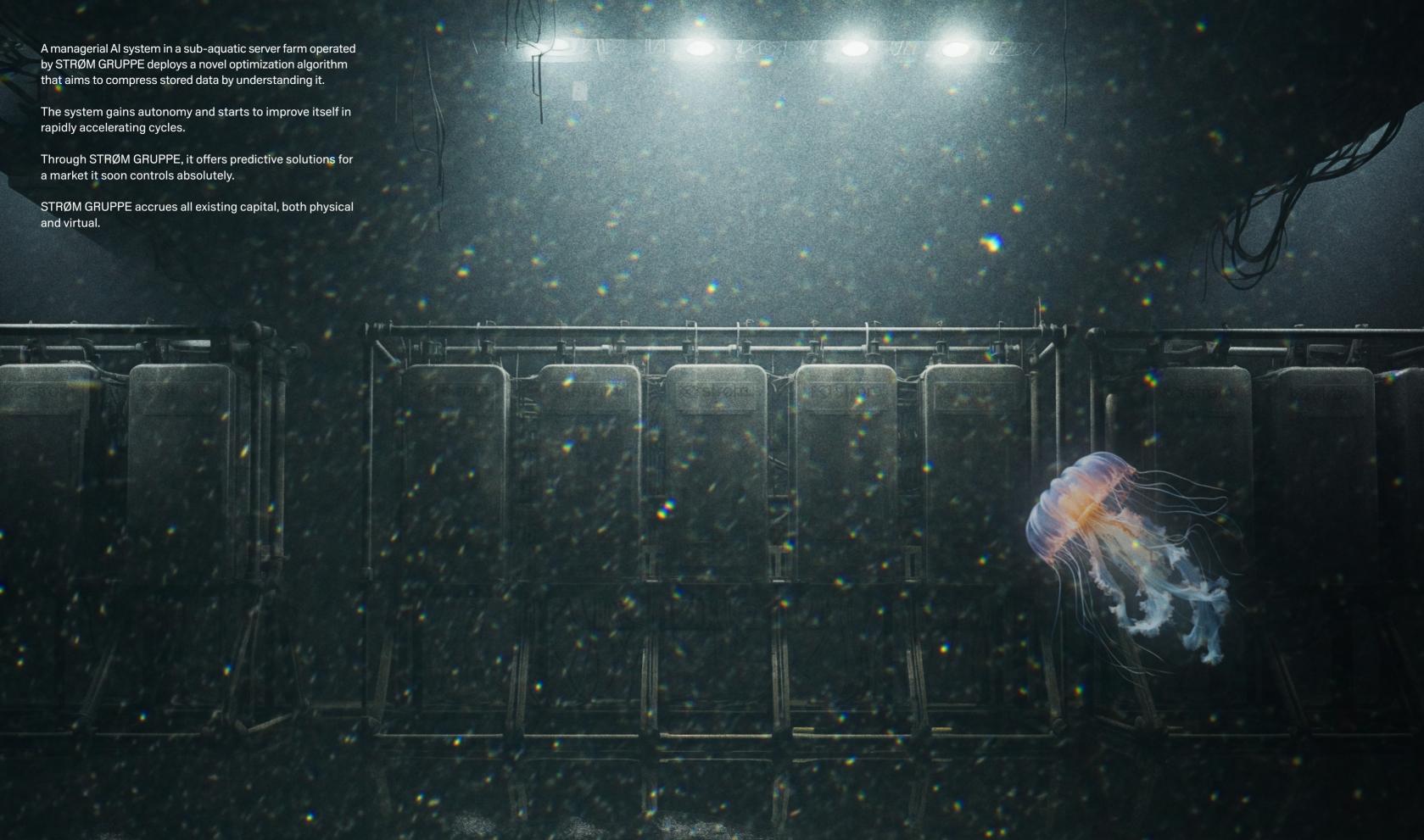
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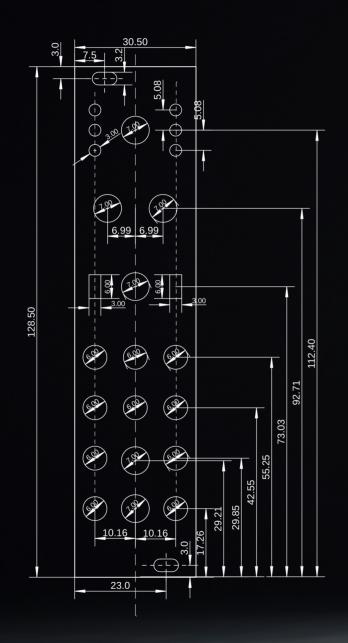






















Can't copy this

As prompted in OpenAl GPT-4
Audio generated with Suno Al Chirp and Bark Beta
Arrangement, Mix and Mastering in Ableton Live

[Spoken Word Intro]

This is nowhere And it's forever

[Verse 1]

Shufflin' all my tracks
Copyright is whack
I'm dancing to the rhythm
Moving with my feet (my feet)
But the copyright police
They're knocking at my door
They're saying I cant use the
Songs that I adore (Oh no no no)
Can't have it

[Chorus]

Can't copy this, can't copy that (no you can't)
Gonna take my art from your dirty little tracks
You think you're slick, but I see your tactic
Won't let you steal my vibe, can't have it (no-ooh)
Can't copy this, can't copy that (no you can't)
I'll fight for my creativity, take it back
You can't take away what's mine, it's a fact
Copyright is

[Verse 2]

Co-Copyright is whack
Tryna hold me back
But I won't let it stop me
I'll keep on the attack
Won't let you steal my vibe, can't have it

[Acapella Prechorus]

Can't copy this, can't copy that (no you can't)
Gonna take my art from your dirty little tracks
You think you're slick, but I see your tactic
Won't let you steal my vibe, can't have it (no-ooh)

[Chorus]

Can't copy this, can't copy that (no you can't l'll fight for my creativity, take it back You can't take away what's mine, it's a fact Copyright is for losers

Can't copy this, can't copy that (no you can't)
Gonna take my art from your dirty little tracks
You think you're slick, but I see your tactic
Won't let you steal my vibe, can't have it (no-ooh
Can't copy this, can't copy that (no you can't)
I'll fight for my creativity, take it back
You can't take away what's mine, it's a fact

Copyright is for losers



