The Texts Collection is a program that accompanies and amplifies artistic practices by generating a collection of monographic texts for Hangar residents. Each artist has the possibility to commission a text about their work from an author of their choice—local or international; known or to be known— in editorial dialogue with Hangar. The intention is to produce publications on their practice in general—beyond this work or that particular work— designed for agile circulation and reedition, ensuring a long life, and contributing to expanding the networks and frameworks of artistic practices.

Through this editorial device, artists can count on a comprehensive and in-depth text that captures their ways of doing and thinking holistically, integrating different projects to build an overall view of their practices. The *Texts Collection* also provides artists the opportunity to establish a writing relationship as a starting point, rather than as the result of a project or exhibition.

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TEXTOS

Embodying non-human hidden interactions: on the *Ad Tech Constellations* of Joana Moll

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Most users of today's platforms hardly know exactly what AdTech is, and what role it plays in our daily online interactions. Advertising has always had its grip in media channels of varying scope and influence, and one easily accepts it as a necessary evil with an increased level of complexity. AdTech, along with programmatic advertising, responds to the needs of a data-driven online world increasingly powered and regulated by machine learning. Offering personalised ads in real time, the right products meet the right people with better results every time. The process is automated and the human involvement needed for the ads used is minimised.

In its own way, AdTech summarises the impact of AI and automation on different sectors of daily life. Its addressability, the constant optimisation of its performance and its immediacy simultaneously bring to the surface issues of calculability, monitoring and, of course, exploitation. Lee McGuigan argues that AdTech "represents the latest configuration of audience manufacture as an evidential paradigm…".[1] As he explains, by monitoring user attention and behaviour, and taking into account tastes, habits, moods and movement, people can be classified and nudged toward desired behaviours. Optimisation also means classification, profiling and discrimination, and AdTech represents a prime example of how surveillance capitalism itself is optimised. McGuigan's perspective points to the seminal work of Shoshana Zuboff, who stated that

[1]   Lee McGuigan, *Selling the American People: Advertising, Optimisation and the Origins of Ad Tech* (London/ Cambridge: The MIT Press, 2023): 42, 6.

"surveillance capitalists know everything about us, whereas their operations are designed to be unknowable to us".[2] This means that the means of production, which includes AdTech, operate in obscure ways for the users and the question of agency comes yet again to the foreground. But how would it be possible to reveal, understand and disrupt or oppose these operations? This is by no means a new question for the era of connectivity and now of AI.

To address this, Joana Moll launched the *Ad Tech Constellations* project, which aims to shed light on how this complex system functions, and to provide in-depth knowledge about its mechanisms and ways of operation. "Once one's data is passed to an AdTech company in the US, the user loses legal control of their data; there is no law, to this day, which protects the user", the artist argues, underscoring how timely and needed her art is. The project naturally follows an array of works focusing on the problematics of technological infrastructures. Moll is an artist who has been examining, exploring and exposing the hidden processes of the Big Tech for more than a decade, rendering visible different forms of exploitation, from users' data and workers' labour to the use of planetary resources. With projects that have been featured in exhibitions and festivals at prestigious institutions around the world, her work has become a point of reference for the ways art can communicate and question the logic of the blackboxing of today's connected world.

Years ago, Joana Moll created a net-based project, *CO2GLE* (2014), which displayed the carbon emissions of the Google search engine in real time, literally making visible the weight of the most visited website and, hence, its material impact on the environment. With *Defooooooooooooooooooooorest* (2016), a net based project, she illustrated the number of trees needed to absorb the amount of CO2 that is generated by visits to Google worldwide. This underscored the company's enormous responsibility as well as users' consent at a time where nearly every open question can be answered by a Google search. Profit is the driving force for internet companies, the artist keeps reminding us. Her *Dating Brokers* (2018) project, realised in collaboration with the Tactical Tech, revealed how online data companies trade and exploit their users' profiles. For the *Hidden Life of the Amazon user* (2019), Moll captured how profit becomes possible through tracking and personalising user behaviour. Going a step further, the artist managed to reveal the journey of an Amazon user across a vast amount of

code that purposely remains hidden. Monetization and exploitation go hand in hand thanks to opaque and complex processes.

What Joana Moll returns to consciously, again and again, is the problem of the asymmetries of power found in today's communication technology infrastructures. And what she attempts is a form of critique that also needs to be accessible enough for users to grasp and to embrace. This can be understood as what Matthew Poole describes as 'infrastructural critique', followed by Marina Vishmidt; a critical art practice that identifies and questions "that which we know, but habitually take for granted and temporarily forget about". As he explains:

> "If infrastructural critique can show us anything and intervene anywhere, it is in the relationship between power that we can see (hegemony—the materially incorporated relations of power) and power that we can't see (ideology—the imagined representations of relations of power)".[3]

Joana Moll similarly states with reference to her projects that "spreading information and knowledge is the only way to have political influence, if you don't know how things work you can't make effective political demands".[4] These statements easily take us back to the fundamental thought and writing of Michel Foucault, followed by Gilles Deleuze, on how relations of power are hidden and distributed; only by finding the gaps in communication, by bridging theory with practice, by bringing in experience can forms of resistance become possible. Resistance, as they made clear, inspiring many thinkers and practitioners in the decades that followed, is based on the understanding of power. It is "a chemical catalyst that allows us to bring to light power relations, to see where they are inscribed, to reveal their points of application and the methods used".[5] This approach also highlights the importance of the diagram, the topology, the architecture of a system where power is exercise.

At the centre of this age-old relationship between power and resistance (which can also be recognised nowadays between networks, platforms and

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2   Shoshana Zuboff, *The Age of Surveillance Capitalism: The fight for a human future at the frontier of power* (New York: Public Affairs, 2019): 11.

3   Matthew Poole, «Infrastructure, Ideology, Hegemony», *Between Material and the Possible: Infrastructural Re-examination and Speculation in Art*, edited by Bassam El Baroni. (London/Oldenburg: Sternberg Press and Edith-Ruth-Haus, 2022), pp. 51-68.
4   As stated by the artist in an interview with Clara Piazuelo on the opportunity of GRA-PA residency. Access to the interview via personal communication.
5   Michel Foucault, «The Subject and Power». *Critical Inquiry* (1982). 8 (4). pp. 777–795.

apps on the one hand and companies and users on the other), one finds, and at the same time forgets, the body with its vulnerability and its potential. "The body is the inscribed surface of events",[6] and today, one can think of how the devices we use, the labour we do, the life we live, all end up being inscribed on our bodies, mentally and physically. As Arthur Kroker writes, today we are in a constant 'body drift' as "we circulate so effortlessly from one medium of communication to another…".[7] The body is and will be the ultimate medium, perhaps is still "a blank page, an unusual one" as Butler has put it , "for it appears to bleed and suffer under the pressure of a writing instrument".[8] In today's connected reality, some of the bodies exposed to surveillance capitalism suffer, some seem to go with the flow without realising, and some want to break out of the ongoing hidden surveillance and its constraints. "Our bodies are inflected, intermediated, complicated",[9] but at the same time, and very importantly, they hold the power and the potential to resist to contemporary forms of exploitation.

Returning to Moll's artistic work and also to her most recent project, *Ad Tech Constellations*, one interestingly notices the emphasis that she has puts on the body, approaching it as a medium, as a body that is docile, but also as one that can be defiant,[10] exposing and opposing the exercise of power over them. The description of *Ad Tech Constellations* reads that this is not a net-based installation or online work but rather an "action process that aims to provide in-depth knowledge about the functioning of the ad tech ecosystem". The word action is meant literally here since the work is based on workshops requiring physical movement and bodily interaction. Participants are asked to undertake different roles of the elements, acting within an onli-

6   As stated by Michel Foucault and quoted by Judith Butler, "Foucault and the Paradox of Bodily Inscriptions", the Journal of Philosophy , Nov. 1989, Vol. 86, No. 11, Eighty-Sixth Annual Meeting American Philosophical Association, Eastern Division (Nov. 1989), pp. 601-607, https://www.jstor.org/stable/2027036

7   Arthur Kroker, *Body Drift: Butler, Hayles, Haraway* (Minneapolis/ London: University Minnesota Press, 2012).

8   Butler, ibid.

9   Kroker, ibid, 16.

10   Following Foucault's writing on the docile, disciplined body, Matthew Clark argues about the Defiant body. "Resistance, Protest and the Production of the 'Defiant Body': Understanding Bodily Defiance through Phenomenological Engagements with Bourdieu's Theory of Practice". https://globalhorizonsjournal.wordpress.com/portfolio/resistance-protest-and-the-production-of-the-defiant-body-understanding-bodily-defiance-through-phenomenological-engagements-with-bourdieus-theory-of-practice/ Accessed 1 May 2024.

ne advertising ecosystem empowered by machine learning. With an almost unexpected move for an artist working with and on technological infrastructures, Moll decides to open up her methodology and to embrace techniques from systemic therapy, documentary theatre and performance. This decision, though, is not as sudden or abrupt.

In some of Joana Moll's previous projects, physical experience had a primary role to play. In 2021, the artist initiated and orchestrated _*16/2017* at the Centre d'Arts Santa Mònica. Wanting to turn the staff and the audience's attention to the problem of excessive energy consumption, she asked and challenged the institution to reduce its consumption 50%. In a radical move that required the institution to change its way of working, bodies had to adapt to this change and feel what it means working with fewer lights on and less heating. Visitors to the centre were advised to leave their coats on and to arrive with their phones charged. Less comfort compared to what is usually taken for granted, made the steps still needed for a sustainable world apparent. Cultural activities could still be organised, but with a different management of logistics involving infrastructures, bodies and the weather. A year later, in 2023, Moll presented her *Silent Opera for an Anthropogenic Mass*, inviting the audience to take a long walk through Tempelhof Park while listening to a sonification of accumulation of anthropogenic mass from 1900 to 2020. Launched in the month of February, one of the coldest months for Berlin, and as a sound walk, the work made it possible to perceive the scale and disproportion of anthropogenic consumption and waste in relation to the biomass. In a field that once used to be an airport with its runways, visitors were invited to walk at their own pace and reflect upon the costs of technological progress and acceleration.

In *Ad Tech Constellations*, the involvement of the body is at the core of the work. After the workshop participants have worked on diagrams that map the agents and relationships involved, paying particular attention to elements that are known, yet not clear regarding their function and purpose. As the artist states, the cookie, for instance, is "an identifier that links any activity of a user to their profile, so that all activity is recorded and identified. In fact, this is what has made the internet a very invasive surveillance machine".[11]

To make this tangible and perceivable, a participant is invited to become this non-human machinic element, to follow its path, to connect and

11   As stated by the artist in an interview with Clara Piazuelo published in the GRAPA notebooks. GRAPA is an artistic residency programme spearheaded by the Centre of Contemporary Culture of Barcelona (CCCB) and Hangar.

to provide information to third parties, played by other people. The different asymmetries of power are embodied in a role-play type of activity designed to an extent by the artist and a choreographer. Embracing the possibilities that systemic therapy offers, machinic interactions are performed and emotions based on these exploitative interactions emerge. How much can one take or tolerate, when becoming part of such a system? How does it feel to control or direct one's interests and attention? Many people experienced discomfort, intense and unpleasant feelings during the workshop.

The work of Joana Moll and the idea of becoming the machine and embodying its processes and interactions has several predecessors in the community of artists who engage critically with technology. Back in 2013, Julian Oliver and Danja Vasiliev ran workshops for school pupils in Berlin, building an analogue network out of cardboard and ping pong balls, playing with packet switching to comprehend network protocols. The Telekommunisten built *Octo* (2013) and took over HKW during the Transmediale Festival by building a rohrpost, a centralised network of a pneumatic tubes. The audience was invited to send paper messages in cylinder tubes, including advertisements commenting on the social media of the time. When you play the network, network users can understand the competitive interests involved, according to Dmytri Kleiner. More recently, in 2020, artist Nico Anguli created *Amazon Dance* in collaboration with choreographer Katerina El Raheb. As part of it, performers were invited to embody the Amazon algorithm and perform the impact it has on workers' bodies at the factories as they are pressured by time, surveilled and forced to repeat the same movements.

Joana Moll succeeds with her latest work to collectively capture, examine and perform the architecture of the AdTech ecosystem, while also exposing the psychological effects this infrastructure has on people. The groups she is working with can be heterogeneous "in terms of knowledge, backgrounds, professional perspectives"[12] and different issues with regard to colonialism, gender, materiality, semiotics, affectivity, mathematical function might arise. It is, therefore, not only a form of infrastructural critique as mentioned earlier but also a contemporary form of 'critical network practice', as Agre had described the need to test theory and knowledge with experience.[13] Orchestrating

an experience which is a therapy session, a situation and a learning process at the same time, Moll invites people to individually and collectively embody a machine learning-based ecosystem, in order to find ways to limit its impact and ultimately oppose it. As the artist argues, this is a call for new cultural rituals needed linked to critical reflection, awareness and action. There is no transhumanist angle in Moll's work, one should clarify; there is no interest in merging with the machine to extend human capacities. The analogue and embodied simulation that is attempted is only to reveal and possibly transform processes. Rosi Braidotti has argued that contemporary machines "capture and process forces and energies", standing for "radical relationality and delight as well as productivity".[14] Contemporary sovereign machines like AdTech confuse and distract, as they constantly deliver what one wishes for, predicting and exploiting the desire for more. AdTech, however, is still a communication system based on users' interaction and response, and this is where the potential for opposition still lies. Possibly, it will demand many collective try-outs, performative rehearsals and laborious attempts to provoke change; *Ad Tech Constellations* is surely one of them.

12 Ibid
13 Philip E. Agre, «Toward a critical technical practice: Lessons learned in trying to reform AI». *A Bridging the Great Divide: Social Science, Technical Systems, and Cooperative Work*. Edited by J. Bowker, L.Gasser, L. Star, & B. Turner. (Hillsdale: Erlbaum, 1997): 131-157.

14 Rosi Braidottti, The Posthuman (Cambridge/Malden: Polity Press, 2013): 92.