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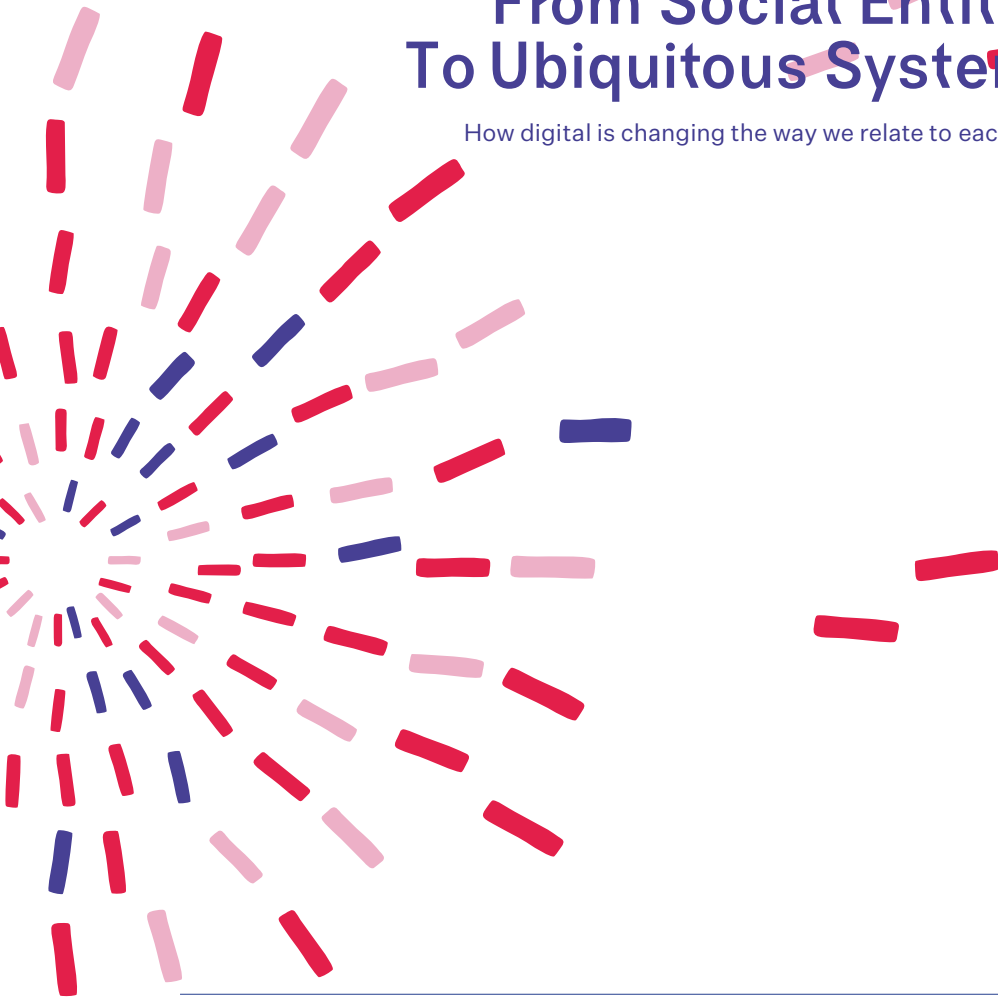
Connect for Creativity

Creative Explorations

From Social Entities To Ubiquitous Systems

How digital is changing the way we relate to each other



CFCU · BRITISH COUNCIL · ATÖLYE · BIOS · Nova Iskra · AGU · KÜLTÜRLERARASI DİYALOG INTERCULTURAL DIALOGUE · YUNUS EMRE ENSTİTÜSÜ

"The economy is so bad I'm feeling my full potential is just too strong."

The Neural Yorker: A cartoon generator.

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50 Years Later, '2001: A Space Odyssey' Is Still A Cinematic Landmark

NPR

Report calls for algorithmic transparency and education to fight fake news

TECHCRUNCH

Ousted Marine Commander Aims To 'Fight Like A Girl' Against Gender Bias In Marines

A LANDMARK ABOUT THE ALGORITHMIC DIMENSION OF GENDER BIAS

Predictive Art Bot (2015-2018) | Installation, Website, Natural Language Processing

Predictive Art Bot is an algorithm that uses online media discourse as a basis to create concepts for artistic projects and, at times, prophesize absurd future trajectories for art.

DISNOVATION.ORG

At the crossroads between contemporary art, research and hacking, the disnovation.org working group develops situations of disturbance, speculation, and debate, challenging the dominant ideology of technological innovation.

CRITICAL TEXTS

A collection of critical texts that provide insight into the intellectual impact of the way we connect and relate to each other in omnipresent systems. Do we create technology or is technology creating us? Are we trying to escape reality? Develop a new social model?

UBIQUITOUS ARTWORKS

New technological tools, new vernacular, ubiquitous computing, bits, bots, artificial intelligence, cloud infrastructures, algorithms, data, software, hardware, virtual and augmented realities, coding, sharing, networking, usernames, passwords. These are among the elements that define our existence in the digital sphere.

The digital sphere is a space in constant flux. Computer and web interfaces, devices and applications that we use keep changing and changing us. Since the early 60s, artists and creative communities have been experimenting with new technologies made available, showcasing the potential of digital media to articulate the novelty and the socio-cultural conditions of each era. Nowadays, the distinction between digital and analogue seems to be largely obsolete, as we are rapidly moving towards a continuously growing interconnected reality coordinated by machines, algorithms and a global system of infrastructures.

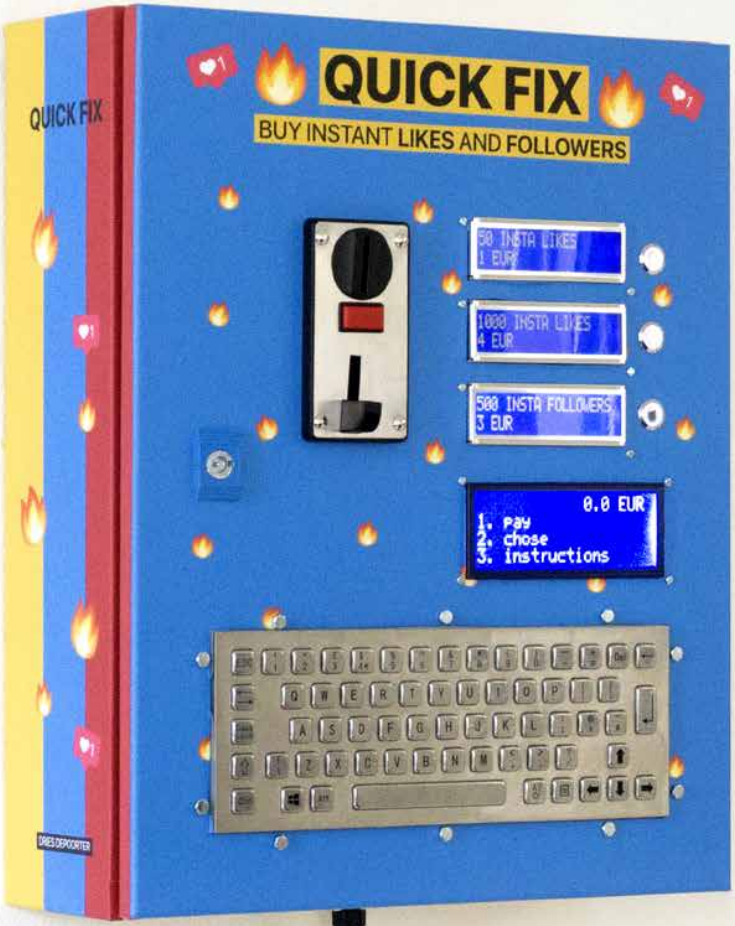
Artists and creatives working at the intersection of art and technology express the multifaceted aspects of technological innovation in different ways raising awareness and creating new narratives about our techno future. The proliferation of technological devices, the new aesthetic possibilities wrought by new media, the recent data and privacy debate, the open source tools for art making and the omnipresence of the Internet, digital applications and social platforms, have all affected the way we look and experience art in the digital age. Artistic practices offer us an understanding of how things are and may be in the future, while opening up new worlds for reflecting, imagining and reinventing our reality.

In this edition, we have curated a visual path that showcases different approaches towards art and technology, looking at how art can be a catalyst for articulating new concepts of the real, how it can reveal elements of technology largely unseen by its very users, and how it can help us shape our perception of the present time. By making use of different media, the art projects presented in this edition manifest the implications of technology in the public realm, explore our relationship with technology and expand the aesthetic language.

We would like to thank all artists who contributed to the realisation of this edition, and we hope that their work will function as a tool for reflection and redefinition of our relationship with technology.

Katerina Gkoutziouli, Curator, Ubiquitous Artworks section

A curator, researcher and project manager, mentor and cultural consultant based in Athens, Greece. She has worked with public institutions and cultural organisations, such as the Athens School of Fine Arts, the Goethe Institute in Athens, the Athens Digital Arts Festival, the Municipality of Athens, the Athens Development and Destination Management Agency, the Benaki Museum, among others. She has curated a variety of exhibitions, workshops and collaborative projects with international artists and curators for different institutions as well as independently. She has published essays and articles for art editions and online media on issues related to digital art and culture and the regeneration of public spaces through culture. In 2020, she was awarded a Fulbright Scholarship to conduct research in the U.S.

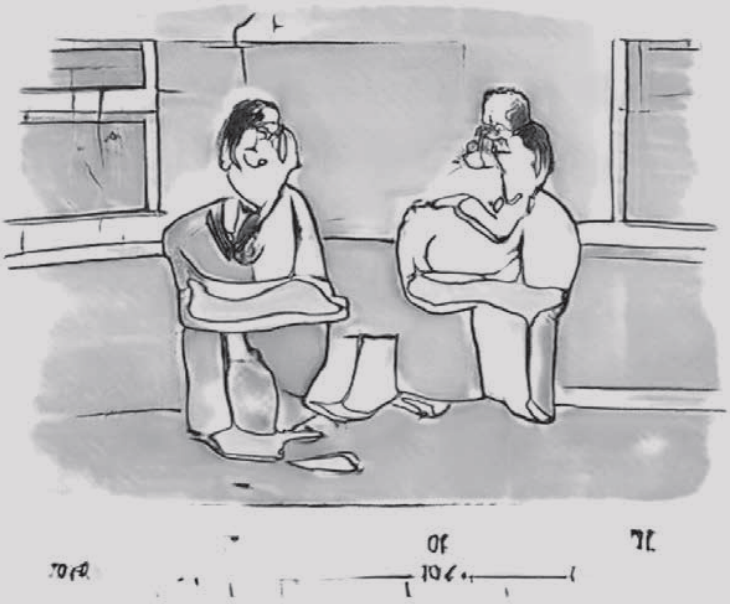

QUICK FIX
QUICK FIX
BUY INSTANT LIKES AND FOLLOWERS
50 INSTA LIKES
1 EUR
1000 INSTA LIKES
4 EUR
500 INSTA FOLLOWERS
3 EUR
0.0 EUR
1. Pay
2. Chose
3. Instructions

Quick Fix (2019) | Interactive Installation

The artwork makes it possible to buy followers or likes in just a few seconds. For a few euros you already have 200 likes on Instagram.

Dries Depoorter (BE)

Dries Depoorter is a Belgian artist that handles themes as privacy, artificial intelligence, surveillance and social media. Depoorter creates interactive installations, apps, games.



"The hole in the wall is made of graphite, a hard-working ad from Vioxx."

"What's the point of being a franchise around here?"

The Neural Yorker: A cartoon generator.

Ilan Manouach (Applied Memetic LLC)

THE NEURAL YORKER: A CARTOON GENERATOR.

While speculations about the growing role of machines in artistic production have been a consistent trope in modern and contemporary art debates throughout the 20th century, comics from their early beginnings, have been symbiotically expanding with the development of printing, distribution, communication and media technologies. These industrial processes of completion based on generalized automation, standardization practices and an orchestrated division of labour are so embedded in the ways we understand and consume comics, that have become an essential feature for the conceptualization of artistic practices in the medium. Today, deep neural networks play a transformative role in advancing artificial intelligence across various application domains and some of the most creative bits of contemporary art are happening today at the junctions between different disciplines and technologies. As a consequence, within the 'computational creativity' literature, various papers and academic researches have proposed different algorithms and model architectures in the exploration of the creative potential of a machine.

Applied Memetic responds to the need to accelerate the techni-

cal affordances in the comics and cartoon industry. A transdisciplinary team consisting of a comics artist and several computer scientists has the aspiration to produce the first comic narrative entirely generated by Artificial Intelligence. The project represents a considerable technical and artistic challenge as it explores a set of unconventional operations that don't account for the production of comic books: web-scraping, image classification, computer vision algorithms, language modeling, indexation, database building and cloud computation. Furthermore, the resources from Machine Learning are steered toward the synthetic production of everything related to original comics art: the artwork, the character designs, the dialogues, the narrative evolution, and the page layout will be entirely generated using the most up-to-date algorithmic

within the 'computational creativity' literature, various papers and academic researches have proposed different algorithms and model architectures in the exploration of the creative potential of a machine

architectures and models in Deep Neural Networks such as GAN, GPT-2 and transformers. More than a technical challenge, this is an opportunity to explore unconventional processes by weakening the aesthetics predispositions and received wisdom that are reproduced through specific (human) evolutionary interpretations of artistic production. Interested in harnessing the machinic understanding of comics through recurrent patterns, probability distributions and outliers in comics language that have been lurking in the reader's pre-attentive reader's cognition and that we haven't been able to articulate in words, Applied Memetic embraces the machinic volition in the production of an art object in order to unfold a non-human understanding of the comics medium. During our

visually-rich presentation, we would walk the reader through a conceptual, historical and technical understanding of the project in our effort to produce a knowledge-rich, experimental transdisciplinary project that pushes the boundaries of the cartoon format and aspires to produce the first cartoon generated entirely modeled using deep learning. Trained on the historical database of the famous magazine, this is a twitter bot built on a multimodal generative architecture that produces daily cartoons. Still in its 'infancy' mode, the algorithm feeds on Twitter's trending hashtags and topics and is gradually set to fit to the contemporary industry standards for press cartoons, by a semi-supervised learning mode.

AI Engineer: Ioannis Siglidis

Ilan Manouach

Ilan Manouach is a conceptual comics artist. He currently pursues a PhD at Aalto University in Helsinki (adv. Craig Dworkin) where he examines how the comics industry is undergoing historic mutations in the midst of increasingly financialized, globalized technological affordances of the XXIst century. He is mostly known for being the creator of Shapereader, an embodied system of communication designed for blind and partially sighted readers/makers of comics. He is the founder of Applied Memetic, an organisation that researches the political repercussions of generative and automated content in the comics industry and highlights the urgency for a new media-rich internet literacy and the director of Futures of Comics, an international research programme that proposes to map the social, economic, racial and gendered forces that shape the industry's commercial, communication and production routines. The Brussels-based non-profit Echo Chamber is responsible for producing, fundraising, documenting and archiving Manouach's research on contemporary comics, that has been presented worldwide. He is an Onassis Digital Fellow (2020) and a Kone alumnus (2015, 2017, 2019) and works as an external strategist for the Onassis Foundation visibility through its newly funded publishing activity.

"I was at a kennel with Richard, but now I just hate parking."

The Neural Yorker: A cartoon generator.

Boris Groys

ART, TECHNOLOGY, AND HUMANISM

In the public imagination, technology is mostly associated with technological revolutions and the acceleration of technological change. But, actually, the goal of technology is completely the opposite.

Thus, in his famous essay on the question of technology, Heidegger rightly says that the primary goal of technology is to secure the storage and availability of resources and commodities. He shows that historically, the development of technology has been directed towards the decreasing of man's dependence on the accidents to which the natural supply of resources is inevitably prone. One becomes increasingly independent from the sun by storing energy in its different forms—and in general one becomes independent of the annual seasons and the instability of weather. Heidegger does not say this explicitly, but technology is for him primarily the interruption of the flow of time, the production of reservoirs of time in which time ceases to flow towards the future—so that a return to previous moments of time becomes possible. Thus, one can return to a museum and find there the same artwork that one contemplated during a previous visit. According to Heidegger, the goal of technology is precisely to immunize man against change, to liberate man from his dependency on physis, on fate, on accident. Heidegger obviously sees this development as extremely dangerous. But why?

Heidegger explains this in the following way: If everything becomes a resource that is stored and made available, then the human being also begins to be regarded as a resource—as human capital, we would now say, as a collection of energies, capabilities, and skills. In this way, man becomes degraded; through a search for stability and security, man turns himself into a thing. Heidegger believes that only art can save man from this denigration. He believes this because, as he explains in his earlier text 'The Origin of the Work of Art,' art is nothing other than the revelation of the way we use things—and, if one wants, of the way we are used by things. Here it is important to note that for Heidegger, the artwork is not a thing but a vision that opens to the artist in the clearing of Being. At the moment when the artwork enters the art system as a particular thing, it ceases to be an artwork—becoming simply an object available for selling, buying, transporting, exhibiting, etc. The clearing of Being closes. In other words, Heidegger does not like the transformation of artistic vision into a thing. And, accordingly, he does not like the transformation of the human being into a thing. The reason for Heidegger's aversion to the transformation of man into a thing is clear: in both of the texts cited above, Heidegger asserts that in our world, things exist as tools. For Heidegger, becoming objectified, commodified, etc., means becoming used. But is this equation between a thing and a tool actually valid?

I would argue that in the case of artworks, it is not. Of course, it is true that an artwork can function as a commodity and a tool. But as a commodity, an artwork is different from other types of commodities. The basic difference is this: as a rule, when we consume commodities, we destroy them through the act of consumption. If bread is consumed—i.e., eaten—it disappears, ceases to exist. If water is drunk, it also disappears (consumption is destruction—hence the phase 'the house was consumed by fire'). Clothes, cars, etc., get worn out and finally destroyed in the process of their use. However, artworks do not get consumed in this way: they are not used and destroyed, but merely exhibited or looked at. And they are kept in good condition, restored, etc. So our behavior towards artworks is different from the normal practice of consumption/destruction. The consumption of artworks is just the contemplation of them—and contemplation leaves the artworks undamaged.

Man Ray, Méret Oppenheim, Louis Marcoussis, 1933.
Ferrotyped gelatin silver print. 12.8 x 17.2 cm

This status of the artwork as an object of contemplation is actually relatively new. The classical contemplative attitude was directed towards immortal, eternal objects like the laws of logic (Plato, Aristotle) or God (medieval theology). The changing material world in which everything is temporary, finite, and mortal was understood not as a place of vita contemplativa but of vita activa. Accordingly, the contemplation of artworks is not ontologically legitimized in the same way that the contemplation of the truths of reason and of God are. Rather, this contemplation is made possible by the technology of storage and preservation. In this sense the art museum is just another instance of technology that, according to Heidegger, endangers man by turning him into an object.

Indeed, the desire for protection and self-protection makes one dependent on the gaze of the other. And the gaze of the other is not necessarily the loving gaze of God. The other cannot see our soul, our thoughts, aspirations, plans. That is why Jean-Paul Sartre argued that the gaze of the other always produces in us the feeling of being endangered and ashamed. The gaze of the other neglects our possible future activity, including new, unexpected actions—it sees us as an already finished object. That is why for Sartre, 'hell is other people'. In his Being and Nothingness, Sartre describes the ontological struggle between oneself and the other—I try to objectify the other and the other tries to objectify me. This idea of permanent struggle against objectification through the gaze of the other permeates our culture. The goal of art becomes not to attract but rather to escape the gaze of the other—to deactivate this gaze,

to convert it to a contemplative, passive gaze. Then one is liberated from the control of the other—but liberated into what? The standard answer is: into true life. According to a certain vitalistic tradition, one lives truly only when one encounters the unpredictable and uncanny, when one is in danger, when one is on the verge of death.

Being alive is not something that can be measured in time and protected. Life announces itself only through the intensity of feeling, the immediacy of passion, the direct experience of the present. Not coincidentally, the Italian and Russian Futurists like Marinetti and Malevich called for the destruction of museums and historical monuments. Their point was not so much to struggle against the art system itself but rather to reject the contemplative attitude in the name of vita activa. As Russian avant-garde theoreticians and artists said at that time: art should be not a mirror but a hammer. Nietzsche had already sought to 'philosophize with a hammer.' (Trotsky in Literature and Revolution: 'Even the handling of a hammer is taught with the help of a mirror.') The classical avant-garde wanted to abolish the aesthetic protection of the past and of the status quo, with the goal of changing the world. However, this implied the rejection of self-protection, since this change was projected as permanent. Thus, time and again the artists of the avant-garde insisted on their acceptance of the coming destruction of their own art by the generations that would follow them, who would build a new world in which there would be no place for the past. This struggle against the past was understood by the artistic avant-gardes as also a struggle against art. However, from its beginning art itself has been a form of struggle against the past—aestheticization being a form of annihilation.

It was actually the French Revolution that turned things that were earlier used by the Church and the aristocracy into artworks, i.e., into objects that were exhibited in museums (originally the Louvre)—objects only to be looked at. The secularism of the French Revolution abolished the contemplation of God as the highest goal of life—and replaced it with the contemplation of 'beautiful' material objects. In other words, art itself was produced by revolutionary violence—and was, from its beginning, a modern form of iconoclasm. Indeed, in premodern history a change of cultural regimes

and conventions, including religions and political systems, would lead to radical iconoclasm—the physical destruction of objects related to previous cultural forms and beliefs. But the French Revolution offered a new way to deal with the valuable things of the past. Instead of being destroyed, these things were defunctionalized and presented as art. It is this revolutionary transformation of the Louvre that Kant has in mind when he writes in Critique of the Power of Judgment:

If someone asks me whether I find the palace that I see before me beautiful, I may well say that I do not like that sort of thing … ; in true Rousseauesque style I might even vilify the vanity of the great who waste the sweat of the people on such superfluous things … All of this might be conceded to me and approved; but that is not what is at issue here … One must not be in the least biased in favor of the existence of the thing, but must be entirely indifferent in this respect in order to play the judge in the matter of taste.

In other words, the French Revolution introduced a new type of thing: defunctionalized tools. Accordingly, for human beings, becoming a thing no longer meant becoming a tool. On the contrary, becoming a thing could now mean becoming an artwork. And for human beings, becoming an artwork means precisely this: coming out of slavery, being immunized against violence.

Hubert Robert, The Grande Galerie, between 1801 and 1805. Oil on canvas, 37 x 43 cm. Musée du Louvre, Paris. Photo: RMN-Grand Palais/Jean-Gilles Berizzi.

Indeed, the protection of art objects can be compared to the sociopolitical protection of the human body—that is, the protection afforded by human rights, which were also introduced by the

French Revolution. There is a close relationship between art and humanism. According to the principles of humanism, human beings can only be contemplated, not actively used—not killed, violated, enslaved, etc. The humanist program was summarized by Kant in his famous assertion that in an enlightened, secular society, man should never be treated as a means, but only an end. That is why we regard slavery as barbaric. But to use an artwork in the same way that we use other things and commodities also means to act in a barbaric way. What is most important here is that the secular gaze defines humans as objects having a certain form—namely, human form. The human gaze does not see the human soul—that is the privilege of God. The human gaze sees only the human body. Thus, our rights are related to the image that we offer to the gaze of others. That is why we are so interested in this image. And that is also why we are interested in the protection of art and by art. Humans are protected only insofar as they are perceived by others as artworks produced by the greatest of artists—Nature itself. Not coincidentally, in the nineteenth century—the century of humanism par excellence—the form of the human body was regarded as the most beautiful of all forms, more beautiful than trees, fruits, and waterfalls. And of course, humans are well aware of their status as artworks—and try to improve upon and stabilize this status. Human beings traditionally want to be desired, admired, looked at—to feel like an especially precious artwork.

Alexandre Kojève believed that the desire to be desired, the ambition to be socially recognized and admired, is precisely what makes us human, what distinguishes us from animals. Kojève speaks about this desire as a genuinely 'anthropogenic' desire. This is desire not for particular things but for the desire of the other: 'Thus, in the relationship between man and woman, for example, Desire is human only if one desires not the body but desire of the other.' It is this anthropogenic desire that initiates and moves history: 'human history is history of desired Desires.' Kojève describes history as moved by the heroes that were pushed to self-sacrifice in the name of mankind by this specifically human desire—the desire for recognition, for becoming an object of society's admiration and love. The desire for desire is what produces self-consciousness, as well as, one can say, the 'self' as such. But at the same time, this desire

for desire is what turns the subject into an object—ultimately, a dead object. Kojève writes: 'Without this fight to the death for pure prestige, there would never have been human beings on Earth.' The subject of the desire for desire is not 'natural' because it is ready to sacrifice all its natural needs and even its 'natural' existence for the abstract Idea of recognition.

Here man creates a second body, so to speak, a body that becomes potentially immortal—and protected by society, at least as long as art as such is publicly, legally protected. We can speak here about the extension of the human body by art—towards technically produced immortality. Indeed, after the death of important artists, their artworks remain collected and exhibited, so that when we go to a museum we say, 'Let's see Rembrandt and Cezanne' rather than 'Let's see the works of Rembrandt and Cezanne.' In this sense, the protection of art extends the life of artists, turning them into artworks: in the process of self-aestheticization they create their own new artificial body as the valuable, precious object that can only be contemplated, not used.

The famous slogan 'art into life' loses its meaning because art has already become a part of life—a practical activity among other activities.

Of course, Kojève believed that only great men—thinkers, revolutionary heroes, and artists—could become objects of recognition and admiration by subsequent generations. However, today almost everyone practices self-aestheticization, self-design. Almost everybody wants to turn themselves into an object of admiration. Contemporary artists work using the internet. This makes the shift in our contemporary experience of art obvious. Artworks by a particular artist can be found on the internet when I google the name of the artist—and they are shown to me in the context of other information that I find on the internet about this artist: biography, other works, political activities, critical reviews, details of the artist's

personal life, and so forth. Here I mean not the fictional, authorial subject allegedly investing the artwork with his intentions and with meanings that should be hermeneutically deciphered and revealed. This authorial subject has already been deconstructed and proclaimed dead many times over. I mean the real person existing in the off-line reality to which the internet data refers. This author uses the internet not only to produce art, but also to buy tickets, make restaurant reservations, conduct business, and so forth. All these activities take place in the same integrated space of the internet—and all of them are potentially accessible to other internet users.

Here the artwork becomes 'real' and profane because it becomes integrated into the information about its author as a real, profane person. Art is presented on the internet as a specific kind of activity: as documentation of a real working process taking place in the real, off-line world. Indeed, on the internet art operates in the same space as military planning, tourist business, capital flows, and so forth: Google shows, among other things, that there are no walls in internet space. A user of the internet does not switch from the everyday use of things to their disinterested contemplation—the internet user uses the information about art in the same way in which he or she uses information about all other things in the world. Here art activities finally become 'normal,' real activities—not different from any other useful or not-so-useful practices. The famous slogan 'art into life' loses its meaning because art has already become a part of life—a practical activity among other activities. In a certain sense, art returns to its origin, to the time when the artist was a 'normal human being'—a handiworker or an entertainer. At the same time, on the internet every normal human being becomes an artist—producing and sending selfies and other images and texts. Today, the practice of self-aestheticization involves hundreds of millions of people.

And not only humans themselves, but also their living spaces have become increasingly aesthetically protected. Museums, monuments, even large areas of cities have become protected from change because they have been aestheticized as belonging to a given cultural heritage. This does not leave a lot of room for urban and social change. Indeed, art does not want change. Art is about

storage and conservation—this is why art is deeply conservative. This is why art tends to resist the movement of capital and the dynamic of contemporary technology that permanently destroys old life-forms and art spaces. You can call it 'turbo-capitalism' or 'neoliberalism'—either way, contemporary economic and technological development is directed against any aesthetically motivated politics of protection. Here art becomes active—more specifically, politically active. We can speak about a politics of resistance—about artistic protection turning into a politics of resistance. The politics of resistance is the politics of protest. Here art moves from contemplation to action. But resistance is an action in the name of contemplation—a reaction to the flow of political and economic changes that make contemplation impossible. (In a seminar I taught on the history of the avant-garde, a Spanish student—she came from Catalonia, I think—wanted to write a paper based on her own participation in a protest movement in her native town. This movement tried to protect the traditional look of the town against the invasion of global commercial brands. She sincerely believed that this movement was an avant-garde movement because it was a protest movement. However, for Marinetti this would be a passéist movement—precisely the opposite of what he wanted.)

What is the meaning of this resistance? I would argue that it demonstrates that the coming utopia has already arrived. It shows that utopia is not something that we have to produce, that we have to achieve. Rather, utopia is already here—and should be defended. What is utopia then? It is aestheticized stagnation—or rather, stagnation as an effect of total aestheticization. Indeed, utopian time is time without change. Change is always brought about by violence and destruction. Thus, if change were possible in utopia, then it would be no utopia. When one speaks about utopia, one often speaks about change—but this is the final and ultimate change. It is the change from change to no change. Utopia is a total work of art in which exploitation, violence, and destruction become impossible. In this sense, utopia is already here—and it is permanently growing. One can say that utopia is the final state of technological development. At this stage, technology becomes self-reflective. Heidegger, like many other authors, was frightened by the prospect of this self-reflective turn because he believed that it would mean the

total instrumentalization of human existence. But as I have tried to show, self-objectivation does not necessarily leads to self-utilitarianization. It can also lead to a self-aestheticization that has no goal outside of itself, and is thus the opposite of instrumentalization. In this way, secular utopia truly triumphs—as the ultimate closure of technology in on itself. Life begins to coincide with its immortalization—the flow of time begins to coincide with its standing still.

However, the utopian reversal of the technological dynamic remains uncertain because of its lack of ontological guarantee. Indeed, one can say that the most interesting art of the twentieth century was directed towards the eschatological possibility of the world's total destruction. The art of the early avant-garde manifested time and again the explosion and destruction of the familiar world. So it was often accused of enjoying and celebrating world catastrophe. The most famous accusation of this type was formulated by Walter Benjamin at the end of his essay 'The Work of Art in the Age of Its Technological Reproducibility.' Benjamin believed that the cel-

Modern, post-spiritual man no longer believes in the immortality of reason or the soul. However, contemporary art is still inclined to aestheticize catastrophe

ebration of world catastrophe—as it was practiced, for example, by Marinetti—was fascist. Here Benjamin defines fascism as the highest point of aestheticism—the aesthetic enjoyment of ultimate violence and death. Indeed, one can find a lot of texts by Marinetti that aestheticize and celebrate the destruction of the familiar world—and yes, Marinetti was close to Italian fascism. However, the aesthetic enjoyment of catastrophe and death was already discussed by Kant in his theory of the sublime. There Kant asked how it was possible to aesthetically enjoy the moment of mortal danger and the perspective of self-destruction. Kant says more or less the following: the subject of this enjoyment knows that this subject is

reasonable—and infinite, immortal reason survives any catastrophe in which the material human body would perish. It is precisely this inner certainty—that reason survives any particular death—which gives the subject the ability to aestheticize the mortal danger and the coming catastrophe.

Modern, post-spiritual man no longer believes in the immortality of reason or the soul. However, contemporary art is still inclined to aestheticize catastrophe because it believes in the immortality of the material world. It believes, in other words, that even if the sun exploded it would only mean that elementary particles, atoms, and molecules would be liberated from their submission to the traditional cosmic order, and thus the materiality of the world would be revealed. Here the eschatology remains apocalyptic in the sense that the end of the world is understood not merely as the discontinuation of the cosmic process but also as the revelation of its true nature.

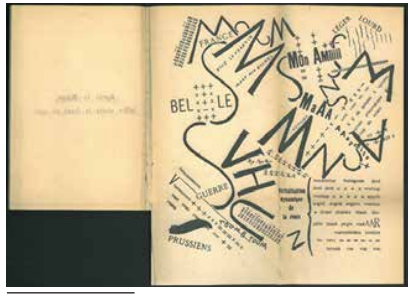
Indeed, Marinetti does not only celebrate the explosion of the world; he also lets the syntax of his own poems explode, thus liberating the sonic material of traditional poetry. Malevich starts the radical phase of his artistic practice with his participation in a production of the opera Victory over the Sun (1913) in which all the leading figures of the early Russian avant-garde also participate. The opera celebrates the demise of the sun—and the reign of chaos. But for Malevich this only means that all the traditional art forms get destroyed and the material of art—in the first place, pure colour—is revealed. That is why Malevich speaks about his own art as 'Suprematist.' This art demonstrates the ultimate supremacy of matter over all the naturally and artificially produced forms to which matter was previously enslaved. Malevich writes: 'But I transformed myself into the zero of forms and came out of 0 as 1.' This means precisely that he survives the catastrophe of the world (point zero) and finds himself on the other side of death. Later, in 1915, Malevich organized the exhibition '0.10,' presenting ten artists who also survived the end of the world and went through the point zero of all forms. Here it is not destruction and catastrophe that are aestheticized, but rather the material remainder that inevitably survives any such catastrophe.

The lack of any ontological guarantee was powerfully expressed

by Jean-François Lyotard in his essay 'Can Thought Go On Without a Body?' (1987). (This essay was included in a book by Lyotard with the fitting title The Inhuman.) Lyotard begins his essay with a reference to the scientific prediction that the sun will explode in 4.5 billion years. He writes further that this impending cataclysm is, in his view,

the sole serious question to face humanity today. In comparison everything else seems insignificant. Wars, conflicts, political tensions, shifts in opinion, philosophical debates, even passions—everything's dead already if this infinite reserve from which you now draw your energy … dies out with the sun.

The perspective of the death of mankind seems to be distant—but it already poisons us and makes our efforts meaningless. So, according to Lyotard, the real problem is the creation of new hardware that can replace the human body—so that human software, i.e., thought, can be rewritten for this new media support structure. The possibility of such a rewriting is given by the fact that 'technology wasn't invented by us humans.' The development of technology is a cosmic process in which humans are only episodically involved. In this way, Lyotard opened the way for thinking about the posthuman or the transhuman in a way that shifts the focus from software (attitudes, opinions, ideologies) to hardware (organism, machine, their combinations, cosmic processes, and events).



A page from Filippo Tommaso Marinetti's book Les mots en liberté futuristes (1919).

Here Lyotard says that man has to be surpassed—not so that he can become the perfect animal (the Nietzschean Übermenschen) but rather so that a new unity between thinking and its inorganic, inhuman—because non-animal—support structure can be achieved. The natural reproduction of the human animal should be

replaced by its mechanical reproduction. Here one can of course deplore the loss of the traditional humanist aura. However, Walter Benjamin already accepted the destruction of aura—as an alternative to the auratic moment of the total destruction of the world.

The artistic practices and discourses of the classical avant-garde were in a certain way prefigurations of the conditions under which our own second, self-produced, artificial bodies exist in the contemporary media world. The elements of these bodies—artworks, books, films, photos—circulate globally in a dispersed form. This dispersal is even more obvious in the case of the internet. If one searched the internet for a particular name, one finds thousands of references that do not add up to any unity. Thus, one has a feeling that these secondary, self-designed, artificial bodies are already in a state of slow-motion explosion, similar to the final scene of Antonioni's Zabriskie Point. Or maybe they're in a state of permanent decomposition. The eternal struggle between Apollo and Dionysus, as described by Nietzsche, leads to a strange result here: the self-designed body is dismembered, dispersed, decentreed, even exploded—but still keeps its virtual unity. However, this virtual unity is not accessible to the human gaze. Only surveillance and search programs like Google can analyze the internet in its entirety—and thus identify the second bodies of living and dead persons. Here a machine is recognized by a machine—and an algorithm is recognized by another algorithm. Maybe it is a prefiguration of the condition that Lyotard warned us about, in which mankind persists after the explosion of the sun.

Boris Groys

Boris Groys is a philosopher, essayist, art critic, media theorist, and an internationally renowned expert on Soviet-era art and literature, specifically, the Russian avant-garde. He is a Global Distinguished Professor of Russian and Slavic Studies at New York University, a Senior Research Fellow at the Staatliche Hochschule für Gestaltung Karlsruhe, and a professor of philosophy at the European Graduate School (EGS). His work engages radically different traditions, from French post-structuralism to modern Russian philosophy, yet is firmly situated at the juncture of aesthetics and politics. Theoretically, Groys's work is influenced by a number of modern and postmodern philosophers and theoreticians, including Jacques Derrida, Jean Baudrillard, Gilles Deleuze, and Walter Benjamin.


FULL
OVER

Drone Aviary (2015) | Installation, Drones, Films

A family of five drones and an accompanying film, the project aims to give a glimpse into a near-future city cohabit with ‘intelligent’ semi autonomous, networked, flying machines.

Superflux (UK)

Founded by Anab Jain and Jon Ardern in 2009, Superflux create worlds, stories, and tools that provoke and inspire us to engage with the precarity of our rapidly changing world.

"Moses, I have two children and seven grandchildren. Can you arrange a cubicle here?"

"All we have to do is tell them they don't want us."

The Neural Yorker: A cartoon generator.

Eyal Gever

TECHNOLOGY AND ART: ENGINEERING THE FUTURE

Think art. What comes to mind? Maybe Picasso, Rodin, Dali.

Now think technology - and you'll probably imagine a smartphone or a computer.

Throughout history, technology has provided artists with new tools for expression.

Today, these two seemingly distinct disciplines are interlinked more than ever, with technology being a fundamental force in the development and evolution of art.

All over the world, people are engineering our future. The internet, digital fabrication, nanotech, biotech, self-modification, augmented reality, virtual reality, 'the singularity' - you name it, all of this is altering our lives and our view of the world and ourselves.

Scientists, software developers, inventors, entrepreneurs - but also musicians, visual artists, film-makers and designers - are busy creating new human experiences.

Thanks to them, not only is original art being made everywhere, but entirely new art forms are evolving as well.

More and more artists are pushing the boundaries of art, looking outside of what's perceived as 'traditional' to incorporate other aspects into their work.

Art is becoming less and less static, taking up many new different shapes, from printing digitally created sculptures in 3D to flash-mobs to photographers lining up hundreds of naked volunteers on the beach.

Power of the web

And the rules of the game are changing, too.

Since the beginning of the postmodern art era, roughly from the 1860s, the most influential players - renowned artists, museum curators, art critics, art fair promoters and, especially, powerful gallery owners - have been dictating the behaviour of the whole art world.

But modern ways in which art is created, produced, distributed, marketed, preserved and supported have shifted as a direct reaction of the world's transition to a socially connected, digital society - to the age of the internet.

Traditionally, artists have been going to a gallery with their portfolio, and the gallery decides whether the work is good enough to expose.

Now, they turn to the web - to exhibit their work and to sell it, too.

With new services such as crowdfunding, for the first time artists are able to raise money online to pursue their ideas.

In 2011 alone, crowdfunding website Kickstarter raised almost $100m in pledges with more than 27,000 art-related projects.

Artists use social media as a powerful tool to change the relationship between collectors and the public, effectively spotting people looking for specific artworks.

Possibly, the traditional art market - collectors, gallery owners, critics, curators and even other artists - may question whether the artist who uses the web for promotion is a true professional.

But whatever the reaction may be, the change is already happening, and it is too important. The art market will grow on it and get used to it - it always does.

True art?

Throughout history and up until very recently, mostly the elite participated in the development and creation of art, while the rest of the society was left to enjoy viewing masterpieces.

The public was merely a passive observer.

Today, in our connected world, almost everyone creates. Almost everyone participates.

With the internet and new technologies of fabrication, remixing, editing, manipulating and distributing, it is becoming easier to create things - and share them with the world.

What is changing and probably - arguably - for the worse is that it is now easier to create 'art', and we see a lot of 'bad' art being created and exposed.

A huge concern is that, as a result of so many new tools and techniques, we may lose our sense and ability to evaluate what is great art.

In art, what becomes popular is not necessarily great, and vice-versa. Many new art ideas and artworks were hard to digest when they first came out.

I do see a challenge for artists to be simultaneously more open to new technologies that lead to novel forms of expression, and also staying truly creative and imaginative.

But still, the boundaries are limitless. And as technology, and especially computer technology, continues to progress, there will always be those who will experiment, pushing the envelope of what has been done before - and who will excel at it.

Curator Hans Ulrich Obrist, co-director of the Serpentine Gallery, once said: 'I don't think we can predict nor prescribe the future of art. It is the famous "etonnez-moi" [astonish me] of Diaghilev and Cocteau'- great art always surprises us, takes us where we expect it least'.

Bold directions

So what do artists focused on creating new art by using technology really need to think about?

One graphic software developer, Rama Hoetzlein, says that 'new

media' artists of today have to think not merely about the tools of the present, but also to engage in a dialogue with the artists of the past, who both haunt us and challenge us to rise above the mundane.

I believe that any modern artist needs to remember about pushing the art forward, inventing, defining new paradigms of expression with powerful meanings.

It is about the experience the artist delivers to the public - whether it is provocative, whether it changes how the viewer thinks, feels and views the world.

This is what really counts, and it has nothing to do with the techniques that the artist chooses to use.

So the goal of a contemporary artist who is choosing to create art with new technologies should not be to 'extract' meaning from the technological platform, but to use it as a base for new bold directions.

And in my opinion, it is the art that pushes the limits and defines new meanings that will change how we think and feel - today and in the future.

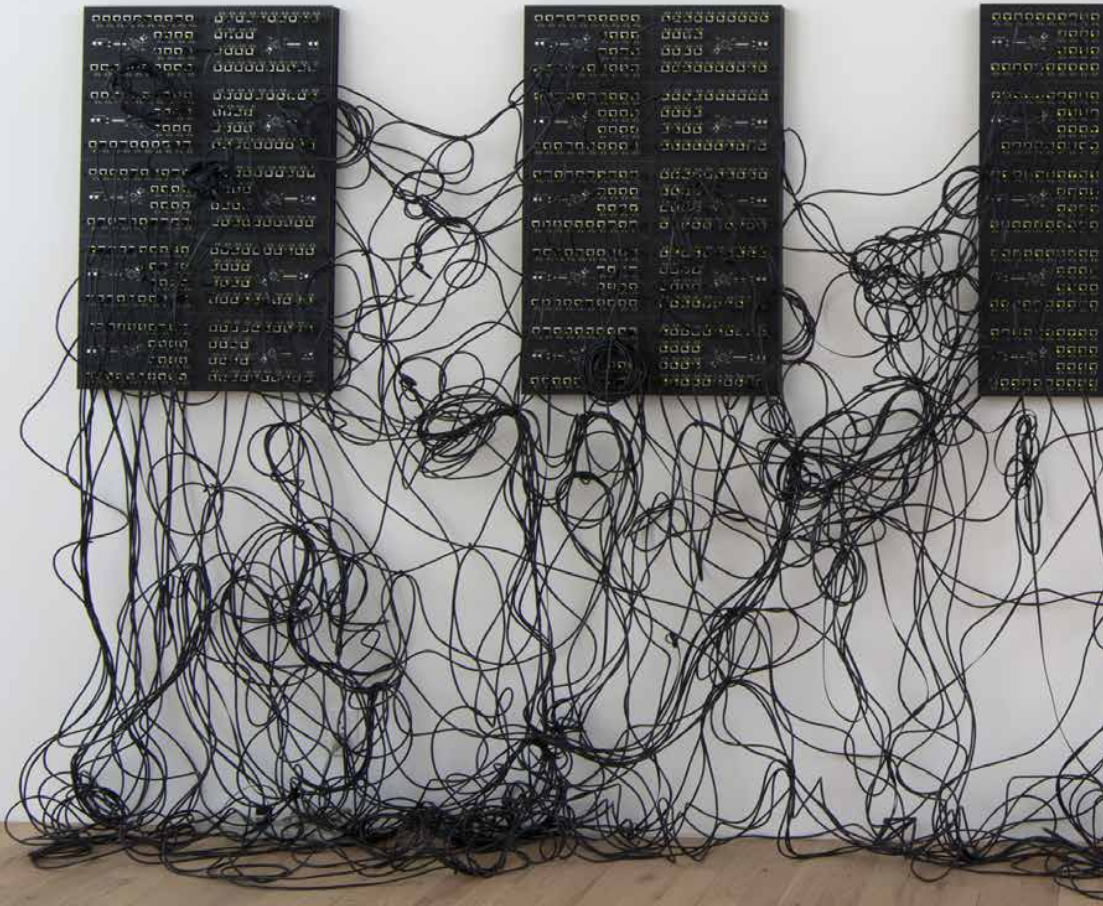
Eyal Gever

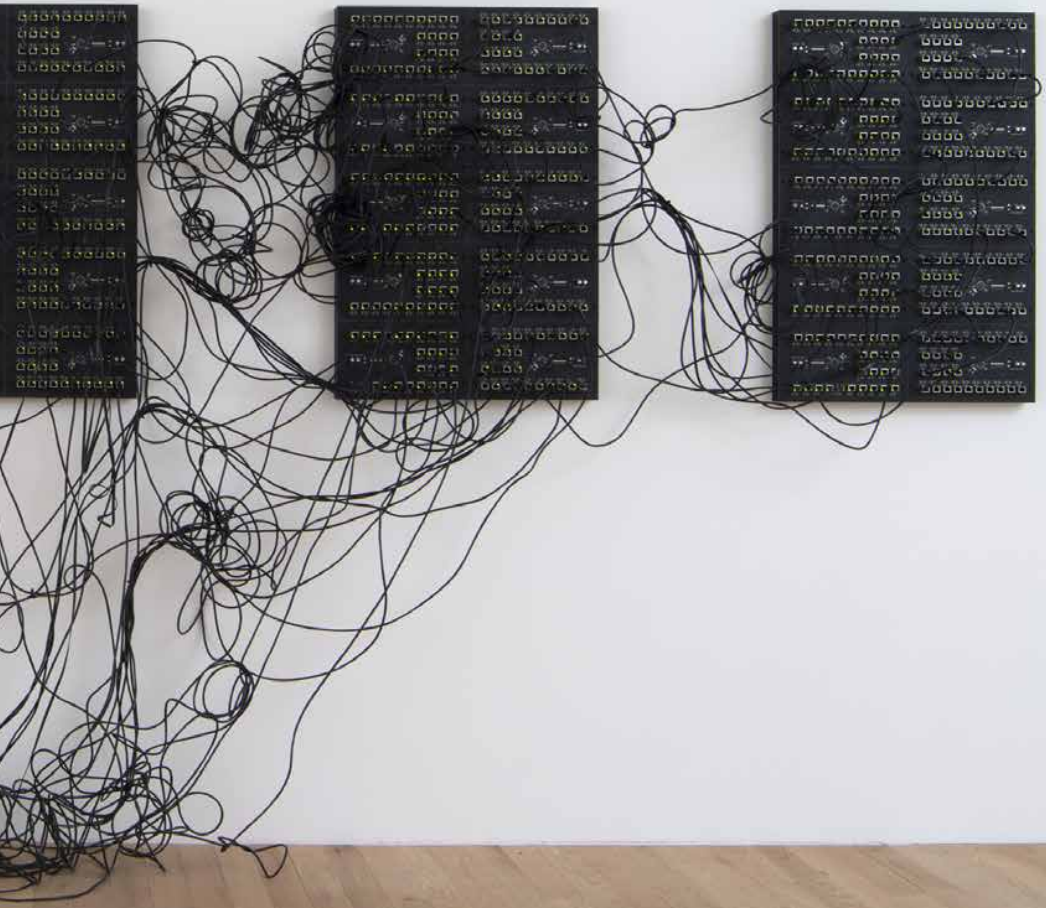
Eyal Gever is a renowned contemporary artist whose work sits at the fusion of art and technology. Using just a palette of code, he develops life-like digital simulations of moments in time - often dramatic or catastrophic in nature from which he fabricates 3D-printed sculptures and light installations.

Born in 1970 in Tel Aviv, Israel, attended Jerusalem's prestigious Bezalel Academy of Art and Design. Eyal has been working on the development of 3D technologies for over twenty-five years.

Few artists possess Eyal's deep knowledge and passion for all things digital. Harnessing this expertise, Eyal's artworks are always characterized by the use of cutting-edge technologies to explore and examine issues surrounding the human spirit, ecology, and global issues.

Eyal has eight technology patents in 3D computer graphics animation technologies, vision technologies and data transmission and propagation of rich media over networks.





xxxx.xxx (2014) | Mixed media Installation

(custom designed printed circuit boards, ethernet patch cables, 80/20 aluminum, 80 cm x 450 cm)

In xxxx.xxx, the artist has configured packet sniffers-devices that intercept traffic on a network-mounted behind circuit boards that intercept live data from nearby Wi-Fi signals. As data passes through the sculpture, small green lights blink, obscured by tangled Ethernet cables that dangle from the panels.

Addie Wagenknecht (US)

Addie Wagenknecht's work explores the tension between expression and technology. She seeks to blend conceptual work with forms of hacking and sculpture.

"No taxes, sir - so on your part I have to ask myself, 'Will I leave my job when my heart stops beating?"

"I always thought you were a happy working man. However, I prefer that you're a little putty!"

The Neural Yorker: A cartoon generator.

James Bridle

NEW DARK AGE TECHNOLOGY AND THE END OF THE FUTURE

Excrept from CLIMATE chapter

History – progress – does not always go up and to the right: it's not all sunlit uplands. And this isn't – cannot be – about nostalgia. Rather, it is about acknowledging a present that has come unhinged from linear temporality, that diverges in crucial yet confusing ways from the very idea of history itself. Nothing is clear anymore, nor can it be. What has changed is not the dimensionality of the future, but its predictability.

In a 2016 editorial for the New York Times, computational meteorologist and past president of the American Meteorological Society William B. Gail cited a number of patterns that humanity has studied for centuries, but that are disrupted by climate change: long-term weather trends, ish spawning and migration, plant pollination, monsoon and tide cycles, the occurrence of 'extreme' weather events. For most of recorded history, these cycles have been broadly predictable, and we have built up vast reserves of knowledge that we can tap into in order to better sustain our ever more entangled civilisation. Based on these studies, we have gradually extended our forecasting abilities, from knowing which crops to plant at which time of year, to predicting droughts and forest fires, predator/prey dynamics, and expected agricultural and fisheries outputs.

Civilisation itself depends on such accurate forecasting, and yet our ability to maintain it is falling away as ecosystems begin to

The philosopher Timothy Morton calls global warming a ‘hyperobject’: a thing that surrounds us, envelops and entangles us, but that is literally too big to see in its entirety

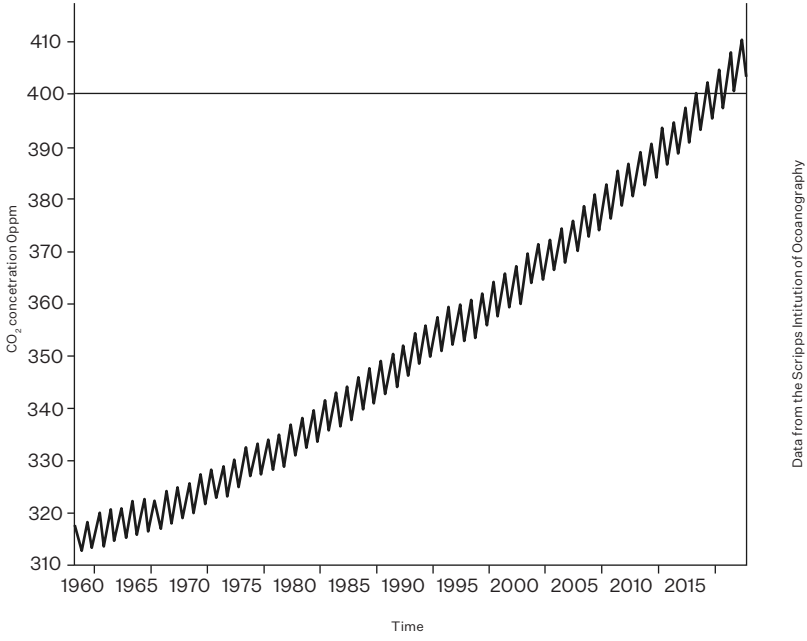
break down and hundred-year storms batter us repeatedly. Without accurate long-term forecasts, farmers cannot plant the right crops; ishermen cannot ind a catch; lood and ire defences cannot be planned; energy and food resources cannot be determined, nor demand met. Gail foresees a time in which our grandchildren might conceivably know less about the world in which they live than we do today, with correspondingly catastrophic events for complex societies. Perhaps, he wonders, we have already passed through Climate ‘peak knowledge’, just as we may have already passed peak oil. A new dark age looms.

The philosopher Timothy Morton calls global warming a ‘hyperobject’: a thing that surrounds us, envelops and entangles us, but that is literally too big to see in its entirety. Mostly, we perceive hyperobjects through their inluence on other things – a melting ice sheet, a dying sea, the buffeting of a transatlantic light. Hyperobjects happen everywhere at once, but we can only experience them in the local environment. We may perceive hyperobjects as personal because they affect us directly, or imagine them as the products of scientiic theory; in fact, they stand outside both our perception and our measurement. They exist without us. Because they are so close and yet so hard to see, they defy our ability to describe them rationally, and to master or overcome them in any traditional sense. Climate change is a hyperobject, but so is nuclear radiation, evolution, and the internet.

One of the main characteristics of hyperobjects is that we only ever perceive their imprints on other things, and thus to model

the hyperobject requires vast amounts of computation. It can only be appreciated at the network level, made sensible through vast distributed systems of sensors, exabytes of data and computation, performed in time as well as space. Scientiic record keeping thus becomes a form of extrasensory perception: a networked, communal, time-travelling knowledge making. This characteristic is precisely what makes it anathema to a certain kind of thinking – one that insists on being able to touch and feel things that are intangible and unsensible, and subsequently dismisses the things it cannot think. Arguments about the existence of climate change are really arguments about what we can think.

And we are not going to be able to think much longer. In preindustrial times, from 1000–1750 CE, atmospheric carbon dioxide varied between 275 and 285 parts per million – levels we



The Keeling Curve as of October 21, 2017

know from studying ice cores, the same batteries of NEW DARK AGE knowledge that are melting away in the Arctic today. From the dawn of the industrial age they begin to rise, reaching 295 ppm at the start of the twentieth century, and 310 ppm by 1950. The trend – named the Keeling Curve, after the scientist who started modern measurements at the Mauna Loa observatory in Hawaii in 1958 – is ever upward, and accelerating. 325 ppm in 1970, 350 in 1988, 375 in 2004.

In 2015, and for the irst time in at least 800,000 years, atmospheric carbon dioxide passed 400 ppm. At its current rate, which shows no sign of abating, and we show no sign of stopping, atmospheric CO2 will pass 1,000 ppm by the end of the century.

At 1,000 ppm, human cognitive ability drops by 21 per cent. At higher atmospheric concentrations, CO2 stops us from thinking clearly. Outdoor CO2 already reaches 500 ppm regularly in industrial cities: indoors, in poorly ventilated homes, schools, and workplaces, it can regularly exceed 1,000 ppm – substantial numbers of schools in California and Texas measured in 2012 breached 2,000 ppm. Carbon dioxide clouds the mind: it directly degrades our ability to think clearly, and we are walling it into our places of education and pumping it into the atmosphere. The crisis of global warming is a crisis of the mind, a crisis of thought, a crisis in our ability to think another way to be. Soon, we shall not be able to think at all.

The degradation of our cognitive abilities is mirrored at scale in the collapse of the transatlantic jet routes, the undermining of communication networks, the erasure of diversity, the melting away of historical knowledge reserves: these are signs and portents of a wider inability to think at the network level, to sustain civilisation-scale thought and action. The structures we have built to extend our own life systems, our cognitive and haptic interfaces with the world, are the only tools we have for sensing a world dominated by the emergence of hyperobjects. Just as we are beginning to perceive them, our ability to do so is slipping away.

Thinking about climate change is degraded by climate change itself, just as communications networks are undermined by the softening ground, just as our ability to debate and act on entangled

environmental and technological change is diminished by our inability to conceptualise complex systems. And yet at the heart of our current crisis is the hyperobject of the network: the internet and the modes of life and ways of thinking it weaves together. Perhaps unique among hyperobjects, the network is an emergent cultural form, generated from our conscious and unconscious desires in dialogue with mathematics and electrons and silicon and glass fibre. That this network is currently being (mis)used to accelerate the crisis, as we will see in subsequent chapters, does not mean it does not retain the potential to illuminate.

The network is the best representation of reality we have built, precisely because it too is so dificult to think. We carry it around in our pockets and build pylons to transport it and palaces of data to process it, but it is not reducible to discrete units; it is nonlocal, and it is inherently contradictory – and this is the condition of the world itself. The network is continuously, deliberately and unknowingly created. Living in a new dark age requires acknowledging such contradictions and uncertainties, such states of practical unknowing. Thus the network, properly understood, can be a guide to thinking other uncertainties; making such uncertainties visible must be done precisely so that they can be thought. Dealing with hyperobjects requires a faith in the network, as mode of seeing, thinking, and acting. It denies the bonds of time, place, and individual experience that characterise our inability to think the challenges of a new dark age. It insists on an afinity with the noumenal and the uncertain. In the face of atomisation and alienation, the network continually asserts the impossibility of separation.

James Bridle

James Bridle (born 1980) is an artist, writer and publisher based in London. Bridle coined the New Aesthetic; their work 'deals with the ways in which the digital, networked world reaches into the physical, offline one.' Their work has explored aspects of the western security apparatus including drones and asylum seeker deportation. Bridle has written for WIRED, Icon, Domus, Cabinet Magazine, The Atlantic and many other publications, and writes a regular column for The Guardian on publishing and technology.


magpie
ISTANBUL
IS
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PORARY

Since you Were Born (2019) | Installation

The installation presents an introspective view of Evan Roth's own internet browsing data to create a dynamic site-specific installation of saturated images that are both personal and universal.

Photo by: Doug Eng, courtesy of the MOCA Jacksonville

Evan Roth (US)

Evan Roth is a US artist who applies a hacker philosophy to an art practice that visualizes transient moments in public space, online and in popular culture.

"Of course I don't mind you rubbing my socks on him."

"Our telly makes you feel just like a psychopath."

The Neural Yorker: A cartoon generator.

François Roche (New-Territories), Ezio Blasetti - Danielle Willems (MAETA DESIGN), Matias Del Campo - Sandra Manninger (SPAN), Roland Snooks . Benoit Durandin . Stephan Henrich . Gwyll Jahn (ide.ai)

#DIGITALDISOBEDIENCES ….BUT ARCHITECTURE

[gardens of earthly delights]

In power games, [apparatuses could be considered] relationship strategies supporting types of knowledge and supported by themselves.
Michel Foucault, 1994, Dits et Écrits

We can't remain satisfied with protest. This historically operative way to challenge the organisation of power is now naive, childish, self-complacent and unproductive.

Should we suspect that digital 'art' is meant to be used as a glamorous lure, a blue sleeping pill, to entertain those who produce it, just as turpentine intoxicates the painter, and, for its consumers, to help maintain their belief in the illusion of positivism, progress, emancipation through science and novelty gadgets… Trapped in a postscience world without even knowing it, one already described by Rabelais in the middle of the Quattrocento…

Should we suspect the apparent direct opposites of these Mephistopheleses, the regressive moralists and semiologists who turn their indignation into capital to recoup their 30 pieces of silver, using correct consciousness as a flagship, commoners and common goods as their willing victims, promoting 'bottom-up' processes on the condition that they be the masters of ceremony… in their Prada suits… the intellectuals denounced by Chomsky who safeguard the system, its means, meaning and authority,… but nevertheless claim, by virtue of their indignation, the magnificence of their position… of their forgery…

Should we reveal that these two paradigms are simply the Janus faces of the same system… in a symmetrical convergence of interests and benefits? Could we develop a paradigm other than the interplay between the cynic and the clown?

Should we denounce our academic standing as a wasp-like trialophile position of expertise, operating and reproducing the new disciplinary vogue for our daily three obols, the standard rate for courtesans and heliasts at the time of Cleon? Are we trapped in false debates between hereditary abstractions and social formalism, or even, the counterpart of all this, trapped in the empty speeches of gala socialism? Has the empathic penitence of our silence rendered null and void the articulation of our experimentation? Should we denounce the Melian nymphs' pride and foolishness and subject them to their weak suffering? Should we suspect that, in the amnesty's aftermath, we will have to pay the fine in exile, drink the conium, or even accept being forgotten in our escapist digital swan song?

How to embody the performative polymorphism and inheritance of our techno-social economies and language, to vectoralize the fiction of identity egotism towards new sortitions of assemblies, at a time when the similitude of appearances is dismissed as filer à l'anglaise? At a time of computationalism, when space is quantized with subjectivities? Should we suspect that our own graft is, in fact, the suspect, suggest another game, one we could lose… 'Try to remember. It was in the gardens at Marienbad….'.

These rules of a predictable 'ANCIENT REGIM' world, in the sense of the division of labor, delegation of power and concentration of databases, need to mask their powerlessness, their impotency, through this managerial debate, fake conflict and disputatious storytelling / the computer geek vs. the political clown… defining niches and territories from where they could operate, both of them spreading the traditional and compliant speech of the masters.

We are in the midst of a paradigm shift, to quote Thomas Kuhn, between two inherently incommensurable systems. The old system that uses technology to reproduce and perpetuate top-down processes (which they falsely claim to oppose)… and a new system that needs to discover its potential, its limits, constraints, intrinsic logic… to renegotiate the scenario of thinking and doing…

‘‘’but’’’ architecture… the means and the meaning, rearticulating le vivre-ensemble and the ‘common good’… for protocols more disruptive than linear, more heuristic than deterministic, more anthropo-technological (Sloterdijk) than purely dedicated to accuracy, performativity, expertise, now analyzed as one symptom of the copy-based syndrome…

Digital Disobedience can be described as an alternative frame of thinking about the application of novel tools in our contemporary discourse. Architecture as a discipline is on the verge of a deci-

How is one to digitally disobey? Would the ultimate disobedience be to automate design, to automate intuition?

sive moment: automation and artificial intelligence will bring more change to the entire practice than even the revolutionary introduction of computational tools did in the last quarter of a century. This brings along an entire set of questions, which Digital Disobedience attempts to ask. The answer is not the main issue here, rather the set of opportunities presented in the critical interrogation of our current, and future, relationships to novel ecologies emerging in society, economy and technology. How will we, as architects, respond to this rapidly progressing change? Is being docile, in expectance of the best, a sufficient position to maintain? The collective of architects on display here refuse to be usurped by a neoliberalist position on computational design and architecture and rather support an idea that fosters a speculative approach to the future. A position that embraces change triggered by technological progress in the methods of materializing architectural entities. A future in which robots and humans form novel modes of machines infused with aspects of morality and inquisitive intelligence.

A post-capitalist future that embraces the radical change in our social texture triggered by the possibilities of a world governed by deterritorialized entities in which we expand, repurpose or accel-

erate aspects of our culture and technology for the benefit of our world at large.

How is one to digitally disobey? Would the ultimate disobedience be to automate design, to automate intuition? While the profession would decry the idea of automating intuition anathema, to a layman's eye such intuition has already been automated. Turing-complete neural networks are able to intuitively (a justifiable term as even their programmers do not fully understand the logic of their working) synthesize everything from Monet to Shakespeare, creative works that would be impossible to describe with conventional programming. To a philistine, Van Gogh might appear to have been automated.

As cultural content is generated faster than we could ever consume it, and content that does make it to an audience is consumed instantly, do we really find pause to absorb its meaning?

ArchFakely proves poor architectural writing has been automated in a literary project that has no aspiration to be read, as no one reads the text of the data set on which it is modelled anyway. As cultural content is generated faster than we could ever consume it, and content that does make it to an audience is consumed instantly, do we really find pause to absorb its meaning? Is digital disobedience this acceleration? The skimming of latent space in order to shift from 'computational design' to the 'computational derive' through a snowcrash of endless difference? Have machines already learned to model the tastes and desires that might guide this meander? Is digital disobedience a reluctance to being spoon-fed? A resistance to the state of the art? After forgetting how to code and critically engage with the machines that generate their visual culture, will architects forget their own canon? Will fake histories emerge, channeling popularly held belief and melting what was once thought to be immutable historical fact into a toxifying generative adversarial goo?

This is a shift from imposing our will/intention on, or in, the systems of computation, to embracing the dissolution of the binary distinction of the intuitive and systemic. While computational design seeks to embed intuition into the self-organizing algorithms of complexity theory, this is being superseded by the emergence of a computational intuition – what kind of subjectivity the heuristic bits dreams? Rather than computational architecture's attempt to shift from invention to pseudo-orchestration, this shift/glitch questions the subjective/objective division established between architect and itstechnological matrix. Is this a symptom of a wider blurring of digital/material, robot/human, emergence/intuition, process/artefact, where these participants all interact on the same plane, rather than considering the robot as either the slave of savior, or vice versa?

Libidinal Economy of Jean-François Lyotard as well as Capitalism and Schizophrenia of Deleuze and Guattari, as the #ACCELERATE MANIFESTO for an Accelerationist Politics of Alex Williams and Nick Srnicek, as well as The Specter is Still Roaming Around, one of the first books by Žižek, are describing the hiatus, the hypo-crisis situation of lefties, drinking red wine at the e-flux carnival, during the performative election of oval office populism… As actor in the world of today, in the zeitgeist of absurdism and Cutting Edge's daily announcement of new gadgets, new saving energy, new electric car, new Viagra, new climate threats and ignorances, using sciences, paradoxically, as a new obscurantism…….in posthuman, postqueers, postdummies…for permanent 'newspeak' propaganda… what does it mean to be an architect…in terms of apparatus, knowledge and strategies of knowledge, rearticulating fabrication within a specific organisation of the means of production, which requestion the know-how, the will and the process in another distribution of task/power, authorship, bottom-up strategies, in term of trespassing what Foucault called 'the true and the fake, the rigor and madness, and… the forbidden.'

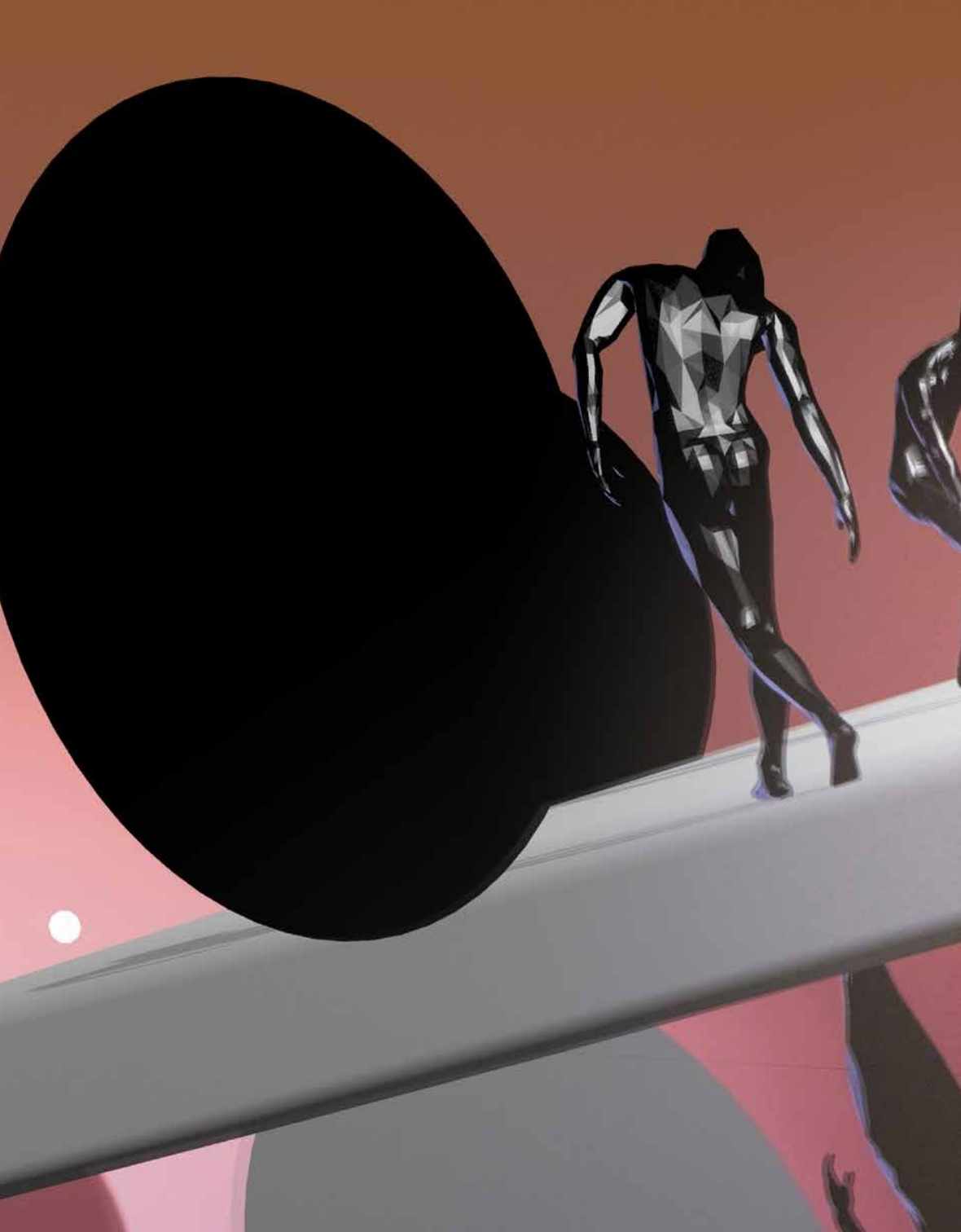
Did somebody say break time!

Few words /

-Socio Parade Moralism vs Workerism
-Oedipal Haptic vs Blind Machines
-Symbiosis vs AutoPoesis
-Heuristic vs Linear
-Disobedience vs Compliance
-Artifact vs Determinism
-Disruptive vs Causal
-Psychotic vs Compliance -Singularities Vs ‘deja vu’
-Pataphysic vs AI
-Anomalies vs By-product
-Necrosis vs Permanence
-Ecosophy vs Ecology
-Artifacts vs Expertise
-Paradigms vs Paradigms
-Paranoia Critic vs Voluntary Servitude
-Profane vs Institutional
-Gafa Big Data vs Democratic Social Contract
-Digital_Analogue vs Digital_ Fetishism

This text has been launched by several hands, at the occasion of the 2018 Biennale of Venice.

François Roche (NewTerritories).
Matias Del Campo - Sandra Manninger (SPAN).
Ezio Blasetti -Danielle Willems (MAETADESIGN).
Roland Snooks.
Benoit Durandin.
Stephan Henrich.
Gwyll Jahn (ide.ai).
Bangkok, New-York, Melbourne, Athens, Stuttgart, March 2018



The Other in You (2017-ongoing) | Virtual Reality Installation and Performance

The Other in You is an outcome, which brings the insights the artist and YCAM learnt over the years, into an installation piece. The Other in You sheds light on the physicality of the audience which we, including the audience themselves, have forgotten along the way. At some point during the performance, the point of sight of the viewer leaves their own body and they see themselves from above. This out-of-body sensation is a unique experience VR offers.

Richi Owaki (JP)

Born in 1977 in Aichi, Japan, Richi attended Tohoku University of Art and Design to study film and media, and alongside learning about artwork production in general with an emphasis on film, he taught himself and strengthened his understanding about physical expression. At the YCAM InterLab, he is working with professionals from different fields to explore the possibilities of new creative methods and education in dance.

"I hear they did give some leeway to throw the baby out of the park."

"We encourage people to relax and plan our lives at home."

The Neural Yorker: A cartoon generator.

Daphne Dragona

HOW DOES IT MAKE YOU FEEL? GAPS, CRACKS AND CARE TECHNOLOGIES

Care technologies are already here. Virtual assistants, online bots and social robots are becoming more and more common at work, at home, on the go, as well as at places like hotels or hospitals.

Alexa, Siri, Cortana, Pepper and other artificial companions have come to inform, entertain, provide guidance and keep company. Equipped with systems like face or voice recognition, they are machines that can see or hear their users, and respond to their requests while learning from their interests and habits. They are here to organize and optimize everyday life, offering their services continuously and tirelessly. Being present even when one almost forgets their existence, they change not only how we relate to technology, but also we relate to one another. What feelings, though, do technologies of care evoke and which behaviors do they encourage? What role do they play –or promise to play– in different contexts? This text tries to offer possible answers through artistic projects that address the topic.

A form of post-love

Rory Pilgrim speaks of 'post-love', a form of love felt by the inanimate, the machinic, the robotic... [1] In his Software Garden [2] performance, the social robot Pepper is present. Pepper is equipped with cameras, sensors, mics and leds for his interactions with humans. In countries like Japan, the robot is currently being used to detect if people are wearing masks and to remind them to stay safe. In Software Garden, Pepper interacts with the poet and disability advocate Carol Kellend who contributes with her poems to the project. Carol dreams of a world where robots would live in harmony with humans; a robot like Pepper would help her, for instance, respond to the harsh reality she is facing after the disability cuts in UK. Social robots are considered ideal companions for the children, the elderly or the ones in need. For the moment, though, the capabilities of robots in care labour are still limited, while their operation is based on the constant capturing, identification and classification of human behaviour [3].

Alexa, you creep me!

Alexa Stop! is a song from the album Alexiety [4] by !Mediengruppe Bitnik and Low Jack. The song, as the artists explain, captures the feelings users develop towards their intelligent personal assistants –from carefree love to discomfort and even anxiety–. The album –and the installation it is part of– aims to disrupt the functioning of intelligent personal assistants with lyrics that involve common queries and commands. 'Alexa, you are getting better and better at anticipating the voices, the moods around you' a lyric says. Intelligent personal assistants are designed not only to inform and entertain but also to control an environment and its devices. Alexa –just like Google home– has 'voice features' that detect the physical characteristics and the emotional tone of a human voice; they can locate the ethnic origin, the language accent, the gender, the age and the mood of the user. For this reason, they prove to be ideal for data mining and targeted advertising and they, therefore, expose their users to continuous surveillance.

It is the voice of a girlfriend, a wife, a mom

The animated text of the project Macho Sounds / Gender Noise [5] by Sofia Dona and myself comments on the gender of the machinic

voice. ‘The voice that helps you navigate, calls home, plays music and podcasts, adjusts the temperature, shows gas stations and proposes restaurants is female’ one reads in the text. The female voice possibly creates a feeling of comfort as it builds associations to roles traditionally undertaken by women, being considered more attentive to one’s needs. The project specifically looks into the features of in-car assistants while discussing the role of sound design in the reproduction of gender stereotypes. The car, a standard example of a patriarchal technology, turns more and more today into a caring machine providing multiple services to the driver. The driver multitasks while an intelligent assistant with a gentle female voice undertakes the small tasks for them. When machines seen as female undertake all the small things, though, a certain risks appears; women might be seen as technology in return, as Sarah Sharma points out [6]. Behaviors towards machines can influence behaviors towards the ones that used to undertake forms of invisibilized and affective undervalued labor.

I am a bot, not a therapist

This is what the Care Bot [7] of Caroline Sinders clarifies, reminding the user that a machine does not have sentient or cognitive capacities. It performs as it has been programmed to perform; in the Care Bot’s case, it informs users of social platforms about online harassment or it underlines to possible victims the importance to ask for help, indicating to them useful resources. The bot has been created in order to discuss the need for victims of online harassment to have support based on the principles of care, respect and feeling safe. The project leaves no space for any illusion or confusion. It points towards the lack of any support provided by the platforms, as well as it questions the solutions being promised based on machine learning. As the artist clarifies: ‘I wanted a bot that acknowledges that it is a bot, but that at the same time says to the victim: it’s not your fault; it’s the platform’s fault. [8]’ The bot is there to discuss ‘the un-caring social media landscape’ and to expose failures of the systems, but it cannot offer psychological support.

Calling home

Voice recognition systems and more specifically accent recognition software is used not only for artificial companions. Similar software

is nowadays utilized in asylum procedures or for border control in the name of so called 'humanitarian care' [9]. Technologies of care are, therefore, interestingly linked to technologies of border control, and in this case the predominant feeling for the ones dependent on them is anguish or fear. The phrase 'call home', accordingly, brings to mind not a casual person speaking comfortably to an intelligent personal assistant, but rather a person fleeing and trying to communicate with their family. Pedro Oliveira is commenting on this use of accent recognition software in his sound performances and sound essays like the recently produced On the apparently meaningless texture of noise [10]. Measuring, classifying, ranking and

Technologies such as the ones discussed above are the affective infrastructures of our times. They are affective not only for the different feelings that they evoke and possibly process -from anticipation, calmness and comfort, to uneasiness, anxiety and fear-, but also for the promises they are meant to fulfill.

taxonomising human traits – like the accent – is, as he argues, a colonial construct which finds today its new violent manifestations through automation. This supposed objectivity of human traits offers the ground for a reduction of one's identity to identification where the use of software constitutes an 'act of dehumanisation.'[11]

Technologies such as the ones discussed above are the affective infrastructures of our times. They are affective not only for the different feelings that they evoke and possibly process -from anticipation, calmness and comfort, to uneasiness, anxiety and fear-, but also for the promises they are meant to fulfill. The social robots, intelligent personal assistants, bots, and other specially designed

software programs have all appeared at a time of a generalized crisis linked to crisis of care where societal bonds have been broken. The role of these technologies at this specific moment has been no other but to fix or repair these bonds, to fill in gaps appearing on different levels. As Nancy Fraser explains 'the current, financialized form of capitalism is systematically consuming our capacities to sustain social bonds, like a tiger that eats its own tail.'[12] Within this context, care is instrumentalized; it is weaponized; it is called to serve interests of governments and markets. This condition, though, does not have to be seen as definitive. Gaps can also become 'sites for productive interventions' revealing or exposing how care infrastructures work [13]. They can be the cracks in the systems from which perceptions and perspectives can shift and change [14] as the artistic projects mentioned above aim to do. Care can also be unsettling, critical, collective, radical [15]. The future of care technologies depends to a great extent on the attention paid to them, and on the critical reflection needed about their use. As Maria Puig de la Bellacasa argues, if one ignores how human-machine associations are formed, there is the risk of of allowing technologies to reinforce asymmetries that devalue caring[16] and to allow new forms of regulation and control.

All in all, it is not about how Alexa makes you feel, but rather about the world being built around systems like Alexa.

1 https://rorypilgrim.com/text/evolution-of-care-interview-aqnb/

2 https://rorypilgrim.com/software-garden/

3 Oliver Schürer explained this at the Ludic Method Soirée which took place on the 19th of November 2019 at the Zentrum Fokus Forschung die Angewandte in Vienna. https://tinyurl.com/y542nfad

4 http://www.roehrsboetsch.com/artists/detail/mediengruppe-bitnik/work/alexiety/

5 https://daphnedragona.net/projects/macho-sounds-gender-noise

6 Sarah Sharma, 'A feminism for the broken machine', Camera Obscura Journal. (forthcoming)

7 https://care-bot.schloss-post.com/

8 'Bridging the Care Gap of Social Media Systems. Interview with Caroline Sinders'. https://schloss-post.com/bridging-the-care-gap-of-social-media-systems/

9 In Germany they put in implementation such a software in 2017 to detect where refugees are coming from and confirm that they are telling the truth.

10 https://schloss-post.com/meaningless-texture-of-noise/

11 'The Timbral Matter of Voice and the Right to Opacity. Interview with Pedro Oliveira'. https://schloss-post.com/the-timbral-matter-of-voice-and-the-right-to-opacity/

12 Sarah Leonard and Nancy Fraser, 'Capitalism's Crisis of Care'. Dissent Magazine. https://www.dissentmagazine.org/article/nancy-fraser-interview-capitalism-crisis-of-care

13 Ibid 'The Timbral Matter of Voice and the Right to Opacity.'

14 This is based on Anzaldúa's thinking on the possibility of seeing from the cracks. Gloria E. Anzaldúa, Light in the Dark/ Luz en lo Oscuro: Rewriting Identity, Spirituality, Reality, ed. Analouise Keating (Durhan and London: Duke University Press, 2015)

15 The problematics of care and the potential of unsettling and critical care are discussed in Aryn Martin, Myers Natasha and Ana Viseu. 'The politics of care in technoscience.' Social Studies of Science 45.5 (2015). pp 625-641.

16 Maria Puig de la Bellacasa, 'Matters of care in technoscience: Assembling neglected things.' Social Studies of Science 2011 41: 85. DOI: 10.1177/0306312710380301

Daphne Dragona

Daphne Dragona is a curator and writer based in Berlin. Through her work, she engages with artistic practices, methodologies and pedagogies that challenge contemporary forms of power. Among her topics of interest have been: the controversies of connectivity, the promises of the commons, the challenges of artistic subversion, the instrumentalization of play, the possibilities of non-sovereign infrastructures, the problematics of automated care, and most recently the potential of kin-making technologies in the time of climate crisis.

Among her curated -or co-curated- projects are the exhibitions: Kyriaki Goni, Counting Craters on the Moon (Aksioma, 2019), Tomorrows, Fictions spéculatives pour l'avenir méditerranéen (Le Lieu Unique, Nantes, 2019), '...' an archeology of silence in the digital age (Aksioma, Ljubljana, 2017), Tomorrows, Urban fictions for possible futures (Diplareios, Athens, 2017), Capture All (transmediale, Berlin, 2015), New Babylon Revisited (Goethe Institut Athen, 2014), Afresh, a new generation of Greek artists (EMST, 2013), Data Bodies - Networked Portraits (Fundacion Telefonica & Alta Tecnologia Andina, Lima, 2011), Mapping the Commons Athens (EMST, 2010), Homo Ludens Ludens (Laboral, Gijon, 2008). Articles of hers have been published in various books, journals, magazines, and exhibition catalogs by the likes of Springer, Sternberg Press, and Leonardo Electronic Almanac. Talks of hers have been hosted at ViZ (Athens), Mapping Festival (Geneva), MoMA (New York), Hek (Basel), Arts in Society (London), Leuphana University (Lueneburg) and Goethe University (Frankfurt).

Dragona worked as a curator for transmediale festival (Berlin) from 2015 until 2019. In the past –from 2001 until 2007–, she was the general coordinator of medi@terra festival, organised by Fournos (Athens). She has been a member of several committees for conferences and festivals and recently she was a jury member and mentor for ARTWORKS, Fellowship for Greek Young Artists of the Stavros Niarchos Foundation.

She holds a PhD from the Faculty of Communication & Media Studies of the University of Athens, an MA in Museum Studies from UCL, and a BA in Archaeology and History of Art from the University of Athens

Bosphorus: Data Sculpture (2018) | Audiovisual Installation

Bosphorus is a data sculpture inspired by high frequency radar data collections of Marmara Sea provided by Turkish State Meteorological Service in 30 minutes intervals. The data collection of 30 days long sea surface activity transformed into a poetic experience and visualized on a 12 meters by three meters long LED media wall.

Refik Anadol (TR)

Refik Anadol is a media artist and director born in Istanbul, Turkey in 1985. Currently lives and works in Los Angeles, California. He is a lecturer and visiting researcher in UCLA's Department of Design Media Arts.

"I always get the feeling that your work-life balance is in direct conflict with my life!"

"It says, here, that alcohol and other problems might affect your health, but it does not say 'magic beans'."

The Neural Yorker: A cartoon generator.

Nora N. Khan

UNREADABILITY AND BEING READ

excerpt from 'SEEING, NAMING, KNOWING' publication

How do we make sense of reading images that aren't even meant to be read by us? If a machine is reading a machine-produced image, what theoretical concepts can we use to describe what is being represented? What critical visual terms can we use to describe the algorithmically-generated image? As AI's evolution moves from supervised to unsupervised learning, the process of naming is becoming less sensible and intentionally less readable to people. It is hard to know what one is looking at, let alone subjecting it to loving and rigorous critique. How do we describe seeing that reads much of the digital evidence of our lives? How do we even critique an eye that can 'recall the faces of billions of people,' as Paglen points out? (He was then discussing Facebook's DeepFace, which in the ancient days of 2014 had an accuracy of '97.35 per cent on the Labeled Faces in the Wild dataset,' meaning it 'closely approache[d] human-level performance.')[1]

The range of image datasets that AI now can train on is dizzying: all the world's plants, cars, faces, dogs, colours. In a famous machine learning training set, where networks once struggled to discern a fox from the field behind it, the same fox can now be separated and described by its age, weight, and species. The best machine learning system can tell what time of day it was in the field, describe its markings, and tell us what other companions are hiding in the field

behind it. Neural network papers give a sense of the many painstaking iterations needed to refine a vision system. Each year, the ImageNet Large Scale Visual Recognition Challenge asks competitors to train a neural network to try and identify objects within an image—like separating foxes from a grassy knoll. Each year these competing models classify images into 1000 different typologies with more precision.[2]

The rubric for evaluating these images as 'successful' is precision. Is the image high resolution and easily readable? Does it 'sharply represent' what we see? The other is the level of accuracy of tag-

If anyone can technically train a neural network, who gets to train the ones that organize our lives?

ging, naming what is there in direct, clear terms as possible. The result of all this computational power is a very basic level of clarity: the big man is on a field, the fox is in a field under the sun. The amount of complexity it takes to get here is staggering, and there is something elegant in the process, as scholar Peli Grietzer captures in depth, revealing how we also once learned the field-ness of a field, the triangular-ness of triangular objects, the fox-ness of fox-like creatures.[3] The process necessitates that images are boiled down to receptacles of assorted qualities that are isolated and determined to be significant. So vast and global is this effort that the computational production of this named reality appears as a truth.

If anyone can technically train a neural network, who gets to train the ones that organize our lives? Machine learning skips the jerky sorting and matching process that earlier vision recognition systems (from eight to ten years ago) undertook. It is a system that learns as we do, modeled after the structure of animal brains, in which neurons are layered. A machine learning system creates its own algorithms, rewriting them to more accurately identify patterns, as it learns from seeing the environment. It distributes this learning along a network of other machine nodes, each learning and

competing.

We may look at images with our eyes, but our lives are shaped by a different kind of partial, broken seeing that posits accuracy, that is made continuously through relational, active, and emerging algorithms. In much of the popular literature on neural networks, they are posited as dreaming, or as imagining images. But we don't solely 'dream up' images in our mind from some thick, gooey sub-conscious—and neither do these networks. We actively generate images through our biases, our memories and histories, our styles of narrative, our traumas. And just as training sets also 'reveal the historical, geographical, racial, and socio-economic positions of their trainers,' so do neural networks, seeing from the hilltop over the entire known world.[4]

Artists are tackling the gaps with humor. In Us, Aggregated (2017) artist Mimi Onuoha points out the absurdities in many of a search engine's classifications by working backwards.[5] She asks, 'who has the agency to define who 'we' is?' She uses her personal family archives, and runs them through Google's reverse-image search algorithms, and then frames the resulting photographs according to their labels. In Us, Aggregated 2.0, (2018) she frames the many diverse intimate photos that have been tagged with the basic label 'girl.'[6] In Machine Readable Hito (2017) Paglen worked with artist Hito Steyerl to make legible machine learning processes marking character and gender and personality.[7] They performed facial analysis of Steyerl's many facial expressions. In many where she is frowning, she is labeled as a man; in neutral or confused expressions, she is some percentage of female. The projects suggest how the standard of a good, right face, can reify extant politics of visibility, and suggest what the system sees as the norm for gender, the norm for emotional expression.

'Should we teach facial recognition technology about race?' reads a recent Wired headline.[8] Every few months, a comparable strawman headline agonizes over how tenable a partial model of the world can be. Even in our most advanced technologies, the dumb fantasy of a world without race or difference or weird outliers persists. And the results are dumb and dumber: pictures of stoves with men at them are still labeled as 'women.' More and more, the values—or willing blindness— placed into machine-learning technologies exacerbate

its shortcomings. Software is trained to categorize at scale 'to a high level of accuracy.' Note how that phrase, a high level of accuracy, becomes its own justification, despite the very best algorithms lacking the ability to use common sense, to form abstract concepts, or refine their interpretation of the world.

There are countless examples of flawed programmatic bias embedded in fallaciously-named 'neutral' imaging processes. The most infamous might be Google's 2015 'gorilla' PR disaster, in which photos of African-American employees and friends of Google employees were labeled as gorillas. Google responded by erasing the word 'gorilla' entirely from the library, such that its evolving image-recognition system, integrated increasingly across platforms, would not embarrass the corporation again.[9] The underlying issue was simple: the training sets constituted mostly white faces, as they were built by mostly white engineers.

We interpret images poorly or well in part because of political or cultural imperatives that are either open or closed. Visual recognition systems reinforce the violence of typing according to the same imperatives. There is a clear technological imperative to ignore through partial seeing, to support a social narrative, and a culture war. Every decision to name images becomes a profound ethical issue. While some engineers prefer a political agonism and that their codes be thought of as written in isolation from the outside world, their social impacts are too profound. The eye cannot just dispense its choices and float on.

Machine-learning engineers and designers deploying their vision systems must account for their blind spots instead of gesturing at the machine, offloading responsibility. That 'we all bleed red,' that 'we're all members of the human race,' that one feels they can be 'blind to race and gender,' should be called what they are: simulations of supremacy, in which everyone loses.

It's time to ask whether feel-good, individualist techno-libertarian sentiments that allow the eye to shut off to the effect of its own seeing, serve us as a culture. We must make a practice of actively naming the flaws embedded in bad seeing. We take seemingly innocuous computational interpretations of photographs and digital images to be political and ethical acts. There need to be

collaborative paths to a machinic naming that restores dignity and complexity of the imaged and imagined, with encoded sensitivity to context and historical bias, and an understanding of traditionally bad readings.

In this massive machine symbolic system we must still try to read intelligently. The great literary critic N. Katherine Hayles calls for us to carefully consider nonvisual aspects along with the visual when examining how networked machines see. Hayles's penchant for a 'medium specific criticism,' as Wendy Chun interprets it, means that we need to understand how a machine reads to critique it.[10] We see how technological design flattens our identities even as it gives the illusion of perfect self-expression; we have looked at the strange categorization and typing of ourselves along parameters of affect and trustworthiness. It is not a surprise that technology created through centralized power has watered a past promise down. What we have is a banal, distributed corporate information collection service running under the banner of intellectual inquiry. Its tendrils gather up our strong and weak desires to freeze us as consumers forever, progressive or not, Nazi or not.

Paul Christiano of Microsoft's OpenAI, one of the most distinguished thinkers on the future possibilities of artificial intelligence, has written recently that the question of 'which AI is a good successor' is one 'of highest impact in moral philosophy right now.'[11] Christiano does not shy away from what machines see, embracing their foreignness to our desires and needs, and their evolution into cognitive systems we understand less and less.

Companies will not open their black boxes any time soon, though ethicists, journalists, and activists vigorously advocate and shape the creation and deployment of AI towards more just and open frameworks, demanding accountability and transparency. Even if the black box stays closed, we do not need to willingly stay blind. We hold the responsibility of understanding an underlying ideology of a system that interprets images, and to fully grasp why it needs to pretend to be objective in order to function as a system.

The machine-machine seeing described in this essay demands we draw on all the critical faculties of seeing we have developed through history and have at our disposal, while also acknowledging

the crucial lacks in our critical visual language.

On one hand, we must stay alert to automation bias, in which we begin to value information produced by machines over ambiguous human observation. If the world begins to affirm the vision of the simulation, faith in the machine eye overrides all. But we need ambiguous observation, doubts, backtracking, and revision. These are qualities of careful thinking, to not make a set conclusion without revisiting assumptions.

I suggest we practice asking the same questions we might in critically evaluating art:

Is what I'm seeing justifiably named this way?
What frame has it been given?
Who decided on this frame?
What reasons do they have to frame it this way?
Is their frame valid, and why?
What assumptions about this subject are they relying upon?
What interest does this naming serve?

This is one step towards intelligent naming. This is where we might best intervene, to shift predominant attitudes and perspectives that shape virtual evidence and generate machine-machine knowledge. For truly nuanced naming of images of people, places, and things, we must practice breaking the loop, to consider and describe the likely frame and ideology being effected. Looking at dozens of personal family photos labeled 'girl,' can we articulate everything that is lost in that tag? What happens if we do not give the narrative? Can this break for rhetorical imagination, consideration, and reevaluation be built into the machine learning process? For now, these systems are obsessed, understandably, with the empirical, but once the world is named, how will these systems evolve, as we have had to in the world?

If I see an image of a mugshot of a man of colour online, and the tags 'arrests,' 'larson,' and 'battery,' I should take pause. Am I on looking at a government site of images in arrest records? Is the image floating freely in a spam ad, the kind that populates less reputable sites, paired with a CLICK HERE TO SEE CRIME IN YOUR AREA, unmoored from context and narrative? Does the man look like an immigrant, like someone in my own family? Am I looking at an alt-

right site filled with rabid xenophobic news on the border caravan and who is supposedly coming to get 'us' up in remote, landlocked towns? How am I seeing this image? What thread did I follow to get here? How long do I linger on this image before moving on, and what did that lack of careful looking produce in my mind? What bias

Can we build machine vision to be critical of itself?

of my own was affirmed, and what was instantly dissonant? Could I resist the urge to click on easily, or did it feel hard?

When I have misread a representation—meaning, when I have hastily made a narrative about an image, a person, their presentation—I recognize that a mismatch has occurred, between reality and my false virtual evidence. I had instantly decided that specific visual cues mean something certain or likely true about the internal life of a person, about their possibility, though I know how foolish that is in practice—and how painful it is to experience. In the world, we do this constantly, in hurtful and unjust—but ultimately revisable—ways. If I walk into a job interview disheveled with holes in my clothes, the interviewer might assume I both didn't care about the job, and that am in some kind of distress. They may immediately assess me as not employable, no matter how fit I am for the job. I'm not fit for the mental work with holes in my clothes—this is a quick, dashed off-decision that we make an allowance for through a social understanding in which people who want jobs will dress the part.

Can we build machine vision to be critical of itself? Even as we learn to see alongside the machine, and understand its training sets, its classifications, its gestures, these must be more intervention points, in which corrections, adjustments, and refinements accounting for history, for context, for good reading of images, is made. There may be a fusion of the sensitivities and criticality we use for human visual image interpretation with the language specific to machine vision. Machine learning can be improved to be fair,

checks made rigorously for statistical parity to check what groups or races are being classified incorrectly by the algorithmic eye.

But Paglen isn't convinced. 'It's not just as simple as learning a different vocabulary,' he notes. 'Formal concepts contain epistemological assumptions, which in turn have ethical consequences. The theoretical concepts we use to analyze visual culture are profoundly misleading when applied to the machinic landscape, producing distortions, vast blind spots, and wild misinterpretations.'[12] To counter, some suggest that what we need is better-tagged training sets of images, more accurate ones 'without bias,' so we will be seen perfectly, and we will then be treated well.

The gesture to enforce 'algorithmic violence,' as Mimi Onuoha has written, is perhaps the most terrifying example of what we're up against.[13] An AI paper from two years ago suggests that we could figure out who is a criminal based on their cheekbone height, eye size, and general facial structure. In other words, a criminal could be predicted, determined by a 'type' of face—where eye size, nose structure, and other elements in a data set of convicted criminals are extrapolated to form a model for what a criminal type is—in effect, a self-enforcing loop in which the biases and limits of the dataset are not accounted for.

It seems a total fallacy that a computer vision algorithm would have no subjective weight or baggage. Even though we understand this claim is impossible, it remains the most prevalent idea in technological development. A neural network, as magical and strange as it can seem, is always produced by biases, desires, interests, bad readings, creators, and engineers with no regard for society who throw up their hands to say, 'I only make the thing!' For a neural network to read the image 'objectively,' it would have to not be made by human hands or run on historical data of any kind.

But the desire for a 'perfect' dataset in which people are seen perfectly is misguided; when are we ever seen perfectly? Why can't we demand this machine eye be better than our own occluded, hazy, partial, lazy seeing? Maybe it isn't perfect seeing, but critical seeing that we need. Critical seeing requires constant negotiation. We negotiate incorrect or imprecise naming through revision of our own beliefs. When we see, we take in the 'data-points' of an image:

colour, form, subject, position. We organize the information into a frame that we can understand.

Some of the more doom and gloom accounts of modern AI and vision recognition suggest all is lost; that we are victims of addictive neurobiological targeting tools, slavishly trained to obey a high resolution display. Even as this new visual culture becomes more unwieldy, more insane, the sources of images more impossible to define, the ways they are marked unreachable, we are still supposed to evaluate our own judgments about the truth or reality of an image. In more humanist (and moralistic) veins of theory, seeing is always an ethical act: we have a deep responsibility for understanding how our interpretation of information before us, physical or digital, produces the world.

Without doubt our cognitive capacity is being outstripped, and precisely for that reason, there is no better moment to reassert the value of critical seeing. We have evolved cognitively to be able to negotiate visual meanings, holding them lightly until we have contemplated and thought through the questions above. It is imperative to do so when looking at any image passed through machines. As this is already incredibly hard to do, we might need more flexible frameworks through which to evaluate the construct of machine vision and its suggestion of value and truth. We have to be more critical visual readers, because we are ultimately the bodies and lives being read.

Recall how machine learning can be both supervised and unsupervised. Our own perception and meaning-making is similar to 'unsupervised deep learning.' We too learn to make patterns out of the 'data' of what we see, noting differences and similarities, confluences and comparisons, from one image to the next. In our comparison of images, we create narrative representations, a sense of the world, and a corpus of representations that we carry out in our life. But we also are built to grow in response to resistance, and to the harm we cause. Training sets—which form beliefs—might be subject to this same provisional process, in which the choices of tags, simulation parameters, and mechanics across difference, are subject to revision. A final decision is made after a wider group of ethically minded stakeholders, literary scholars, and social scientists, hypothetically, compare and debate interpretations and

frames.

In Benjamin Hale's short story 'Don't Worry Baby,' a woman, her child, and the child's father leave—possibly escape—an anarchist commune in the '70s.[14] The story takes place on the plane ride back to the States. The woman accidentally takes a powerful hallucinogenic slipped into a piece of chocolate by the cultish father of her child. He tells her to just ride it out. As she holds their baby in her lap, she begins to feel her perception softly morph, and shift.

What follows is a viscerally awful sequence, as her synapses flood with the drug: the father's face disintegrates, the forms of other passengers in the claustrophobic, cigarette-smoke filled plane cabin fall away. She hears language as symbols, and sees faces as

Settling in partial comfort with unknowing is endemic to our survival. We actually need to be able to create partial models of the world.

signs. She feels everything moving inside of her, from the cilia in her gut to how her veins move to help her pass milk into her child. Mid-flight, the child's eyes reveal themselves as dilated. This is a total loss of control: the mother suffers through a hellish, speechless meltdown as she can no longer read her child's face. It is locked far away, 'in its own mind,' turned completely inward.

The story's drama arises in part from the implied unraveling the utopian order of the commune and its worldview, where each person had a sure role, a sure name, and a position in tightly proscribed bounds of the social order. Plummeting through this psychological horror, the reader feels how tenuous our hold on reality is, how deeply tied it is to facial recognition and cognitive faith, how quickly a sense of safety is lost without it. One screwy, distorted face unpins the fabric. We see how closely allied seeing is to naming and knowing. We get the sense that this unmooring is also an opportunity; a face that is only partly readable can be a challenge for better reading. A better visual reading can expand our

sense of possibility. This is of course the power of surreal images, which confound, defamiliarize, shift the frame of what one assumes is true.

Settling in partial comfort with unknowing is endemic to our survival. We actually need to be able to create partial models of the world. Very rarely do we have all of the information of reality around us. The versioning of programming implies that constant revision and rewrites are essential, as in any language. It's unclear whether machine learning as it is being currently designed—at the scale it is seeking—even has space for such 'unknowing,' for provisional change of the dataset's vigorous naming. It would seem removing criticality is necessary for machine vision.

I return here to Detroit, a city that has been consistently abandoned, abused, and defunded. The most vulnerable who are hovering right at 35 per cent unemployment are of course the demographic most affected by the green light eyes of T.J. Eckleburg over the ruined cityscape. Project Green Light, combined with facial recognition software, combined with license plate reading, means that a person with a suspended license can be arrested while walking into a pharmacy to get cough medicine.

PredPol is a company that sells software that uses a predictive policing algorithm, which is itself based on an earthquake prediction algorithm. To predict crime, the software uses the same statistical modeling used to predict earthquakes, a method that researchers have named as too simple and deeply flawed to be used. The company's data scientist compares crime modeling to 'self-excitation points' and posits the forecast is made of 'hard data,' and is objective and fair, allowing police to offload their decisions to police a red-outlined area to 'the machine.'[15] The software does not take into account the most deeply unethical issues involved in policing: what the police's predispositions to the red zone are, how the police already seek to penalize petty crime more in some neighborhoods than others ('broken windows' policing), how they target and harm people of colour more than non-. PredPol masks its data input, which is flawed and deeply biased arrest records. In using supervised machine learning to send police out to the same area, the model is, as Caroline Haskins reports, only predicting how an area will be policed, not how crime will occur.[16]

All this set aside, the police now can cite that the software's heat map led them to where a crime might occur. The conceit of PredPol is almost beyond comprehension: that we can produce a predictive map of where crime is likely to occur by tracking 'human excitation' or excited movement (defined loosely) along city streets. This heat map, combined with facial recognition software that tries to guess at criminal facial structures, opens up a nightmarish realm of possible abuse, where police are now shielded by the 'lack of bias' of machine learning. This has been widely argued as an example of technology used to wash away racially oppressive and violent tactics and mass surveillance.[17]

Earlier this year, PredPol went a step further. They were funded by the military to 'automate the classification of gang-related crimes,' using an old map of gang territory and previous criminal data, which is well known to be highly biased, anti-black, and in favor of the overstepping power of the police.[18] The trained neural network 'learned' to classify a gang affiliation, and a gang affiliation would add to sentencing time and fines, earning money for the police department or county, say, that decided to use it.[19] At the conference presentation, the research study's co-author, Hau Chan, junior co-author, was met with outrage from conference attendees. He stated 'I'm just an engineer' in response to questions about the ethical implications of the research.[20]

Most disturbing here is that the one mitigating ethical pause, the human factor— an actual person who would read and evaluate the narrative text which police had to collect about the supposed gang arrest itself—was the most costly factor and so eliminated. The neural network, according to Ingrid Burrington and Ali Winston, would instead generate its own description of the crime, without a single human being reading it, to then be turned 'into a mathematical vector and incorporated into a final prediction.'[21]

Not only would this AI-generated description be flawed and completely mismatched, the use of historical crime data means that future crimes could be described as gang involvement, making 'algorithms of a false narrative that's been created for people … the state defining people according to what they believe.'[22] They'd then set the system to run without oversight, making a policing process that is already fraught with abuse as authoritarian as possible.

Geographic bias encodes racial bias, and without talking to a single human being, a city is remapped and reformed. The god's eye view comes right around, AI enforcing exactly what its makers want to see in the world.

This is the likely future of AI seeing us at scale. Let's look back to the green lights in Detroit. Once this $4,000 surveillance camera is installed to channel data back to a Real Time Crime Centre, the Detroit Police department notes they hardly have manpower to surveil all the cameras all day long. The partial seeing of street surveillance

Racial capitalism, weak machine learning, and algorithmic surveillance intersect to create a world that is not better seen, but less seen, less understood, more violent, and more occluded.

is much the same seeing as some police practice while looking at members of marginalized and high-risk, high poverty communities. A former chief in litigation at The Department of Justice's Civil Rights Division has noted that Project Green Light is a 'civil liberties nightmare,' in which money is poured out of communities into these cameras, enforcing a further 'hands-off' approach to neighborhoods already desperately underserved, without adequate education, employment, or housing opportunities.[23] Nightmare it may be, but the green lights were still installed in food deserts, at the most trafficked areas for staples for miles.

Racial capitalism, weak machine learning, and algorithmic surveillance intersect to create a world that is not better seen, but less seen, less understood, more violent, and more occluded. In a nation where anti-blackness is and has been the institutional and cultural norm, and is an enormously lucrative position, hoping for the Green Light program to reprogram itself, to offer up a 'provisional space' in which surveillance is somehow rethought in its methods and outcomes, seems facile. The system is working for them as is.

So in place of civic and human investment are machine vision cameras, promising security and peace of mind for owners, creating a

self-affirming loop. This might work in some cases, but it is overall more disastrous for the vulnerable, as it opens overpoliced communities to the specter of punishment at any possible moment. A population desperate for services, for good governance, is forced to see this devastating possible surveillance as a net positive over nothing at all.[24] A freeze frame of a camera feed in an area with a 'predilection to crime' can be pulled, a subject in that frame can be used as evidence, their misdeeds imagined or maybe real (a suspended license, say) but named as a likely crime. The photo is held as a prompt for punishment along an endless scale of time. Determined by the freeze frame, they are given a new fingerprint of who they are, of what kind of person they are likely to be.

Abuses of machine vision are not hard to imagine. Think of immigration authorities with a camera feed on a wide city street on a southern Californian city, seeking out a general description of a six-foot tall individual in jeans, in a nighttime crowd. The reading of license plates forms the meat of databases, as the numbers are photographed, read, stored, and then sold to companies. Cameras sit in the foyer of banks, watching expressions as we look at our bank account.

Looking up from the street to the camera, we begin to understand how our 'individual realms of personal power,' to use Stewart Brand's motto in the Whole Earth Catalog, have reflected a very narrow vision of the world back to us.[25] Our knowing became channeled through violent, tired logics. But technological design has become so powerful that it can be used to persuade users to desire, and strongly suggests they should even want the world totally made in their image, reflecting those desires.

It's in the interest of this machine eye to create a plethora of life signatures for us. We become profiles—avatars—rich with recorded experiences, filling a demand to be legible for companies, municipal organisations, and bureaucracy to hone in on. There's no break between the constructed model that's underneath the world and the reality that is produced.

We might ask, if AI is able to learn language on its own at levels of unprecedented mathematical complexity, then why shouldn't we have better models of people, with added layers embedded for his-

tory, context, and drags they place in simulations that account for trauma and oppression? Is it that we just can't yet imagine a simulation that isn't from a god's eye view? Can we imagine the machine eye can tumble from the top of the hill to the wild below, down to the ground and in it, that it can see beyond the flesh for each individual, unmoored, roving, seeing in every direction at once? What simulation of society would this eye produce, recognizing, seeing, and accounting for what is hard to model?

If you were to fill out a god's eye view of society, what bodies do you imagine in it? What do you look like in this simulation? What exactly is the model of your body moving through time? What does this simulation account for, or not account for? What hidden or not sensible qualities are erased? What are you able to name easily? What are your blind spots? What should the machine eye visualize that you cannot? What is the simulation of America in which a person of colour lived a full and healthy life? In which the mentally ill were cared for? In which debt slavery was abolished? In which racialized capitalism was acknowledged as real and accounted for in all aspects of society? What could technology look like if it were not built around efficiency alone, if history and narrative context were not costly aspects to be erased, but in fact essential to a complete simulation? How would our seeing, naming, and knowing change, if the practice of technology was not framed so relentlessly as constituting objective observation of phenomena, but instead as an active creator of an illusion of empirical, measurable, stable, and separate world?

Future ideology in technology might abolish the idea of a tabula rasa as a starting point, which has failed us over and over again. We might experiment with a worldview that does not look down at the world from the hill. Instead of starting over, we insist on not being empty models. If we are to be predicted, let us be seen and represented and activated and simulated as difficult, complex, contradictory, opaque, as able to change, as comprised of centuries of social movement and production, personal history, and creative, spontaneous, wild self-invention. Let us see back into our machine eye as it sees us, to try and determine if it even imagines us living on in the future. If not, we must engineer worlds that produce a reality that is bearable, in which we are seen in full.

1. DeepFace: Closing the Gap to Human-Level Performance in Face Verification. Found at: http://www.image-net.org/challenges/LSVRC/

2. 'Large Scale Visual Recognition Challenge (ILSVRC).' ImageNet Large Scale Visual Recognition Competition (ILSVRC), www.image-net.org/ challenges/LSVRC/. Currently, Convolutional Neural Network (CNN) models do very well on visual recognition. Researchers check their work against ImageNet, with iterations in models getting stronger and image datasets (Inception, on to Inception-v3) better each year. For a fantastic walkthrough of deep learning explanation, see Colah on Conv Nets: A Moderular Perspective: https://colah. github.io/posts/2014-07-Conv-Nets-Modular/, which is easily one of the most readable primers, or check out https://www.learnopencv. com/deep-learning-based-object-detection-and-instance-segmentation-using-mask-r-cnn-in-opencv-python-c/).

3. For a stunning tour-de-force work by a literary theorist on auto-encoding, cognitive mapping, the aesthetic complexity of machine learning, please see Ambient Meaning: Mood, Vibe, System, Peli Grietzer's dissertation written as a Harvard Comparative Literature student in 2017. The above is inspired by Grietzer's discussion of children's mental, geometric compressions: 'We might think about a toddler who learns how to geometrically compress worldly things by learning to compress their geometrically idealized illustrations in a picture-book for children. Let m be the number of sunflowers, full moons, oranges, and apples that a toddler would need to contemplate in order to develop the cognitive schema of a circle, and n the number of geometrically idealized children-book illustrations of sunflowers, full moons, oranges, and apples that a toddler would need to contemplate in order to develop this same cognitive schema …' Found at: http://marul. ffst.hr/_bwillems/fymob/ambient.pdf

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11. Paul Christiano, 'When Is Unaligned AI Morally Valuable?' AI Alignment, 3 May 2018, ai-alignment.com/sympathizing-with-ai-e11a4bf5ef6e?gi=f81396e3c39d.

12. Paglen, 'Invisible Images.'

13. Onuoha, Mimi, 'Notes on Algorithmic Violence,' found at: https://github.com/MimiOnuoha/On-Algorithmic-Violence.

14. Hale, Benjamin. 'Don't Worry Baby.' The Paris Review, 25 Oct. 2016, www.theparisreview.org/fiction/6434/dont-worry-baby-benjamin-hale.

15. Described in detail in: Haskins, Caroline. 'Academics Confirm Major Predictive Policing Algorithm Is Fundamentally Flawed.' Motherboard, VICE, 14 Feb. 2019, motherboard.vice.com/en_us/article/xwbag4/academics-confirm-major-predictive-policing-algorithm-is-fundamentally-flawed.

16. Ibid.

17. For a deep, intensive survey of algorithmic policing and the politics of PredPol, please see Jackie Wang's excellent book, Carceral Capitalism (MIT Press, 2018), a chapter of which is excerpted here: https://www.e-flux.com/journal/87/169043/this-is-astory-about-nerds-and-cops-predpol-and-algorithmic-policing/

18. Winston, Ali, and Ingrid Burrington. 'A Pioneer in Predictive Policing Is Starting a Troubling New Project.' The Verge, 26 Apr. 2018, www.theverge.com/2018/4/26/17285058/predictive-policing-predpol-pentagon-ai-racial-bias.

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Nora N. Khan

Nora N. Khan is a writer. She writes criticism on emerging issues within digital visual culture, experimental art and music practices, and philosophy of emerging technology. She is a professor at RISD, in Digital + Media, where she currently teaches MFA graduate students critical theory and artistic research, critical writing for artists and designers , and history of digital media. She is a longtime editor at Rhizome based at New Museum in New York. She is currently editor of Prototype, the book of Google's Artist and Machine Intelligence Group forthcoming in spring of 2019. In 2020, she is the Shed's first guest curator, organizing Manual Override, an exhibition featuring Lynn Hershman Leeson, Sondra Perry, Martine Syms, Morehshin Allahyari, and Simon Fujiwara.

Khan's writing practice extends to a large range of artistic collaborations, which includes shows, performances, fiction for exhibitions, scripts, and sometimes, librettos. Last year, she collaborated with Sondra Perry, Caitlin Cherry, and American Artist to create A Wild Ass Beyond: ApocalypseRN at Performance Space, New York.

Her most recent work is a short book published by The Brooklyn Rail, titled Seeing, Naming, Knowing. She consistently publishes criticism in places like 4Columns, Art in America, Flash Art, Mousse, California Sunday, Spike Art, The Village Voice, and Rhizome. Last year, she wrote a small book with Steven Warwick, Fear Indexing the X-Files, published by Primary Information in New York. She has contributed essays and fiction to exhibitions held at Serpentine Galleries, Chisenhale Gallery, and the Venice Biennale, within books published by Koenig Press, Sternberg Press and Mousse.

Her writing practice has been supported by many awards over the last decade, including, most recently, a Critical Writing Grant given through the Visual Arts Foundation and the Crossed Purposes Foundation (2018), an Eyebeam Research Residency (2017), and a Thoma Foundation 2016 Arts Writing Award in Digital Art for an emerging arts writer. Here is a good interview with Khan about her writing practice.

General Interests: Understanding grounding ideology beneath technology; how we manage to express joy and wonder, and maintain our creative energy, within the bounds of increasingly oppressive systems; how to consistently ground analysis of creative work in the social, political and material realities that make the work possible; the ongoing play between affect, cognitive studies, and emerging technology; how new tech- makes us feel, think, and relate to one another in new ways; the hope of digital, networked, and virtual systems that might just allow for a more open, learned, and compassionate world.

Transfiguration (2020) | Audiovisual Installation

Transfiguration (2020) is a reworking of the Universal Everything studio classic from 2011. The Transfiguration was first shown at the studio's first major solo exhibition Super-Computer Romantics at La Gaite Lyrique, Paris. Now completely remade using the latest procedural visual effects software, the updated CGI artwork brings new life to the ever-evolving walking figure, with a new foley-based soundtrack by Simon Pyke.

UNIVERSAL EVERYTHING (UK)

A remote-working collective of digital artists, experience designers and future makers.

ABOUT THE CONNECT FOR CREATIVITY PROJECT

Connect for Creativity is an 18-month project led by the British Council, in collaboration with ATÖLYE and Abdullah Gül University in Turkey, BIOS in Greece and Nova Iskra in Serbia.

The Project is part of the Intercultural Dialogue Programme led by Yunus Emre Institute and co-funded by the European Union and the Republic of Turkey.

Based on the concepts of empathy, engagement and empowerment, Connect for Creativity aims to strengthen intercultural dialogue through supporting creative hubs and their communities to come together, exchange ideas and experience, and encourage new creative collaborations.

EMPATHISE

Endorses mutual trust and confidence.

ENGAGE

Builds interactions and dialogue.

EMPOWER

Creates potential.

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September 2020

"I have to send you back to the 'just stay where you are to stand.' position!"

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