Press Release
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KW Institute for Contemporary Art launches *Open Secret*—an online program featuring sixteen newly commissioned artworks, articles by leading thinkers, and a manifold mediation program.

16 July – 31 December 2021

Featuring Nora Al-Badri, Maithu Bùi, Erick Beltrán, Tara Isabella Burton, Caroline Busta, Jennifer Chan, Wendy Chun, Joshua Citarella, András Cséfalvay, Inland (Ed Davenport), Constant Dullaart, Orit Halpern, Adam Harvey, Vladan Joler, Bea Kittelmann, Kateřina Krtilová, Lauren Lee McCarthy, Lukáš Likavčan, Jen Liu, Eva and Franco Mattes, Tom McCarthy, Lisa Messeri, Ramak Molavi Vasse'i, New Models, Lisa Rave, Rachel Rossin, Konstanze Schütze, Caroline Sinders, Dirk Sorge, Charles Stankievech, and others, as well as the AURORA School for ARtists, Jugendgremium Schattenmuseum, and MOTIF.

Curators: Nadim Samman (Curator, Digital Sphere) in collaboration with Katja Zeidler (Head of Education and Mediation).

The program

Open Secret (16 July – 31 December 21) is a six-month long online program that explores the image of the 'technological hidden' in our apparently 'open' society. With new contributions released on a monthly basis, the *Open Secret* website opensecret.kw-berlin.de will bring together art, automation, politics, and new patterns of exchange. The website is designed by Sometimes Always and will be made available from 16 July 2021 onwards.

Technology increases our access to knowledge, making the world more legible, while undermining ignorance and superstition. At least, that's what we are told. But it sometimes feels like we have entered a new dark age of black boxes. In computer science, a black box is a unit of software or hardware that interacts entirely through its interface. What happens inside it is opaque, veiled in shadow. Users of black boxes may only partially understand how they work, but can easily observe their effects in the world.

There is drama—desire, disappointment, and uncertainty—in coming to terms with these effects. As we make our way through a landscape of inscrutable machines, living the life they make for us, we attempt to deal with them through incommensurate means, projecting wishes, insecurities, and

analogies of what they might be onto them. Ours is a culture obsessed with the unseen, the inaccessible and the known-unknown.

Open Secret pursues this topic through numerous artistic commissions and a suite of essays by leading thinkers. Contributions will be released on a monthly basis, beginning 16 July 2021. Artworks will take the form of algorithms, bots, websites, videos and more, while the essays explore secrets, visibility, access, and exclusion.

The project expands to explore public formats dedicated to the critical reappraisal of digital infrastructures that organize civic life. Those encounters will take place in hybrid online-offline formats, and are realized in collaboration with a diverse group of interlocutors whose experience spans contemporary culture, technology, education, and accessibility. Key institutional collaborators for the public program will be the Jugendgremium Schattenmuseum, MOTIF (Katrin Fritsch and Helene von Schwichow), the AURORA School for ARtists, and more. The program will be additionally advised by a group of experts including Maithu Bùi, Ramak Molavi Vasse'i, Konstanze Schütze, and Dirk Sorge, along with art educators and KW team members. These meetings, which will for the most part be held in private, will then be published on the website towards the end of the project.

As part of KW's attempt to push online accessibility, the *Open Secret* website will release short videos in international sign language describing each contribution and the project in general. These videos will be in line with the conceptual approach of *Open Secret*: more than merely an additional medium, the videos will serve as additional sources of content, exhibiting the contradiction between the necessity of the signer's physical visibility and the value of resisting facial recognition algorithms. Additionally, the website will present a glossary, where keywords and terms from technology, arts, economics, and digital culture will be commented and described in short texts. This section will be updated throughout the project's duration and will eventually be compiled into an alternative reader for the project. It does not aim to present a 'neutral' definition of the terms it engages with, but rather functions as a subjective commentary based on each Glossary contributor's position and perspective.

Opening event:
Open Secret – The New Extractivism, and Escaping the Clearnet
Featuring Vladan Joler, Caroline Busta and Nadim Samman

16 July 21, 9:30 pm
Location: KW's Courtyard

A new form of extractivism defines life in the 21st century. It is one that reaches into the furthest corners of the biosphere and the deepest layers of human cognitive and affective being: the stack that underpins contemporary technological systems goes well beyond data modeling, hardware, servers, and networks. Today's full stack reaches into capital, labor, and nature, while demanding an enormous amount from each. Vladan Joler's newly commissioned video gathers different concepts and images of this 'new extractivism' together. They add up to a blueprint for a machine-like superstructure—a super allegory that encompasses the whole world.

Additionally, drawing from her newly commissioned essay for *Open Secret*, the author and critic Caroline Busta surveys prospects for Web 3.0. At the edge of the 'clearnet' (the part of the Internet that is publicly accessible) the 'dark forest' begins. This shadowy realm offers artists shelter, a place to create—away from tracking, trolling, hype, and formatted 'social' experiences. What can we learn from it?

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For press images, please write us at press@kw-berlin.de.

July 2021:
Project descriptions

Joshua Citarella
Choose Your Future, 2021

„*Choose Your Future* takes the hyperbolic political imaginings of young people, raised on the Internet, and puts those words directly into the mouths of content creators. In this way, the project mimics the process of signal amplification that occurs through social media, when radical takes move from the fringe and into the mainstream. Is this the complex analysis of the Rand Corporation? Or is it a teenager on Instagram who thinks it would be cool if these two labels were combined? I am interested in those two spheres exchanging information.

In 2021, I commissioned a group of artists and Gen Z-memers to write short wiki-style descriptions of improbable futuristic scenarios. To produce these texts, writers were instructed to copy/paste existing Wikipedia entries and to play 'mad libs' with the nouns, verbs, and dates. Drawing from political precedents and movements of the past, these short stories recombine history in order to anticipate long tail ideological factions that may emerge in the future. The clunky and stylistic prose shows tensions between competing editors and interpretations. The factional disputes can be read between the lines.

This project combines the creative efforts of some of the artists, memers, and content creators who have inspired me mostly over the past years."

Texts by: Margo Bergamini, Nick Bird, @cyber_reactionx, David Noel, Abbey Pusz, D.Z. Rowan and Joshua Citarella.

Read by: Caroline Busta, Mat Dryhurst, A.M. Gittlitz, Daniel Keller, Anna Khachiyan, Holly Herndon, Lil' Internet, Jack Wagner and Joshua Citarella.

– Joshua Citarella

Vladan Joler
New Extractivism, 2021

„A new form of *extractivism* defines life in the 21st Century. It is one that reaches into the furthest corners of the biosphere and the deepest layers of human cognitive and affective being: the stack that underpins contemporary technological systems goes well beyond the multi-layered 'technical stack' of data modeling, hardware, servers, and networks. Today's full stack reaches into capital, labor, and nature, while demanding an enormous amount from each.

This animation and accompanying diagram gather together different concepts and images of the new extractivism, proposing a semi coherent picture of the full stack. The concepts that it presents are mostly represented in the form of visual allegories. Dictionaries define allegory as a story, poem, or picture that can be interpreted to reveal a hidden meaning, typically a moral or political one. All of these allegories and concepts gathered here add up to a blueprint—for a machine-like superstructure; a super allegory that encompasses the whole world. What we have here is an almost fractal allegorical structure—an allegory within an allegory within an allegory […]."

– Vladan Joler

Eva & Franco Mattes
The Bots, 2021

„We know that everything we post on social media is screened and surveilled—reportable and deletable—and subject to 'community guidelines' and 'content restrictions.'
Whose community? Whose restrictions?
There must be some algorithm involved, right?
The Bots are no robots. They are human beings in offices. *The Bots* apply rules that they have received from elsewhere (perhaps from some other office, in California) while assessing your vacation photos, your uncle's pornography, your neighbor's glorifications of Hitler, your friend trying to make a living selling herbal teas, or your local MP's anti-immigrant diatribe.
Somewhere—let's say, in Berlin—people sit behind screens in drab office buildings and decide what stays and what goes. They are not supposed to speak to anyone about their job. The artists Eva & Franco Mattes have however tracked them down and convinced them to share their experiences.
Open Secret debuts three newly commissioned video works by the artists (in collaboration with writer Adrian Chen) based on the real confessions of Facebook content moderators. These videos borrow the aesthetics of fake make-up tutorials, which are sometimes used on social media to bypass censorship. Speaking to their smartphones, from their apartments, actors Jesse Hoffman and Irina Cocimarov perform versions of the interviews, combining the mundane levity of dressing up for one's followers with the equally mundane horror of online hate.
The Bots are true accounts, using words from the workers that social media keeps hidden."

– Eva & Franco Mattes

The videos were shot with support from DIS Magazine.

July 2021: Essays

Tara Isabella Burton
The Daemonic and the Aspirational Self

In 2018, the writer and chaos magick scholar Gary Lachman (previously a member of Blondie) published a book called *Dark Star Rising*—that traced the influence of occultists within modern right-wing politics. In it, he observed that interest in a belief system known as Traditionalism unites several major players in the reactionary ecosystem. Common to Russia's Aleksandr Dugin (an esotericist and fascist writer often referred to as Putin's Rasputin) and Trump's onetime right-hand man, Steve Bannon (a devotee of the Italian reactionary occultist Julius Evola), Lachman, claimed, was commitment to Traditionalism's core tenet: that a single font of secret knowledge, passed down through select initiates, lies behind all the world's major religions. For Lachman, as for the occultists of whom he writes, the world of magical and mystical forces and the world of elections and propaganda are inexorably intertwined. The magic of memes, like the chaos magick of an Aleister Crowley or the theosophy of a Helena Blavatsky, is a powerful, unseen force sustaining the universe.

At the core of Lachman's argument is the figure of Donald Trump himself: not as magician but rather as *golem* – a man-made being, common in Jewish rabbinic mythology, who exists to do the bidding of his makers. Catapulted into office by *meme magic*, Trump, Lachman argues, is less a human being in his own right than an amalgamated avatar of cultural consciousness, brought into being by the force of our collected cultural hunger for chaos—for a destruction of the old neoliberal order and its attendant institutions.

Whether or not we are occultists, we can see in Lachman's interpretation of propaganda as a form of magic something about the world of modern Internet culture. Even as it (somewhat mysteriously) influences our 'real-world' economic and political lives, contemporary Internet culture is itself governed by unseen forces: literalizations of collective conscious and unconscious desire.

I do not mean this merely in the sense famously promulgated by Arthur C. Clarke, who wrote in 1962 that "any sufficiently advanced technology is indistinguishable from magic." Magic is *not* simply what we call technology before we understand it.

Rather, in modern internet culture, in the creation of digital avatars, in the freewheeling veneration of self-making, in the 'attention economy' that has come to permeate nearly all aspects of our social, sexual, and economic lives, we see a literalization (and an exteriorization) of a truth already inherent within the liberal-capitalist, post-Enlightenment understanding of the self. Our essence, on this account, is *want.* Our desires render us more than merely machines.

Without making any claims about the metaphysical status of this desire, we can nevertheless argue that, from a functional perspective, *want* takes the place occupied in other religious or spiritual semiotic systems by the soul: an unseen but constitutive force of the self. The forces by which it manifests itself in society are likewise invisible, but they are the foundation of our cooperation with one another. They are functionally equivalent to magic.

In this ostensibly secular modern vision, we do not have *souls,* exactly—in the sense of something entirely separate from our bodies, or as something embodied but nevertheless not purely material. So what, in this view, makes us human beings, rather than simply human animals? Where is the

ghost in our machines? The answer, in late Internet culture, is in our *aspirational* selves: the selves constituted by our embodied present, rather than our imagined futures.

To this inchoate quality we grant a kind of mystical power, a metaphysical weight. Our desires are at the core of our 'authentic' selves: they make us who we 'really' are. This quality is not static but dynamic: it is what we want, what we hunger for, what we desire, what we *aspire* to, in the sense of what we breathe life into, and what breathes life into us. This aspirational self is the apotheosis of the capitalist project: the self whose desires govern not merely its own action but the entire social and economic apparatus. If we have a *telos,* in this schema, it is to achieve that which we aspire to. It is, furthermore, to decide—through the magical action of will—*what* we aspire to in the first place. Self-making is our ultimate aim: deciding what to want, and then pursuing that desire.

Under the rule of the aspirational self, we are 'authentic'—most ourselves—when we embrace and celebrate our desires, which are more true of us than those qualities that are seen as contingent (given to us by circumstance—such as class, gender, or culture). In *The Ethics of Authenticity*, the political philosopher Charles Taylor argues that the tensions of contemporary modernity are defined by such romanticization of the 'authentic' self (and by the link of this authentic self with our aspirations). I want to go even further: While this 'authenticity' is akin to a secular soul, with both a concrete non-physical status and distinct creative powers, it is not only a part of ourselves as human animals, but the prime non-physical motivating force within our world. Aspiration, in other words, is *magic*. Magic, but of a daemonic kind: it creates from nothing; it transforms; it allows us to remake ourselves in the images we crave. It is the hidden hand. It is the *glamour* that transforms. It is the very breath in our lungs.

Enter the World Wide Web. An entire system predicated on the illusion of disembodiment; a space for avatars and memes, online shopping and catfishing; for swiping and sexual gratification, divorced from the flesh. Online space is where our desires take shape, if not weight. It is where we can be anybody, where we can buy anything, where we can transform our faculties of attention into a commodity, through advertising and the clickbait economy that accompanies our entertainment. Here, attention is bought and sold: through clicking on the *right* kind of articles, through sharing the *right* kind of headlines to the *right* kind of friends on social media, through posting photographs of ourselves or pithy career-boosting jokes. Or else, through the no-less aspirational pleasure of subscribing to a beautiful woman's OnlyFans—burlesqueing intimacy as she allows us to imagine ourselves in her company. It is a carnival funhouse universe: a place where desires—untethered from geography or facticity—can be, if never *fully* fulfilled, at least temporarily sated. It is, no less than Avalon, Atlantis, the Goblin Market, or any other parallel fairyland that one arrives at by mistake, a magical universe. But, like all fairylands, ours has a catch.

The daemonic deal is never resolved in our favor. The fantasy of the aspirational self is that we have ultimate freedom: freedom to decide who we will be and to live our lives according to our wants. What could be truer to ourselves? But do we *really* decide what we want? Are our desires really the most authentic parts of us—the arena of life in which we are more concretely free? St. Augustine, for one, did not think so. For him, as for centuries of Christian theologians, it is precisely in the disordered nature of our desires, the way in which we want *what we should not* and will *what we do not want*, and do not understand why we want what we want (at all), that we find the root of sin.

Whether or not we agree with Augustine, we must confront the fact that our desires are never fully *sui generis.* We never know if what we want is what we *actually* want, or *what we think* we want. And what is the difference between the two? Is our desire to smoke a cigarette more *real* than our desire to be able to run a marathon? What does *desire* mean when desires are conflicting, or when we want something in the short term that we know is bad for us in the long-term?

Beyond this, we are all taught *what* to want. Despite the fact that we often code desires as primordial or intrinsic—setting them up in a Freudian binary against the 'civilizing' repressions of culture—our desires arrive mediated by that same culture. We are, after all, contingent individuals who live in a society where the understanding of ourselves, our neighbors, and our surroundings

is mediated through a cultural repository (of stories, images, and narratives). We access our notionally 'primordial' desires only through the refraction of the narratives we have available to us. Few people would want a blue ribbon or gold-colored trophy in the abstract. What is important is that they represent the winning of a first prize in a tournament. It's the same with the coded language of status symbols—the Rolls Royce, the Birkin bag—where desires are only legible in terms of our shared understanding of what they represent.

But less obvious desires function this way, too. Consider a man who falls in love with a conventionally beautiful woman who possesses a degree from a name-brand university. He may experience his love for her as genuine; his sexual attraction may also feel innate. But is he even able to recognize her? Does he love her for who she is, or simply because she conforms to qualities that he knows are valuable, and which in turn render him valuable as her ostensible conqueror? We often want what others want—that which we learn is good (or prestigious) to want. Our desires—as René Girard has so often written—are *mimetic*.

In the world of memes, where we can see this desire distilled into easily calculable likes and follows, we are all the more vulnerable to the formation (and reformation) of our desires. We learn what is 'desirable' on a mass scale, and it shapes what we, personally, want. In this, we are aided by the algorithms that follow us around the internet, coaxing us with images of products that other people in our marketing demographics have wanted in the past. In this situation, whatever authenticity our desires might have had in a hypothetical state of nature is already lost; our aspirational souls have already been enchanted by forces outside ourselves.

Today, we define ourselves by wants that we do not, in fact, control. Far from being our souls, our aspirations have become our chains. At first glance this state is nightmarish. It suggests that we lack any will or autonomy. But such bondage to desire doubles as a potential for intimacy. We are all, as the mystic Father Zosima tells Alexi Karamazov, responsible to one another for everything. We—perhaps even without meaning to—shape the desires of others, even as our own desires lie beyond our exclusive control. It is a power much greater (and more dangerous) than will alone; it is one we did not (and cannot) choose.

The great irony of the aspirational self is that our power to self-create is limited, while our power to form others is terrifying. We are at our most powerful not when we create our own images, but when we meme others into beliefs, desires, realities. A recent *Huffington Post* article, chronicling the ubiquity of FaceTune (an app that edits photos, largely to make its subjects adhere to conventional models of beauty) among young women reports that nearly all of those who got addicted to the app did so after seeing it used on perfectly-proportioned women online. In this respect, each woman who went on to post a FaceTuned selfie became part of a demonic multi-level-marketing scheme—responsible, in turn for those who went on to use the app.

It may be difficult, in today's Internet-saturated attention economy, to escape this cycle altogether. But in recognizing the responsibility that we have, for and to one another, we may be able to re-conceptualize our relationship with the Internet, learning to relate to it not as a canvas on which we can create ourselves, but as a web through which we can work to liberate one another, a vehicle for social rather than individual transformation.

In shaping others' desires, we shape part of who they are. It is a magic power we did not ask for. But it may be the one we have to use.

Caroline Busta
Losing yourself in the dark

If one were to imagine a spatial layout of the internet—not the cables and satellites and server farms (albeit fascinating to map in their own right), but the metaverse—what does one see? On screen, professional emails and personal DMs coexist with public tweets, pirated movies and notarized tax documents, each separated by millimeters. We accept this. Our devices are just the user-level portals to the digital beyond. But what does this beyond look like? What are its regions? How does one travel between these spaces psychologically or, moreover, psycho-geographically?

In the past year, our analogue neighborhoods came to feel like the backstage to everything that was happening 'virtually' (if such a distinction still has any meaning). With all 'non-essential' activity turning online-only, bodies outside the screen were newly free to look and do as they pleased. Dress twenty-something and gothy one day, middle-aged professional the next. Out for a jog? Pass the teens synchronized-dancing in 15-second bursts. Observe their indifference as an onlooker irony-posts this performance to her own gram. The teens don't care because their primary audience will never see this passerby's content. And although they're neighbors in the analogue world, the teens and the passerby will likely never knowingly meet online, physical proximity being incidental to spaces of digital belonging. Both parties have become cyber-local-prime, their 'regional' communities algorithmically organized into groupings of similar market-profiles regardless of the geographical distribution of their members.

So how do we map this, and how do we understand the communities that form in each space? What affordances and pressures define the various digital neighborhoods and what kinds of environments do they produce? Creators featured in KW's Open Secret are no doubt aware of these questions, encountering them as they carve out enclaves beyond Web 2.0. By this, I mean digital spaces that are not indexed by mainstream search engines and that do not strictly correlate users with their government-registered selves. This *sub-clearnet* (i.e., non-Facebook, Instagram, Twitter) strata of the internet is growing rapidly, changing the shape of the social web in turn.

To start we might consider how, for the past 15 years, the internet that most users know has been built around the individual as the smallest divisible unit—the user as pixel (contrast this to the pre-millennial television era where, despite attempts to further differentiate it, the household was functionally the base particle). Since the mid-00s, 'going online' has meant logging on and being automatically fed a personalized world: your personalized Google search, your personalized news feed, your profile page, your follower count, your private messages, new posts tagging *you*. And what could be more engrossing than a digital mirror? TV is full of other people. But on the internet, *you* are the center of the universe—as if in a reverse Copernican turn. Meanwhile, smart devices with their casual 'i's (styled lowercase, like the tech-overlord presenting to shareholders in a t-shirt) have not only reinforced the illusion of one's personal gravitational pull, they've successfully individuated the capacity for productivity and attention of each user so that they can be hyper-efficiently utilized (not to say exploited) by third party commercial entities. In this way, Margaret Thatcher's famous creed—"Who is society? There is no such thing! There are individual men and women"—was supplied with its perfect tech.

But it turns out that when 53% of the world's population fragments into 4.2 billion i-pixels[1], we find ourselves much more vulnerable to top-down extraction, peer-to-peer competition, and the illusion of agency through swarm-like formations that, given this infrastructure, ultimately serve the goals of the platforms more than those driving the swarm. However, it also turns out that this is *not* the only internet.

As a way of imagining other internets, let's first give the one that is presently hegemonic two more dimensions:

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[1] As of January 2021, global internet penetration reached 59.5 percent, with 53% of the world's 7.9 billion people active on social media. Per: https://www.statista.com/statistics/617136/digital-population-worldwide

If one key parameter for mapping online space has been how the online space isolates and regroups its users (the individual-user-as-pixel isolated from its physical surrounds placed within a new digital local according to shared consumer profiles), the surface web / deep web schema has been another. Proposed in 2000 by information scientist Michael K. Bergman, the 'deep web' model of the internet entered more popular use in the following years with the rise of illicit digital marketplaces and the broader adoption of Tor, Hushmail, and other tools for encrypted web communication.[2] At some point, Bergman's initial illustration of a fishing trawler sitting atop the ocean gave way to the now well-circulated (and thoroughly memed and *détourned*) 'iceberg' diagram of the internet: above the water's surface, the peppy sans serif logos of mass platforms in primary colors in full sunlight; immersed just below, WikiLeaks, 4chan, and dark marketplaces such as PirateBay and SilkRoad, before the berg descends into more sordid and depraved forms of encrypted internet use. In the popular imagination, this y-axis—spanning Instagram-your-brunch to file-sharing-snuff—illustrates the user-pixel's possible range of motion.

A third basic parameter is the geopolitically specific digital 'stack' one must use to access the surface web (or *clearnet*). Users in China, for instance, do so via the BAT stack (Baidu, Alibaba, Tencent). In the US (and by extension, other NATO member-states and official Global Partners), the *clearnet* runs on GAFA (Google, Apple, Facebook, Amazon). In Russia and many post-Soviet regions, mail.ru (Vkontakte, Odnoklassniki) and Yandex define this mainstream online space. Meanwhile, residents of the global south connect via a patchwork of these aforementioned platforms as each vies for market dominance. Whatever the physical location of the entity supplying your internet connection (unless using a virtual private network to circumvent your local ISP), your *clearnet* activity—social media use, web searches, map services, shopping, etc—will be automatically bound by the digital stack that governs that region. It suffices to say that this, in turn, very efficiently shapes the way each region's users perceive the world.

From these three vectors, we can start to imagine some kind of spatialization of the mainstream internet: the user as pixel, active along a y-axis running from the *clearnet* to deep web spaces, accessing them via a particular geopolitical digital stack (encryption workarounds notwithstanding).

But this model is insufficient for understanding our place within the broader (non-'you') internet and how we are as various 'we's online—communities that may share multiple enclaves along the vertical iceberg axis. It also perpetuates old conceptions of how online space is organized, which limits our ability to autonomously (non-algorithmically) find content—and each other.

Recently, something called the 'Dead Internet' theory has emerged from 4chan's /x/ board. Its premise is that the indexable (i.e., *clearnet*/surface) web is a "bloated corpse," a sprawling, listless entity swollen with auto-generated content and fake profiles. Proponents of this concept note that "compared to ten years ago, the internet feels … empty."[3] Personally speaking, I think it does too—which should be unnerving given that, ten years ago, it contained half as many (2.1 billion less) users.[4] But what if the *clearnet* platforms are just organizing us differently or filtering who we see more intensely than they were 10 years ago (siloing us into increasingly homogenous groups); and what if, simultaneously, we're simply not active online in the same way we were then? What if, as social media has come to resemble stretches of strip malls anchored by mega-churches, users are spending more time in the *sub-clearnet* zone, beneath the water's surface or—to use a different metaphor—in the dark forest,[5] where one can forage for content semi-anonymously rather than

[2] See: MK Bergman, "The Deep Web: Surfacing Hidden Value," Taking License (Aug. 2001) https://doi.org/10.3998/3336451.0007.104. The iceberg diagram first gained traction on Web 1.0 messageboard sites like bodybuilding.com, particularly with the rise of darknet marketplaces.

[3] See also: Pseudiom's video Dead Internet Theory, The Internet is Empty, April 2021 https://www.youtube.com/watch?v=BEIZHlfjAT8 and @IlluminatiPirate, "Dead Internet Theory: Most of the Internet is Fake," Agora Road forum, January 5, 2021 https://forum.agoraroad.com/index.php?threads/dead-internet-theory-most-of-the-internet-is-fake.3011/

[4] https://www.pingdom.com/blog/internet-2011-in-numbers/

[5] "Dark forest" is a term coined by Yancey Strickler in 2019 after Liu Cixin's 2008 SciFi novel by this name. https://onezero.medium.com/the-dark-forest-theory-of-the-internet-7dc3e68a7cb1

having it forcefed algorithmically. What if the issue isn't with the internet being un/dead but with our working model of it being outmoded?

I'm not totally sure what this new model would look like—and I recognize that there is some benefit to keeping things obscure (and thus less easy to recuperate)—but here are some notes that might be useful in sketching out alternate forms:

Individuals are not at the center of the internet; industry is

Human users account for only a fraction of global web use, and our *clearnet* access is made possible not because it's some inalienable human right but because our presence there is itself a commodity. Framed this way, it's interesting to think about how social media data runs through the same fiber optic cables as data governing oil refineries, waste management systems, power grids, and shipping logs (among other industrial IoT tech), as well as massive amounts of data generated by financial markets, scientific research centers, governments, and so on. Representing the social web as just one component of a spectrum of global connectivity might help us think outside of the hegemonic idea of the internet as *you*-centered and also demystify the Earth-scale systems that are both monitoring and changing the planet.

The *clearnet* is a b2b ecosystem not conducive to individual human life

In recent years, *clearnet* platforms have nudged users toward a personal-professional status (blue checkmark certification, prosumer "creator dashboards")—which honestly makes sense—given the degree to which users are scrutinized (by both platform bots and other humans) and held accountable for what they say (online), not to mention the expectation that users self-financialize, leveraging their private lives for platform success. Rather than lamenting this, we could instead simply acknowledge that social media is not the personal, local space that it presents itself as, but an explicitly professional, airport-like non-place for performing the "minimum viable spectacle" (Peter Limberg, founder of the online community The Stoa) necessary for reminding the world wide web that you exist (and are available to work). On this speculative new map, we could imagine social media represented more like a grand bazaar, with lanes of kiosks, grouped roughly by trade, displaying representative works to passersby. At the back of the mini-shop is a trap door with stairs leading to a sub-basement where deals can be done. This sub-basement is connected to other sub-basements and ultimately reaches out to the edge of the medina where a neutral commons allows workers, children, and older people to interface directly, unmediated by the protocols of the bazaar.

The smallest divisible particle may be the individual user, but "individuals" can also be run by groups.

This is the essence of incorporation. And if the *clearnet* is asking us to function as corporate entities, there is no reason, especially in the era of the lowercase 'I,' that incorporation can't be casual, too. Finstas do this already, with multiple anonymous users posting to a shared account. In MMO, gaming success is shared and depends on support from one's guild. With the rise in dark forest creator communities such as New Models and Joshua Citarella's Super Secret Sleeper Cell, users have the option to avoid being personally indexed on the *clearnet* and can instead air their ideas as part of a collective voice. This engenders more experimental thinking because the consequences of a bad take are buffered by the collective shell and the benefits of a viral take are shared rather than building the singular celebrity of (and thereby further isolating) any individual member. This is an interesting exploit of the hegemonic map of the internet, as it calls for 'overclocking' the "1 'i' = 1 individual" formula that underpins *clearnet* economics.

We need a neutral commons

Without light that leaks in from the mainstream, dark forest communities can become myopic and atrophy. There needs to be a selectively-permeable barrier between the *clearnet* and the dark forest, but also a place for various dark forest communities to communicate with each other. Web

2.0 social media is currently the default commons. Yet there is little tolerance on mainstream platforms for transgressive expression and tripping the censors can get you indefinitely shadowbanned (i.e. in the dark, without light) or worse. This is true of both the GAFA stack and the BAT stack despite their ideological opposition. One simple solution for this is to embrace DIY printing; for instance, one could periodically precipitate a physical object from a community's online activity and allow that object to circulate through IRL social networks. But it would also be cool if guilds of dark forest communities could come together to build independent digital commons as well. Perhaps the affordances of Web3—where community stakeholders can collectively direct an enclave's financial resources toward a shared goal—will help facilitate this in the near future.

In practice, the new map will be continuously changing, waxing and waning in complexity as the internet continues to evolve. For now, though, the most important thing may first of all be to make the maps messier, undo the closed loops, venture away from the *you*-centered internet and get lost amid the more unhinged data flows—both on- and offline.

Biographies

Nora Al-Badri is a multi-disciplinary and conceptual media artist with a German-Iraqi background. She graduated in Political Sciences at Goethe University in Frankfurt am Main and is currently the first artist-in-residence at the École Polytechnique Fédérale de Lausanne, EPFL (AT) and its Laboratory for Experimental Museology (eM+). Her practice focuses on the politics and the emancipatory potential of new technologies, such as machine intelligence or data sculpting, non-human agency, and transcendence. She has exhibited in the Victoria and Albert Museum's Pavilion of Applied Arts at La Biennale di Venezia; 3rd Istanbul Design Biennial; ZKM | Center for Art and Media Karlsruhe; Science Gallery, Dublin; Berliner Herbstsalon at Maxim Gorki Theater, Berlin; Ars Electronica, Linz (AT); Abandon Normal Devices (AND), Manchester; The Influencers, Barcelona; among others.

Al-Badri regularly gives classes and lectures at universities and museums all over the world such as Techne Institute at University of Buffalo (US); MassArt – Massachusetts College of Art and Design, Boston (US); Universität der Künste Berlin; KTH Royal Institute of Technology, Stockholm; University of Halle (DE) and IRIBA Center for Multimedia Heritage, Kigali; Warburg Institute, University College London; Haus der elektronischen Künste Basel (HeK); as well as Central Saint Martins College of Art & Design, London. She is acting as jury member for the Chaos Communication Congress' Arts & Culture Track, the Berlinale Peace Prize from Heinrich Böll Foundation (2019) and the Digital Academy Dortmund (2019).

Maithu Bùi is a việt-German philosopher, research activist and artist. After studying philosophy of language, logic and literature at LMU Munich, Maithu Bùi has been studying art at University of the Arts Berlin in the Lensbased Class since 2017. Their research and work focuses on Creative Technologies, Ethics of Technology, Memory Culture, War History, (Digital) Colonialism, Context Sensitivity, Truth and Belief Systems, Education Policy and Anti-discrimination. Their work *Maithuật - MMRBX* (2019-ongoing) is an AR/VR archive of personal memories and transgenerational traumas. Stories begin and end where ghosts can be encountered in a virtual việt-german diaspora. Their work *Biolum Thunder Sweep* is an anti-war project to eliminate mines and explosive remnants of war using bioengineering.

Maithu Bùi co-founded Curating through Conflict with Care (ccc) and works at the German Informatics Society in the Sustainable and Digital Education Department.

Erick Beltrán's work is a constant investigation into and reflection on the mechanisms of thought systems, particularly the power relations unfolding between editing processes and ways of knowledge production. From diagrams, information gathering, archives, and insertions into the media, it approaches the way in which images are defined, valued, ordered, classified, selected, reproduced, and distributed to create political, economic, and cultural discourses in contemporary society. Beltrán experiments with the link between public art and diverse graphic languages investigating the museum, library, and the archive as forms of visualizations. Beltrán has exhibited at El Eco Museum and Muac – University Museum of Contemporary Art, Mexico City; Liverpool Biennial; Galeria Labor, Mexico City; Halfhouse, Barcelona; Volt, Bergen (NO); La Tallera, Cuernavaca (MX); Cuenca Bienal; Kadist Foundation, Paris; Museo Rufino Tamayo, Mexico City; Sao Paulo Bienal; TBA21 Thyssen-Bornemisza Art Contemporary, Vienna; Taipei Bienal; MACBA Museum of Contemporary Art of Barcelona.

Tara Isabella Burton is the author of the novel *Social Creature* (Doubleday, 2018) and the nonfiction book *Strange Rites: New Religions for a Godless World* (PublicAffairs, 2020). Her next novel, *The World Cannot Give,* will be published by Simon & Schuster in March 2022. She is

currently working on, *Self-Made*, a history of self-creation from Leonardo Da Vinci to the Kardashians, to be published by PublicAffairs in 2023. She has also written for *The New York Times*, *The Wall Street Journal*, *The Washington Post,* and more. She is a recipient of the 2012 Shiva Naipaul Memorial Prize and a 2020 Robert Novak Fellowship.

Caroline Busta is a Berlin-based writer working with questions of culture, technology, and globalism. She is the founder of NEW MODELS, a media platform and community addressing the emergent effects of networked technology on art, tech, politics, and pop-culture. From 2014 to 2017, she served as Editor-in-Chief of the Berlin-based critical art journal *Texte zur Kunst.* Prior to that, she was an Associate Editor at *Artforum* magazine in New York City.

Jennifer Chan uses the Internet as a source to remix videos as social commentaries on sex, love, desire, equality, wealth, and various kinds of mediated ideals, which will not be met in real life. She has had solo presentations at Transmediale, Berlin; Images Festival, Toronto (CA); Nightingale, Chicago (US); and Future Gallery, Berlin. Chan has shown at Moving Image, London; Trinity Square Video, Toronto; Interstate Projects, New York City; ltd, Los Angeles; and Xpo Gallery, Paris. Her work has been featured on *Rhizome*, *Furtherfield*, *Sleek*, *Dazed*, and *LEAP*.
Chan was born in Ottawa (CA), grew up in Hong Kong, and now lives in Toronto. Chan holds an MFA in Art Video from Syracuse University (US) and an HBA in Communications, Culture, Information Technology.

Wendy Hui Kyong Chun, PhD, is Simon Fraser University's Canada 150 Research Chair in New Media, Burnaby (CA) and leads its Digital Democracies Institute. She is the author of several works including *Discriminating Data*(forthcoming from MIT 2021) plus three other books from MIT: *Updating to Remain the Same: Habitual New Media*(2016), *Programmed Visions: Software and Memory* (2011), and *Control and Freedom: Power and Paranoia in the Age of Fiber Optics* (2006). She has been Professor and Chair of the Department of Modern Culture and Media at Brown University, Rhode Island (US), where she worked for almost two decades. She has held numerous visiting chairs and fellowships, from institutions such as Harvard, the Annenberg School at the University of Pennsylvania, the Institute for Advanced Study (Princeton), the Guggenheim, ACLS American Council of Learned Societies, and American Academy of Berlin. She is also Principal Investigator on several grants including one from the Canada-UK Artificial Intelligence Initiative.

Joshua Citarella is an artist researching online political subcultures. He is the author of *Politigram & the Post-left* (2018) and *20 Interviews* (2020), commissioned by *Rhizome*. He is the host of Memes as Politics on Montez Press Radio in New York. Recent solo exhibitions include Bas Fisher Invitational, Miami (FL); the Corcoran School of the Arts and Design at George Washington University (DC); and Higher Pictures, New York City. He earned his BFA from the School of Visual Arts, New York City in 2010. He is an adjunct professor at the Rhode Island School of Design and the School of Visual Arts, Providence (US); and has served as an outside advisor at Carnegie Mellon University, Pittsburgh (US) and Tufts University, Medford (US). He lives and works in New York City.

András Cséfalvay is a visual artist and filmmaker based in Bratislava. His work concerns ways of balancing and reframing the duality of Nature and Culture, while evaluating marginalized representations of the world and the relationship between natural sciences, politics, art, and religion. He is a founding member of Digital Arts research platform at the Bratislava Academy of Fine Arts.

Inland (Ed Davenport) is a British producer, DJ, and founder of Counterchange Recordings based in Berlin. His busy output stands for purist and inherently progressive rhythmic work. Grounded in the romantic traditions of early techno, it is however driven by a constant search for new ground, textures, and studio-techniques. Known for his detailed and explorative techno releases on Counterchange, Infrastructure, and more, his debut LP on Ostgut Ton sub-label A-TON was released in September 2018. In recent years, Davenport has undertaken soundtrack collaborations with artists including Julian Charrière and Wermke / Leinkauf.

Constant Dullaart's often conceptual work manifests itself both on- and offline. In his artistic practice, the Dutch artist reflects on the broad cultural and social effects of communication and image processing technologies while critically engaging the power structures of mega corporations that dramatically influence our worldview through the Internet. He examines the boundaries of manipulating Google, Facebook and Instagram and started his own tech companies Dulltech™ and https://common.garden.
Constant Dullaart is a former resident of the Rijksakademie in Amsterdam. His works were shown in Museum of Contemporary Art Chicago (US); Whitechapel Gallery, London; Schirn Kunsthalle Frankfurt (DE); Utah Museum of Contemporary Art, Salt Lake City (US); ZKM | Center for Art and Media Karlsruhe (DE); Victoria & Albert Museum, London; and MAAT – Museum of Art, Architecture and Technology, Lisbon; among others. Dullaart has curated several exhibitions and lectured at universities and academies throughout Europe, most recently at Werkplaats Typografie, Arnhem (NL). He lives and works in Berlin and Amsterdam.

Orit Halpern, PhD, is an Associate Professor in Sociology and Anthropology at Concordia University, Montreal (CA). Her work bridges the histories of science, computing, and cybernetics with design. She is currently working on two projects: the first is a history of the relationship between artificial intelligence, race, neo-liberal thought, and democracy; the second project examines extreme infrastructures and the idea of experimentation at planetary scales in design, science, and engineering. She is also the director of the Speculative Life Research Cluster and D4: The Disrupting Design Research Group, both are laboratories bridging the arts, environmental sciences, media, and the social sciences.

Adam Harvey is a German-American applied artist and technical researcher based in Berlin focusing on computer vision, privacy, and surveillance. He is a graduate of the Interactive Telecommunications Program at New York University (2010) and is the creator of the VFRAME.io computer vision project, Exposing.ai research project, and CV Dazzle computer vision camouflage concept. Harvey's research and artwork has been featured widely in publications including the *New York Times*, *Wall Street Journal*, *Nature*, *New Yorker*, *Economist*, and *the Financial Times*; and shown at internationally acclaimed institutions and events including the Victoria & Albert Museum, London; Seoul Mediacity Biennale; Istanbul Design Biennial; Frankfurter Kunstverein (DE); Zeppelin Museum, Friedrichshafen (DE); Utah Museum of Contemporary Art, Salt Lake City (US) and Kemper Museum of Contemporary Art, Kansas City (US). Recently, Harvey developed VFRAME, a computer vision project for human rights researchers working on OSINT investigations. VFRAME received an Award of Distinction from Ars Electronica in 2019, a nomination for the EU STARTS prize in 2018, and for the Beazley Design of The Year Award in 2019.

Vladan Joler, Prof., is an academic, researcher, and artist whose work blends data investigations, counter-cartography, investigative journalism, writing, data visualization, critical design, and numerous other disciplines. He explores and visualizes different technical and social aspects of algorithmic transparency, digital labour exploitation, invisible infrastructures, and many other contemporary phenomena in the intersection between technology and society. He has curated and organized numerous events and gatherings of Internet activists, artists, and investigators, including SHARE events in Belgrade and Beirut. His artistic pre-history is rooted in media activism and game hacking. Joler's work is included in the permanent collections of the Museum of Modern Art

(MoMA), New York City; the Victoria & Albert Museum, London; the Design Museum, London, as well as in the permanent exhibition of the Ars Electronica Center, Linz (AT). His work has been exhibited in more than a hundred international exhibitions, including institutions and events such as: ZKM | Center for Art and Media Karlsruhe (DE); XXII Triennale di Milano (IT); HKW Haus der Kulturen der Welt, Berlin; Vienna Biennale; Victoria & Albert Museum, London; Transmediale, Berlin; Ars Electronica, Linz; Biennale WRO, Breslau (PL); Design Society, Shenzhen (CN); Hyundai Motorstudio, Peking; MONA Museumpedagogy and Augemented Reality, Hobart (AU), various European cities; GlassRoom; La Gaîté Lyrique, Paris; the Council of Europe, Strasbourg (FR); and the European Parliament, Brussels. Joler has received the 2019 Design of the Year Award by the Design Museum, London and the S+T+ARTS Prize '19 Honorary Mention by the European Commission and Ars Electronica.

Kateřina Krtilová, PhD, is a researcher at the Zurich University of the Arts, focusing on aesthetics and media theory. She also coordinates the PhD program "Epistemologies of Aesthetics Practices" (ZHdK, University of Zurich and ETH). She received her PhD in 2017 from Bauhaus-University, Weimar, with a dissertation on Vilém Flusser's media philosophy and initiated and coordinated several international projects in media philosophy, among others the DFG funded research project 'Positions and Perspectives of German and Czech Media Philosophy'. Recent publications include *Praxis und Medialität*, Internationales Jahrbuch für Medienphilosophie, Band 5 (2019), ed. together with Dieter Mersch; "Medienanthropologische Szenen. Die *conditio humana*" in *Zeitalter der Medien* (2019), ed. together with Christiane Voss and Lorenz Engell; "On the Practice of Theory. The Technological Turn of Media Theory and Aesthetic Practice of Media Philosophy" in *Practical Aesthetics* (2020); "Can We Think Computation in Images or Numbers? Critical Remarks on Vilém Flusser's Philosophy of Digital Technologies", in *Flusser Studies 22* (2016).

Bea Kittelmann is an interdisciplinary artist, currently focusing on graphic design and illustration. In their artistic practice, Kittelmann consequently puts fun first and is less interested in rules and limitations. Instead, it is much more about perceiving and acknowledging the existence of these rules, in order to ultimately be able to reject and break them. Kittelmann is currently studying Visual Communication at the Weißensee Kunsthochschule Berlin.

Lauren Lee McCarthy is an artist examining social relationships in the midst of surveillance, automation, and algorithmic living. She is a 2020 Sundance New Frontier Story Lab Fellow, 2020 Eyebeam Rapid Response Fellow, 2019 Creative Capital Grantee, and has been a resident at Eyebeam, New York City; ZERO1, San Francisco; Frank-Ratchye STUDIO for Creative Inquiry, Carnegie Mellon University, Pittsburgh (US); Autodesk, Mill Valley (US); Interactive Telecommunications Program at New York University; and Ars Electronica, Linz (AT). Her work *SOMEONE*was awarded the Ars Electronica Golden Nica and the Japan Media Arts Social Impact Award, and her work *LAUREN*was awarded the IDFA DocLab Award for Immersive Non-Fiction. Lauren's work has been exhibited internationally, at places such as the Barbican Centre, London; Fotomuseum Winterthur (CH); Haus der elektronischen Künste Basel (CH), ACM SIGGRAPH, in various locations; Onassis Cultural Center New York; IDFA DocLab, Amsterdam; Seoul Museum of Art; and the Japan Media Arts Festival. She is the creator of p5.js, an open-source programming language for learning creative expression through code online. She helps direct the Processing Foundation, a non-profit whose mission is to promote software literacy within the visual arts, and visual literacy within technology-related fields—and to make these fields accessible to diverse communities. Lauren is an Associate Professor at UCLA Design Media Arts, Los Angeles.

Lukáš Likavčan is a Slovak philosopher focused on technology, ecology, and visual cultures. He studied Philosophy at Masaryk University, Brno (SK), where he is currently concluding his PhD studies in environmental humanities, and Sociology at Boğaziçi University, Istanbul. As a researcher, he was based at Wirtschaftsuniversität Wien, The Hong Kong Polytechnic University, and BAK – basis voor actuele kunst, Utrecht (NL). Likavčan is a lecturer at Center for Audiovisual

Studies FAMU, Prague; faculty member at Strelka Institute for Media, Architecture and Design, Moscow; and a member of Display – Association for Research and Collective Practice, Prague. He is a co-editor of the Czech anthology of contemporary philosophical realism *Mysl v terénu. Filosofický realismus ve 21. století* (2018), and an author of *Introduction to Comparative Planetology* (2019).

Jen Liu is a visual artist based in New York, working in video/animation, choreography, genetically engineered biomaterial, sculpture, and painting to explore national identities, gendered economies, neoliberal industrial labor, and then re-motivating of archival artifacts. She builds fictional worlds from multiple lines of research, fabricated narratives that speak to contested accounts of the past and present. She is a 2019 recipient of the Creative Capital Award, 2018 LACMA Art +Technology Lab grant, and 2017 Guggenheim Fellowship in Film/Video. She has presented work at The Whitney Museum, MoMA, and The New Museum in New York City; Smithsonian American Art Museum, Washington DC; Royal Academy and ICA in London; Kunsthaus Zurich; Kunsthalle Wien; the Aspen Museum of Art (US); Henry Art Gallery, Seattle (US); MUSAC, Leon (ES); UCCA Peking, Times Museum Guanzhou, (CN); and the 2014 Shanghai Biennale and 2019 Singapore Biennale.

Eva & Franco Mattes are an Italian artist duo based in New York City. They make work that responds to and dissects our contemporary networked condition, always approaching the ethics and politics of life online with a hint of dark humor. Group exhibitions include Sharjah Art Foundation (AE); SFMOMA, San Francisco; Athens Biennale; Mori Art Museum, Tokyo; Museum of Contemporary Art, Chicago; Biennale für aktuelle Fotografie, Mannheim (DE); Biennale of Sydney; Whitechapel Gallery, London; Minneapolis Institute of Arts (US); Sundance Film Festival, Salt Lake City; MoMA PS1 and Performa in New York City; National Art Museum of China, Beijing; The New Museum, New York City and Manifesta 4, Frankfurt (DE). In 2001, they were among the youngest artists ever included in the La Biennale di Venezia. Survey exhibitions of their work have been held at Fondation PHI, Montreal (CA), and at Fotomuseum Winterthur, Zurich 2021. Past solo exhibition venues include Nassauischer Kunstverein Wiesbaden (DE); Team Gallery, Los Angeles; Essex Flowers and Postmasters Gallery, New York City; Carroll/Fletcher Gallery, London; and Site Gallery, Sheffield. Their works can be found in the collections of the SFMOMA, Whitney Museum of American Art, Fotomuseum Winterthur (CH), X Museum, and the Walker Art Center (US).

Tom McCarthy is a novelist and is known in the art world for the reports, manifestos, and media interventions he has made as general secretary of the International Necronautical Society, a semifictitious avant-garde network. His books include *C* and *Satin Island,* both of which were short-listed for the Booker Prize; *Transmission and the Individual Remix: How Literature Works;* and *Men in Space.* In 2013 McCarthy was awarded an inaugural Windham Campbell Literature Prize from Yale University. He contributes regularly to publications such as *The New York Times*, *The London Review of Books*, *Harper's* and *Artforum*.
McCarthy has held Visiting Professorships at the Royal College of Art London; Columbia University, New York City; and Städelschule Frankfurt (DE). In 2019 he guest-curated the exhibition 'Empty House of the Stare' at London's Whitechapel Gallery, and in 2022 will guest-curate a major exhibition, 'Holding Pattern', in Kunstnernes Hus Oslo (NO), exploring themes and motifs of his work. He lives in Berlin, where in 2019 he was a Fellow of the DAAD Artists-in-Berlin programme.

Lisa Messeri, PhD, is an assistant professor of Sociocultural Anthropology at Yale University. She works with scientists and innovators to understand how their practices and imaginaries shape broader understandings of what it means to be in the world. In the book *Placing Outer Space* (2016), Messeri explores how planetary scientists and exoplanetary astronomers transform planets from scientific objects into places and worlds. Presently, she is writing a book that weaves together the fantasies and technologies that enliven the virtual reality community in Los Angeles. Messeri is more of a Scully than a Mulder.

New Models (NM) is a media platform and community addressing the emergent effects of networked technology on art, tech, politics, and pop-culture. Established in Berlin in 2018, by Caroline Busta, Daniel Keller, and LILINTERNET, NM includes some 1000 members and exists worldwide via the New Models Discord server and https://newmodels.io.

Lisa Rave is born in the United Kingdom and has since 2001 been living and working in Berlin. Rave studied Experimental Film at the Universität der Künste Berlin and Photography at Bard College, New York City. Her essayistic work often investigates the agency of matter and the hidden narratives of material from which our modern world is made, in the complex interplay of culture, economy, and ecology. She was a fellow of *The Current* at TBA21 Thyssen Bornemisza Art Contemporary Academy, the Academy of Media Arts in Cologne, KHM (DE); as well as the Academy Schloss Solitude in 2014. Her work has been shown by, among others, Kunstmuseum Basel (CH); Hessisches Landesmuseum Darmstadt (DE); Berlinische Galerie; BOZAR Brussels; Transmediale, Berlin; the Museum for Modern Art Dubrovnik (MOMAD); mumok, Vienna; the Toronto Biennale (CA); and Lofoten International Art Festival ,LIAF (NO); NTU Centre for Contemporary Art Singapore; and the Württembergischer Kunstverein, Stuttgart (DE). Rave currently works at the Academy of Fine Arts Nuremberg (DE).

Rachel Rossin is a painter and programmer whose multi-disciplinary practice has established her as a pioneer in the field of virtual reality. Her work blends painting, sculpture, new media, gaming, and video to create digital landscapes that focus on entropy, embodiment, as well as the ubiquity of technology and its effect on our psychology. Past solo exhibition venues include Zabludowicz Collection, London; 14a, Hamburg (DE); The Journal Gallery and Signal Gallery, New York City; Contemporary Art Centre, Riga and Zieher Smith & Horton, New York City. Rossin's work was part of group exhibitions at the Frist Center for the Visual Arts, Nashville (US); K11 Art Museum, Shanghai (CN); Kiasma Museum, Helsinki; The New Museum, New York City. Rossin received a Fellowship in Virtual Reality Research and Development, from New Museum's NEW INC in 2015.

Konstanze Schütze, Dr. phil., is a curator and art educator. As Junior Professor for 'Art Media Education' at University of Cologne (DE) she teaches and conducts research in art mediation, media education. Fields of work and research: art education and media theory with a focus on contemporary art and inter-institutional approaches on research. She is co-founder & curator of the queer-feminist post-digital performative arts platform and collective 'dgtl fmnsm' at digitalfeminism.net. Academic focus: speculation labs in Art Education, imagery after the Internet, Art and the postdigital condition, updates for critical art mediation. She co-edits the online platforms ,PIAERnet/texte' and ,myow.org – Workbook Arts Education'. Current projects: Algorithmic Literacy Lab* (http://kunst.uni-koeln.de/algorithmic-literacy-lab/), Critical Procedures (http://kunst.uni-koeln.de/criticalfutures-possibleprocedures/).

Caroline Sinders is a machine-learning-design researcher and artist. For the past few years, she have been examining the intersections of technology's impact in society, interface design, artificial intelligence, abuse, and politics in digital, conversational spaces. Sinders is the founder of Convocation Design + Research, an agency focusing on the intersections of machine learning, user research, designing for public good, and solving difficult communication problems. As a designer and researcher, she has worked with Amnesty International, Intel, IBM Watson, the Wikimedia Foundation, and others. She has held fellowships with the Harvard Kennedy School; the Mozilla Foundation and Yerba Buena Center for the Arts, San Francisco; Eyebeam and the International Center of Photography, New York City; and Frank-Ratchye STUDIO for Creative Inquiry, Carnegie Mellon University, Pittsburgh (US). Sinders' work has been supported by the Ford Foundation, Omidyar Network, the Open Technology Fund and the Knight Foundation and has been featured in the Tate Exchange, Tate Modern and Victoria & Albert Museum, London; MoMA PS1, New York City; LABoral Centro de Arte y Creación Industrial, Gijón (ES); Ars Electronica,

Linz (AT); the Houston Center for Contemporary Craft (US); *Slate*; *Quartz*; *Wired*; among others. She holds an MA from the Interactive Telecommunications Program at New York University.

Dirk Sorge works as an artist and cultural mediator in Berlin and Saxony. He studied Fine Arts and Philosophy and deals with the topics of standardization, mechanization, and automatisms. His works include installations, performances, and computer programs. Often, he involves his audience directly and questions the concept of authorship. He has worked for various museums, including the Berlinische Galerie; the Bauhaus Archive, Berlin; and the Staatliches Museum für Archäologie, Chemnitz. Dirk Sorge is a founding member of Berlinklusion, a network that promotes the active participation of people with disabilities in art and culture.

Charles Stankievech is a Canadian artist whose research has explored the notion of 'fieldwork' in the embedded landscape, the military industrial complex, and geopolitics. His work has been shown at institutions including the Louisiana Museum of Modern Art, Humlebæk; Palais de Tokyo, Paris; Haus der Kulturen der Welt, Berlin; National Gallery of Canada, Ottawa; TBA21 Thyssen-Bornemisza Art Contemporary, Vienna; MASS MoCA, Massachussetts; Musée d'art contemporain de Montréa, North Adams (US); Musée d'art contemporain de Montréal (CA); Canadian Centre for Architecture, Montreal; and the Venice (IT) and SITE Santa Fe Biennales (US), among others. He has lectured at *dOCUMENTA (13)* and the 8th Berlin Biennale and his writing has been published by Sternberg Press, e-flux, Verso, MIT and Princeton Architectural Press. Stankievech has participated in such residencies as The Banff Centre (CA); Fogo Island; Marfa Fieldwork (US); Atlantic Centre for the Arts, New Smyrna Beach (US); Museumsquartier Vienna; and the Canadian Military. In 2015, he won the OAAG award for best solo exhibition *Monument as Ruin*. He is an editor of *Afterall Journal* out of London, and founded the art and theory press *K.* in Berlin in 2011. In 2007, he was a founding faculty member of the Yukon School of Visual Arts, Dawson City (CA) (under joint governance by the indigenous sovereign nation of Tr'ondëk Hwëch'in). He is an Associate Professor in the Faculty of Architecture, Landscape and Design at the University of Toronto (CA).

Ramak Molavi Vasse'i is a digital rights lawyer and policy advisor. She is a visiting lecturer at the University of Potsdam and IE Law School in Madrid. Her research includes privacy and data protection, Artificial Intelligence, algorithmic systems and ethics, and the regulation of technology. Her interdisciplinary work is dedicated to sustainable and public service-oriented technology.

The **AURORA School for ARtists** at the University of Applied Sciences Berlin (HTW) offers further education in the fields of augmented reality (AR) and digital media production to art and culture professionals. In regular practice-based programs, existing AR solutions from the creative and artistic field are presented and ideas for their further implementation are developed. In the AURORA production lab, some of the AR app designs can also be realized and programmed with the support of the AURORA team.
From 2018 to 2021, the AURORA School for ARtists receives funding from the European Regional Development Fund (ERDF) under the "Program for Strengthening Innovation Potential in Culture II" with the support of the Senate Department for Culture and Europe.

Jugendgremium Schattenmuseum is a collective of 14 young people who advise museums and cultural institutions on their inclusion of younger audiences as well as develop their own artistic interventions. The collective was formed in 2018 as part of a collaboration with the Jewish Museum Berlin. Since, its members have met regularly in the form of workshops to develop their own projects and collaborations. Together with sideviews e. V., the collective realizes exhibitions for and together with cultural institutions in Berlin. Their recent work is documented on the website schattenmuseum.de.

MOTIF is an independent think tank that operates at the intersection of technology and society. MOTIF conducts research and advises organizations and policymakers on equitable tech. Current focus topics are fair platform work, feminist artificial intelligence, and open digital infrastructures for civil society organizations.