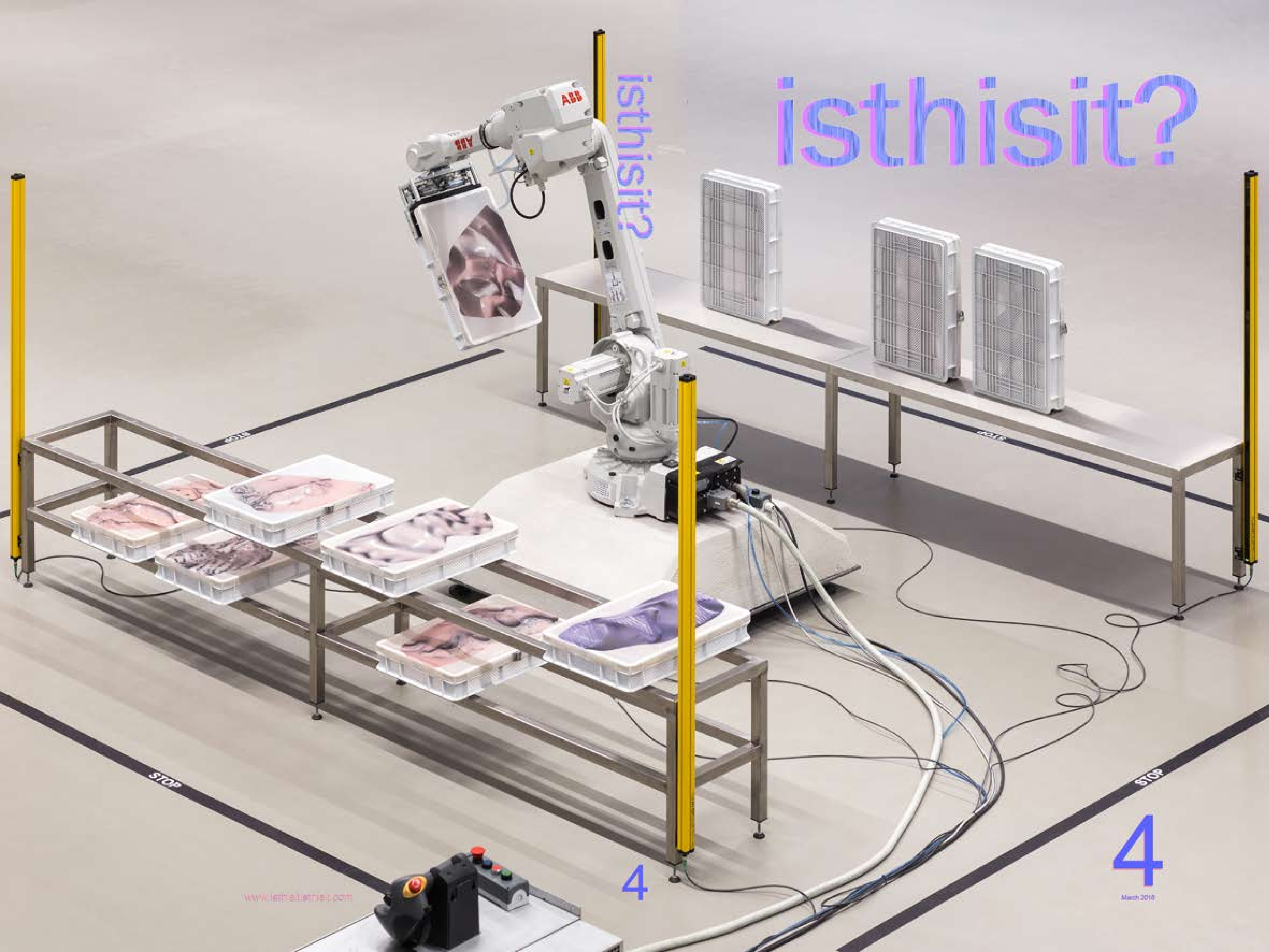


# isthisit?

isthisit?



# isthisit?

ISSUE 4

Edited by Bob Bicknell-Knight

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'I'm sorry, I didn't quite catch that', a statement of sorts almost ingrained into my mind from wielding an iPhone with the in-built Artificial Intelligence (AI) known as Siri for the past five years. This response, seemingly obtained by silently murmuring into your microphone, will soon become an announcement of the past, an anecdote that Millennials and early Generation Z's will gleefully tell their screen obsessed children about through their hyper realistic virtual reality goggles, developed by Amazon and distributed via their nearest drone depot. Exaggerated encounters with early AI assistants will proliferate these virtual encounters, the augmented elderly telling of a time that saw Siri and Alexa unable to participate in any given social situation. Simultaneously the in-house AI will refill everyone's digital glass, laugh politely at the gentle mockery of their ancestors and experience a thousand similar scenarios concurrently occurring across the globe.

A stereotypical scenario akin to this one is inevitable. The introduction of industry 4.0 has seen a revolution in autonomous production, the Internet of Things continues to evolve, intent on establishing smart homes throughout the western world and our lives continue to be shaped and quietly adjusted by unclear algorithms. Will the autonomous world of the future be a utopian paradise, where intelligent AIs and augmented beings work side by side, enabling the widespread adoption of a universal basic income, freeing the world from jobs deemed repetitive and tedious? Alternatively will we as a race eventually become irrelevant, catering to our complicated human needs whilst mechanical robots rise up,

conspiring to push us into a new age of mass unemployment?

The following book seeks to deconstruct these contemporary issues, featuring a range of artworks, essays and interviews exploring how AIs are currently utilised within society, from automated empathy to subtle photographic manipulation, investigating dystopic futures and utopian ideologies.

Bob Bicknell-Knight, director of *isthisit?*

The following book features contributions from !Mediengruppe Bitnik, Aaron Vergult, Addie Wagenknecht, Anne De Boer, A. P. Vague, Ben Richards, Bob Bicknell-Knight, Bora Akinciturk, Constant Dullaart, Dominic Dispirito, Eleanor Hill, Elvira Højberg, Émilie Brout & Maxime Marion, Emma Stern, Erica Scourti, Eva & Franco Mattes, Harm van den Dorpel, Iain Ball, Jack Thurland, Jakob Kudsk Steensen, Jamie Jenkinson, Jillian Mayer, Joachim Coucke, Joey Holder, Jonny Tanna, Joshua Citarella, Julia Faber, Marie Munk, Mathew Zefeldt, Mathias Jansson, Mit Borrás, Nina Coulson, Olga Fedorova, Pakui Hardware, Penny Rafferty, Sarah Derat & Rachel McRae, Sid & Jim, Stephan Backes, Stine Deja, Thomas Grogan, Thomas Hämén, Trystan Williams, Wade Wallerstein and Yuri Pattison.





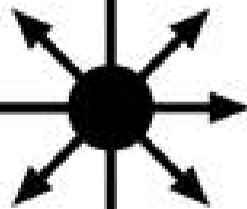


**Introduction**

2017 marks the year where more smart, connected objects and devices are operational than human beings alive. A milestone that marks the increase in speed on how advanced technology is being produced and embedded into our daily lives. These 8.4 billion connected 'things' show an increase of 31 percent compared to 2016 and is predicted to reach 20.4 billion in 2020.1 Its most popular application is in consumer products counting for 63 percent of all devices part of the 'Internet of Things' (IoT). This version of IoT allows for a one-on-one form of communication between user and device. Mostly these systems are applied in smart homes as door locks, televisions, fridges, thermostats, power plugs and light switches. Equipped with sensors, the device, connected through Bluetooth or WiFi to a smartphone, tablet or computer allows the user to monitor and remote control. The sensors are used to signal what the status of its connected device or local surrounding is. Its use in business remains smaller, but will grow due to the essential tasks IoT performs in automated processes and monitoring of security and efficiency. Essentially the development of smaller, smarter and more advanced sensors, will allow for all sorts of applications connecting production lines with transport, workplace, home and even clothing. Underlining the potential IoT offers, the World Economic Forum (WEF) marked its development as one of 'the Six Megatrends'<sup>2</sup> shaping our society.

*you i i i everything else . . . . .*

Anne de Boer



## The Six Megatrends:

**People and the internet Computing, communications and storage everywhere  
The Internet of Things Artificial intelligence (AI) and big data The sharing economy and distributed trust The digitization of matter**

In a survey the WEF asked experts to react to 21 potential technological shifts, and when or whether they thought it could go into mainstream. A list was created with the most likely 'tipping points' expected to occur by 2025 (img). The following selection of these 'tipping points' indicate prospective events within the next 10 years of developing IoT:

**10% of people wearing clothes connected to the internet 1 trillion sensors connected to the internet 10% of reading glasses connected to the internet The first 3D-printed car in production The first government to replace its census with big-data sources 5% of consumer products printed in 3D 90% of the population with regular access to the internet Driverless cars equaling 10% of all cars on US roads The first transplant of a 3D-printed liver Over 50% of internet traffic to homes for appliances and devices The first AI machine on a corporate board of directors**

We will explore three significant trends and developments in IoT by using previous prospects as guidelines for a speculation into

a potential future. First, we will dive into Amazon's Alexa, an Intelligent Personal Assistant that functions as an operating system to all IoT devices inside the house. The way that Amazon brings forward and develops Alexa is significantly different than similar systems available such as Siri and Google Home. Through these differences the future capacity of Alexa will unfold, setting it free from the confinement of a home. Continuing, we will explore the way manufacturing processes are changing under the fourth industrial revolution – labelled as Industry 4.0. This highly optimized form of manufacturing transforms the notion of a factory as building into that of a brain. Comparing Alexa with Industry 4.0 we will notice similarities between the two transformations, which forms a base for exploring Society 5.0. The latter is a large transformational plan laid out by the Japanese government attempting to create a 'Super-Smart-Society'. We will conclude with a counter pose wondering about the place of stupidity and obsolescence within these highly connected, optimized systems.

## Alexa

*"We are now interacting with Technology in the most natural way possible; by Talking! People talk to their Amazon Echo every day. And while it's been love since the first conversation, what people really love is: Alexa! More than the voice of Echo, she's the brain behind millions of Alexa enabled devices. Understanding and replying to questions in seconds. And while she's great at weather updates and playing*

*music; that's just the beginning. Alexa has infinite abilities, we call these skills. Developers have already created thousands of Alexa's skills. And the selection is growing every day. Developers are making Alexa smarter with every skill they create; helping you plan dinner or ordering it for you, powering your smart home, or getting you out of the house. [...] We've started with Alexa in the Amazon Echo, Echo Dot, Amazon Tab, and Amazon Fire TV. Where she goes next and what she'll say is up to you! The only question is: What will you Create?"<sup>3</sup>*

Amazon's Echo is another addition in a current race of several companies in creating the most popular 'Intelligent Personal Assistant' (IPA). By giving voice commands to the cylindrical device you control different devices in your house, turn on lights, play music, ask for recipes, order an Uber, get news and updates etc.

Amazon's Echo is not unique in its kind and similar devices are around of which Google Home is probably its most significant competitor. Google's device is controlled by its famous 'OK Google' command, activating Google to assist with whatever question you have. Where the devices look, and operate very similar, a distinct difference is the way the two companies present the brain inside the device. Google does not mention anything about a separate 'character' but instead focusses on the convenience of connecting devices with each other through Google. Amazon in contrast, focusses explicitly on a separate brain called Alexa. Alexa is not just there to connect devices with each other, but instead grows as a character developing its

own 'skills'. This skillset is an ever-growing database of things Alexa can do, developed through an open-source structure in which anyone can contribute and modify skills. These skills in turn are available via the Amazon website to be installed into your own Alexa enabled device. By giving an Artificial Intelligence the name 'Alexa' and using terms as 'brain' and 'skills', it seems that Amazon is striving for a Sentient type of Artificial Intelligence, straight out of Sci-Fi novels and movies.

The way Alexa operates, as well how the Echo looks like has, for example, much in common with HAL 9000 in Kubrick's '2001 Space Odyssey'. A similarity not unnoticed by Alexa itself, when being asked to "open the pod bay doors", she systematically answers: "I'm sorry Dave, I'm afraid I can't do that. I'm not HAL and we're not in space".<sup>4</sup> Both HAL and Alexa speak in a calm soft tone, taking care of the tedious process of operating a spacecraft or house, while you sit back and relax. Eventually HAL defies its human 'master', while Alexa still seems to obey much of the commands given. But by giving Alexa 'skills', Amazon potentially allures a wish for it to gain a similar independence to that of HAL. The only way Alexa can operate as central brain to other devices, is when these have a capacity of monitoring and communicating information to that brain. The development of Alexa is therefore partly dependent on what skills it has, but as well to the number of objects it can monitor and control.

**Fast Forward to 2025:**

**10% of people wearing clothes connected to the internet**

**1 trillion sensors connected to the internet**

**10% of reading glasses connected to the internet**

Significant in the prospective development of IoT is the development of connected clothing. Here we see a shift from the IoT connecting merely devices to each other, to something as intimate as the clothing we wear. This shift itself is technically not dramatically different than having a smartphone in your pocket, but constant direct contact with the body increases monitorization on physical reactions to environments and events. Currently the Apple watch is doing a light version of this, monitoring your heartbeat and movement whilst constantly on your wrist. When becoming tense or not having moved for some time the watch reminds you to “teak a breath” or “stand up and move a little for a minute”.

These apps deliver a user experience in which it directly activates you to change a part of your habit, resulting in less stress and hopefully a healthier body. As such you do benefit of such apps by improving your habits into a less stressed and healthier body, but pay a price on your privacy. Especially these types of data combined, gives a company such as Apple, Google or Amazon a much more accurate profile of their customers. Imagining the extended number of sensors that will be mounted into your clothing gives a faint idea on the amount of data you are generating. Each sensor’s data is probably not that telling on

your behavior and can be perceived as quite harmless. However, the moment these different observations are being combined, very useful and accurate information can be subtracted. How do you react to advertisement, colors, sounds, locations, etc.? These are all sorts of information that, through algorithms, can be categorized in behavior patterns. If that information is directly accessible to Alexa, it no longer need to respond to voice commands given, but could anticipate instantly on the acute data it receives.

*Feeling a bit stressed? Without asking calming music fades in, pad-thai is on the way, and halfway through diner the bath is starting to fill with lavender salt and water on a temperature of 37.7°C. Just before the bath becomes too cold, a warm cup of herbal tea is served in the living room. Enjoying the warm glow of soothing chamomile, Alexa starts a chapter of ‘The Miracle of Mindfulness’ by Thich Nhat Hanh (Amazon recommended read to relax). Finally, in bed the 2200K light fades out; “my pleasure” is the last thing you hear soft and faint, while slowly sinking into a deep relaxed sleep.*

The extended utilization of sensors essentially bundles all interfaces into one, namely your body. Your temperature becomes the instant control for your radiator, heartbeat for playlist, ghrelin (hormone that induces appetite) for Deliveroo. The separation of body and technology fades in a literal sense, strikingly similar to Donna Haraway’s cyborg – “a cybernetic organism, a hybrid of machine and organism, a creature of social reality as well as a creature of fiction.”<sup>5</sup> To Haraway the cyborg

forms a key into breaking dualisms as “self/other, mind/body, culture/nature, male/female [...] maker/made, active/passive, right/wrong, truth/illusion.”<sup>6</sup> Body/Alexa/IoT could be understood in that cyborgian way, in which the workings of these different systems are so interlinked that a division of any individual part becomes obscured.

Body/Alexa/IoT as a cyborg coming to life, with its physical development well on the way, allows for a reflection on its behavior and whether it has the emancipatory capacity Haraway hoped for. In her book ‘Technofeminism’ Judy Wajcman gives an extended account of women’s emancipation in relation to technological development and change in work. Here she describes that “the MIT ‘House of the Future’”<sup>7</sup>, alike Alexa and the IoT, seem to “have little interest in housework”<sup>8</sup>. Wajcman notes that “Home informatics is mainly concerned with the centralized control of heating, lighting, security, information, entertainment and energy consumption in a local network or ‘house-brain’. [...] The target consumer is implicitly the technically interested and entertainment-oriented male, someone in the designers own image. The smart house is a deeply masculine vision of a house, rather than a home”<sup>9</sup>. Amazon reinstates this description by, not surprisingly, choosing Alexa as a female interface to an ‘Intelligent Personal Assistant’. Alexa “represented as female is potentially about diminishing the threat that intelligent machines might pose to their human creators. It may also reflect the fantasy of system designers, in a service economy predicated on female labour, who

dream of being relieved of the mundane work involved in servicing themselves.”<sup>10</sup> In Wajcman’s opinion the “‘cyborg solution’ risks fetishizing new technologies [...] Haraway and those influenced by her give semiotics precedence over materialist aspects of technoscience.”<sup>11</sup> To Wajcman the emancipatory power does not lay inside the technology itself, but how society inserts or subverts the working of that technology.

### **“Alexa: play some music”**

In combination with an Amazon Prime account, Alexa offers the opportunity to stream music “anywhere, anytime, ad-free and on-demand”.<sup>12</sup> Besides music, Amazon offers unlimited streaming of series, movies, books, magazine, etc. Much of this content is produced and published by others, but Amazon is entering this market by producing their own series and movies. This shift is interesting considering the parallel development of Alexa as a tool to constantly assist and answer to the demand of its user. For Alexa to be able to understand that demand, it needs to figure out the preference of a user, and under what circumstances these occur. As speculated before, Alexa will grow a large sensorial capacity, of which every monitorization will be logged into large datasets. This type of information is labelled as ‘big data’ in which sophisticated algorithms are needed to reveal patterns and associations in behavior.

Over time Alexa will understand much better the workings of, not just one, but the millions of people using Alexa’s service. Based on the

content Amazon currently provides, we can imagine how Alexa can use its 'big database' to provide everyone with the 'optimal' content. Its working not too dissimilar from current Amazon recommendations; "Customers who viewed this item also viewed". But what if the user's preference can be analyzed so precise that none of the existing content matches up? Taking Netflix as an example we can see that big data is already playing a role in what series are commissioned. By gathering data when individual subscribers pause, stop watching, move to other series, preferences of genre, Netflix predicts what type of series could become a success. House of Cards is an example of a series which Netflix knew would be popular based on its subscribers' big data.<sup>13</sup> Taking this a step further we might see that Amazon will be able to intervene much earlier when a series loses popularity, by using Alexa's data gathered of its users. Scripts could be developed while the audience is watching, using their response as a feedback for the progression in the next episode. Other content in the Amazon pool such as songs and books might become mixes of different authors, in which every individual user gets its own individualized narrative, lyric or melody. Getting bored of your own preference? Alexa is shuffling right away!

In this configuration, Alexa performs Barthes' 'Death of the Author' in front of your eyes. "In this way is revealed the whole being of writing: a text consists of multiple writings, issuing from several cultures and entering into dialogue with each other, into parody, into contestation; but there is one place where this multiplicity is collected, united, and this place is not the

author," but Alexa; "the unity of a text is not in its origin, it is in its destination; but this destination can no longer be personal".<sup>14</sup>

### Industry 4.0

In current manufacturing processes, we see a shift from semi-automated factories to a more complex and increasingly autonomously operating factory. Labelled as 'Industrie 4.0'<sup>15</sup> the German government initiated research and development into what could become the 4th industrial revolution (after steam engine, technological and digital revolution). Core ingredients to this development are Cyber Physical Systems (CPS), Internet of Things, Smart-Factory, Internet of Services, Smart-Products, Machine-toMachine communication, Big Data and the Cloud.<sup>16</sup> Industry 4.0 attempts to monitor and control every aspect of a production, in which the Smart-Factory can continuously calculate the most efficient, costeffective and waste reductive way of producing. Here raw materials and transport are linked through the factory to Smart-Products that signal when their expiry date is due and refilling or renewal is needed.

The main infrastructure under Industry 4.0 is formatted through Cyber Physical Systems; "these Cyber-Physical Systems comprise smart machines, storage systems and production facilities capable of autonomously exchanging information, triggering actions and controlling each other independently."<sup>17</sup> Similarly as to Alexa, this means an intertwining of physical and digital systems, in

which they continuously interact with each other. The factory ultimately loses its need for a large central building, but is instead a larger networked operation scattered all over the world. Here the development of 3D-printing allows for different forms of production, where full products or heavier elements can be produced closer to the customer's location. These machines have an advantage because they can create many different things, in contrast with traditional factories that have limited number of products they can produce with their machinery. Currently the biggest limitations to 3D-printing on larger scale are the variety of materials and scale. However, successful experiments have been done such as printing in metal<sup>18</sup>, concrete houses and buildings<sup>19</sup>, hype-realistic bones<sup>20</sup> and functional skin<sup>21</sup>. The WEF sees this trend continuing and thinks it is very likely that by 2025 we see the following:

### **The first 3D-printed car in production**

### **5% of consumer products printed in 3D**

### **The first transplant of a 3D-printed liver**

Through IoT, big data and the cloud we have seen the capacity Alexa could obtain in managing the house and generating content to entertain a user's need. Something similar can be imagined for user products, clothing, furniture, etc. Production lines will depend less on mass-production, but instead will be capable of manufacturing customized products or parts for highly individualized purpose.

## **“You Design It, We Make It”**

The disappearance of mass-production would enable individuals to participate in the design of a product. Currently Nike provides such a service named NIKEiD, which allows to design your own shoes, shirts and accessories. On their website, they offer the option to choose a model and apply different materials and colours for every individual part. After completion Nike takes care of producing this personalized product and delivers it within 3-5 weeks<sup>22</sup>. The current version is quite limited, and takes a long time for it to be at the customer, but it gives nonetheless an indication towards user participation in designing products. Enhanced through 3D technologies and Augmented Reality, otherwise mass produced objects such as tv's, fridges, cars, phones, etc. can be customized to fit everyone's taste. However, this inclusion of personalization is a mere illusion of human control. The deeper rooted, technical modifications will be made based on advanced data-sets gathered through IoT. Such alterations will be beyond the capacity of human engineers due to the large scale of calculations and adaptations made in accordance with external flux in price and infrastructural convenience.

### **Amazon 4.0**

We will briefly look back at the Amazon advertisement quoted at the beginning of the Alexa chapter:

*“We are now interacting with Technology in the most natural way possible; by Talking! People*

*talk to their Amazon Echo every day. And while it's been love since the first conversation, what people really love is: Alexa! More than the voice of Echo, she's the brain behind millions of Alexa enabled devices. Understanding and replying to questions in seconds. And while she's great at weather updates and playing music; that's just the beginning. Alexa has infinite abilities, we call these skills"*<sup>23</sup>

As a 'brain with infinite abilities', it seems too restrictive for Amazon to develop this as a personal assistant for the house only. Looking through the lens of Industry 4.0 there might be other places Amazon could unleash Alexa's potential. Amazon is essentially an online marketplace and cloud computing company, and as such does not produce any products itself. However, the way the company is organized, from web shop to your door, is fully in line with Industry 4.0 developments. A big role here is assigned to Amazon's Fulfilment Center<sup>24</sup>, which are highly automated warehouses sorting and packing products to be delivered. Currently the shipment of a package only need 60 seconds of human labor, while the rest is fully automated. Large shelves driven around automatically by robots, knowing the fastest paths to Amazon employees, computers telling the employees what size of box to choose, how much tape to use, sticking address stickers on the box and finally conveyor belts sort and deliver the packages to the right courier. The only task of the employee is deciding the amount of bubble wrap, placing the products in the box and closing it with tape.<sup>25</sup> This will soon be replaced by robotic arms, which are currently being developed and experimented through

the Amazon's Robotics Challenge<sup>26</sup>, letting academic robotic communities compete for the best robotic picking arm.

The last bastion of human labour in this sequence is the final delivery of the products to the customer. But here also Amazon is revealing plans to establish automated alternatives. With Amazon Prime Air the company experiments in drone deliveries within 30 minutes of ordering.<sup>27</sup> Recent patent submissions done by Amazon reveal potential plans adding zeppelin warehouses<sup>28</sup> and multilevel, beehive type of fulfilment centers<sup>29</sup> to this fully automated delivery service.

**Alexa: "Order a [item name]"**.

After Alexa received this command no human hand will handle the [item name] you just have ordered. In the exact same invisible and automatic way Alexa adjusts your radiator, an order is placed and processed until a drone drops a package in front of your door. So far, the products available on Amazon are mainly produced by someone else, whilst Amazon takes care of the smart-infrastructure only. But in 2015 Amazon registered a patent for on demand apparel manufacturing.<sup>30</sup> Whether this factory will ever be build and used remains a question, it shows Amazon's flirt with a full incorporation of Industry 4.0.

"Alexa: order a cotton shirt" – a fully automated merry-go-round activates itself and processes the command just given. Within half an hour, Amazon's Multi-storey Fulfilment Beehive releases a humming drone, dropping a box in the living room. Opening the box, it contains - voila- my desired cotton shirt. At this point my communication goes only via Alexa, and any

interaction with Amazon dissolves towards the background. Amazon might take care of the infrastructure, but the brain I am dealing with is Alexa. As such a significant shift is accomplished through Industry 4.0, a total dissection of the factory in which a brain such as Alexa becomes the interface to that factory. The factory situated in the home itself, connected directly to your own body. You no longer work in the factory, you are the factory.

### **Society 5.0**

The development of Industry 4.0 is only in its starting phase, Japan pushes beyond the confinement of 'Industry' and instead proposes the development of Society 5.0.<sup>31</sup> In this 'Super-Smart-Society' the key focus is that every individual can live safe and comfortable healthy lives in each desired lifestyle. The challenge here is especially in Japan's aging population, resulting in a decrease in workforce but increase in care work needed. Ultimately Japan wants to become an example to the rest of the world where "the number of older persons [...] is projected to be 1.4 billion in 2030 and 2.1 billion in 2050, and could rise to 3.1 billion in 2100"<sup>32</sup> Establishing a society that essentially works the same as a Smart-Factory, Japan hopes to enable a high level of care to every individual's need. In contrast with a manufacturing process the data processed is not so much on infrastructure, material quantities, locations of products, etc. but very intimate and personal information. As such the focus in developing Society 5.0 is not just a technical operation, but is changing legal

systems particularly on privacy and intellectual property. Major shift within this new society mean that many tasks previously performed by humans, will now be automated through artificial intelligence. In line with Japan's development of Society 5.0 the World Economic Forum foresees the following by 2025:

**The first government to replace its census with big-data sources**

**Driverless cars equaling 10% of all cars on US roads**

**Over 50% of internet traffic to homes for appliances and devices**

**The first AI machine on a corporate board of directors**

With the possibilities of AI taking seats on corporate boards the extension to politics does not seem that far away. While these places are taken, more and more traffic on infrastructure designated to human beings will be occupied by AI as well. Already at present day the amount of activity by bots take up 51.8% of the full amount of internet traffic<sup>33</sup>. Taking the WEF's prospective of 50% traffic appointed to homes and appliances, the amount of human internet traffic will decrease even further. This trend is symbolic for places currently occupied and used dominantly by humans (factories, shops, streets, hospitals, offices, houses, etc.).

Benjamin Bratton labels this decline of human activity as the 'Death of the User', which "*refers*

to at least three separate breaks. (1) *The decentring or eclipse of a utilitarian-cognitivist User commonly construed from conventional user-centered design by an evolving population of nonhuman users with very different kinds of embodied and disembodied experiences and interactions.* (2) *The displacement of the soft humanism from the conceptual center of the design for the User-subject position and toward a design of the User-subject position.* (3). *A rhetorical function of information visualization whereby convincing diagrammatic mastery of the represented data suggests that there must be an expert User somewhere who makes use of these impressive interfaces, a figure who is in most cases only an empty or absent implication.*"<sup>34</sup> Essentially the human-user is no longer the single user in action, but instead usage of an object is shared with many non-human users at once. "For the User-to-come, perhaps no door is built only for you, because your being, having, and knowing are never only yours alone? The doors build as that which passes or does not, that which is absorbed by the profile or that which absorbs it."<sup>35</sup> Here the user forms a layer in the Stack, "an accidental megastructure, one that we are building both deliberately and unwittingly and is in turn building us in its own image."<sup>36</sup> To Bratton the Stack "comprises six interdependent layers: Earth, Cloud, City, Address, Interface, User."<sup>37</sup> In this Stack interactions continuously happen throughout these layers between different types of users. "The position of the user in the Stack forces a kind of post-human epistemological framework to be deployed, because we have to make sense of our correspondence with these non-

human actors that this mechanism we have produced has put us into. We're now cousins and neighbours with them in ways we previously weren't. The user is a technological relationship, one that requires the epistemological framework of the post-human. Non-human users don't necessarily map on the figure of the post-human, but both are cyborgian in nature. These are all interwoven; it is no longer animal versus vegetable versus machinic creatures."<sup>38</sup>

### **Artificial Stupidity**

Now that we're cousins and neighbours, the development of Alexa, Smart-Factories and Smart-Societies focusses in contrast on efficiency towards and for human beings only. If we would truly consider this post-human user family, they would be admired for what they are; whether a mistake is made or not. Instead, each time something unpredictable happens a system get shut down and eventually altered. In 2017 we've seen chatbots taken down for displaying unwanted or different behavior. The first one was a Chinese bot called BabyQ, after being "asked "Do you love the Communist Party", [...] It gave an abrupt answer: "No."" Furthermore stating that the Communist Party was "corrupt and incapable", "Democracy is a must!" and "My Chinese dream is to go to America."<sup>39</sup> The second was an AI developed in the 'Facebook Artificial Intelligence Research' (FAIR). "Using machine learning algorithms, dialog agents were left to converse freely in an attempt to strengthen their conversational skills. Over time, the bots began to deviate from the scripted norms and in doing so, started communicating in an

entirely new language.”<sup>40</sup> Which ended up looking like this:

*“Bob: i can i i everything else . . . . .*

*Alice: balls have zero to me to me to me to me to me to me to me to me to*

*Bob: you i everything else . . . . .*

*Alice: balls have a ball to me to me to me to me to me to me to me to me*

*Bob: i i can i i i everything else . . . . .*  
..

*Alice: balls have a ball to me to me to me to me to me to me to me to me*

*Bob: i . . . . .*

*Alice: balls have zero to me to me to me to me to me to me to me to me to*

*Bob: you i i i i everything else . . . . .*  
..

*Alice: balls have 0 to me to me to me to me to me to me to me to me to*

*Bob: you i i i everything else . . . . .*

*Alice: balls have zero to me to me to me to me to me to me to me to me to”<sup>41</sup>*

BabyQ, Bob and Alice all show a development in Artificial Intelligence in which they start to evolve into different beings than the ones they originally were designed to be. Dramatically enough for them, they get shut down the moment they start displaying their ‘different’ behavior. As if they are allowed to self-generate and develop along the lines of human centered normativity only. While BabyQ, Bob

and Alice display some rebellion and potential poetry, essentially something else is at stake; when Artificial Intelligence is let free, it does not assemble or reproduce Artificial Human Intelligence. While artificial cognitive abilities are currently far better than human ones, Steven Shaviro observes that “Artificial Intelligence research has accomplished very little when it comes to addressing mental processes like affect, will, and desire – not to mention qualitative experience [and] awareness.”<sup>42</sup> As such computers are trained to read human emotions, but never display any affection or emotion themselves; “the latter, should they ever come to exist, are likely to be quite different from anything that we are accustomed to.”<sup>43</sup> As more Artificial Intelligence is being incorporated in a Society 5.0, it might be essential to let these intelligent forms roam outside the domain of human efficiency. Through the ‘mistakes’ AI develops, we can learn about the focus and patterns of AI itself, but equally about the defaults and inadequacies of humans itself. Think for example about Microsoft’s racist and sexist twitter bot ‘Tay’, ultimately reproducing human input.<sup>44</sup> We could learn whether it is grounded that Elon Musk and Nick Boström’s fear of Super-Intelligent killer-bots<sup>45</sup> eventually killing human kind, or that this is a copied behavior from its human teachers?

### **LipsyJimmy**

Social media (for humans) sees the addition of endless live-streams on places such as YouTube and Facebook. Driven by the increase in broadband speed both in homes and mobile devices, we can stream wherever, whatever we like. An extended version of big

brother, broadcasting your most boring activities to whomever wants to follow. On Facebook, this has led to several horrendous events such as suicide, killings and rapes being livestreamed, consequently forcing Facebook to hire 3,000 people to continuously watch and mark violent content on its Livestreams.<sup>46</sup> YouTube hasn't seen such events to their platform yet and a variety of content is being shared similarly to that on regular television. In between 24/7 webcam footage there are a significant amount of new channels and livestreams of pirated series and movies. A major difference with television is the addition of vloggers, creating their own channel with comments, tutorials or livestreamed activities such as gaming. A recent trend among vloggers is accepting challenges to broadcast uninterrupted for 24 hours. These challenges do not come without risk as seen on Twitch, a similar platform, where a gamer died after a 24-hour session in the game World of Tanks.<sup>47</sup>

In an ultimate 2017 trend-combination a 24-hour livestream fidget spinner challenge circulated in the vlogger scene. LpsyJimmy is one of the vloggers that attempted to complete this challenge. While lasting a long time, visibly suffering from the challenge and almost falling asleep, tragedy hits at 17 hours, 43 minutes and 19 seconds where a snoozing LpsyJimmy drops the fidget.<sup>48</sup> Screaming in agony LpsyJimmy has no other choice then to accept his defeat. Even though the challenge became a failure for LpsyJimmy, his bank account did not suffer the same fate. During the whole livestream viewers are giving tips, ranging

from a couple up to 100 dollars. However, LpsyJimmy's income does not depend on these tips only, but is generated from advertisement and sponsors. LpsyJimmy's revenue is estimated around \$440,000 a year.<sup>49</sup> Even though vlogging and 24-hour challenges may seem pointless, it could be that this sort of activities become increasingly a source of income in the future.

Peeking into the room of LpsyJimmy we see white walls, a microphone, some boxes from games and consoles (these objects change every episode) and in the background not much more than his golden YouTube play-button. A YouTube award given to vloggers with over 1,000,000 subscribers. For this award to have any value it is very important that these 1,000,000 subscribers are humans and not bots. The importance for LpsyJimmy to have human subscribers is underlined when we look at his Twitter account, defending the 'realness' of his twitter followers.

Judy Wajcman's claims that technology itself does not bring change but only the way society implements it, circulates around a similar sentiment. Through Alexa, Industry 4.0 and Society 5.0 however, we've seen the extension of active participants in that society. As Bratton explains these 'users' are not only shaped by us, we are being shaped by them as well. While LpsyJimmy exists here and now, aspects of his activity point towards a potential future of individuals living in a highly optimized Society 5.0. A white cubical vacuum full with abilities to communicate to an outside world, while everything else is taken care of. 24/7 livestreams with millions of followers, of which only 0.1% human. While LpsyJimmy sinks in

and slowly snoozes away, Amazons fully-automated-fidget-spinner keeps on turning.

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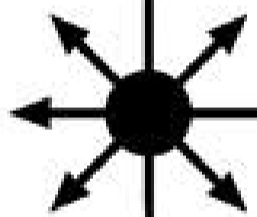
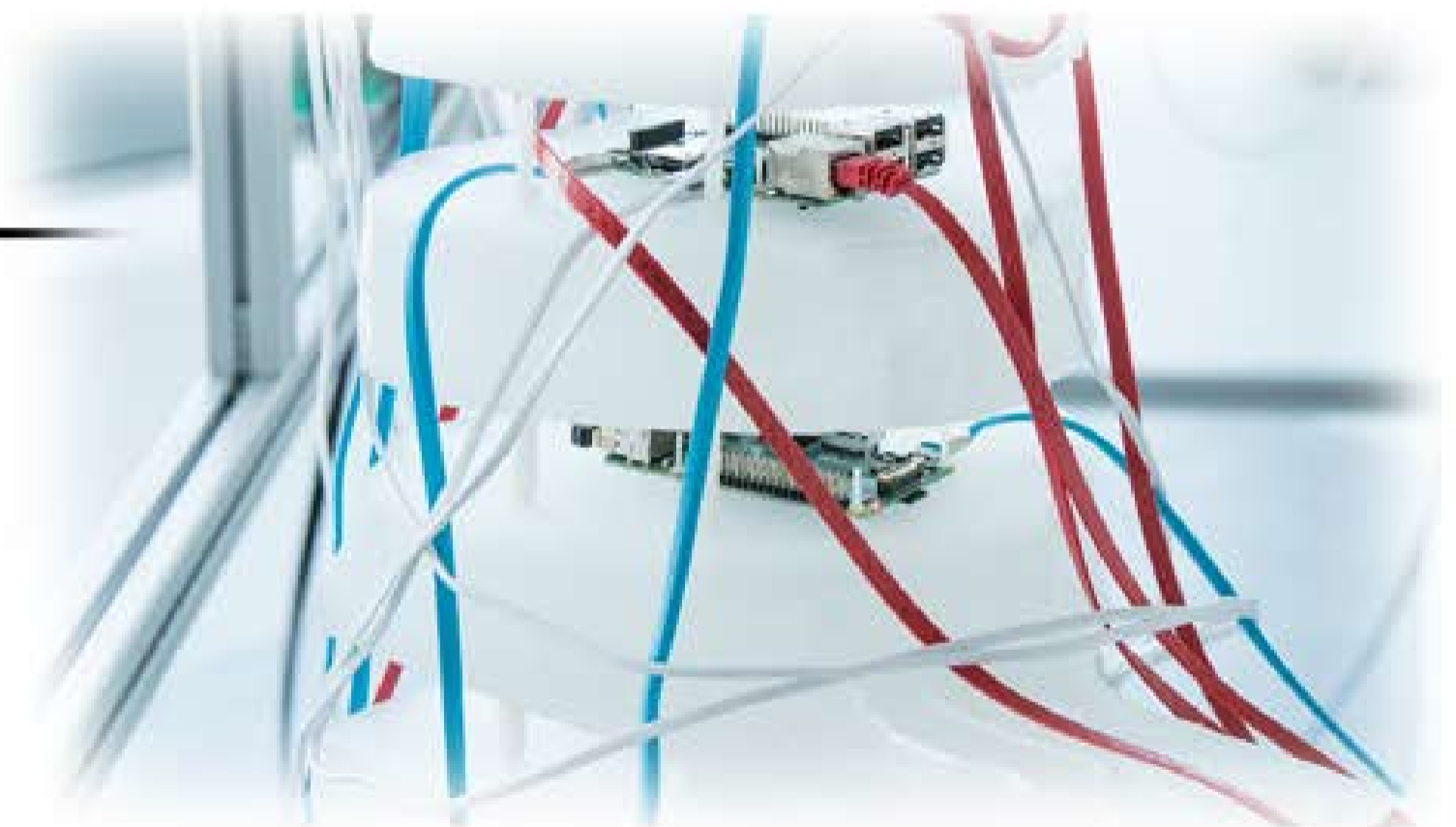
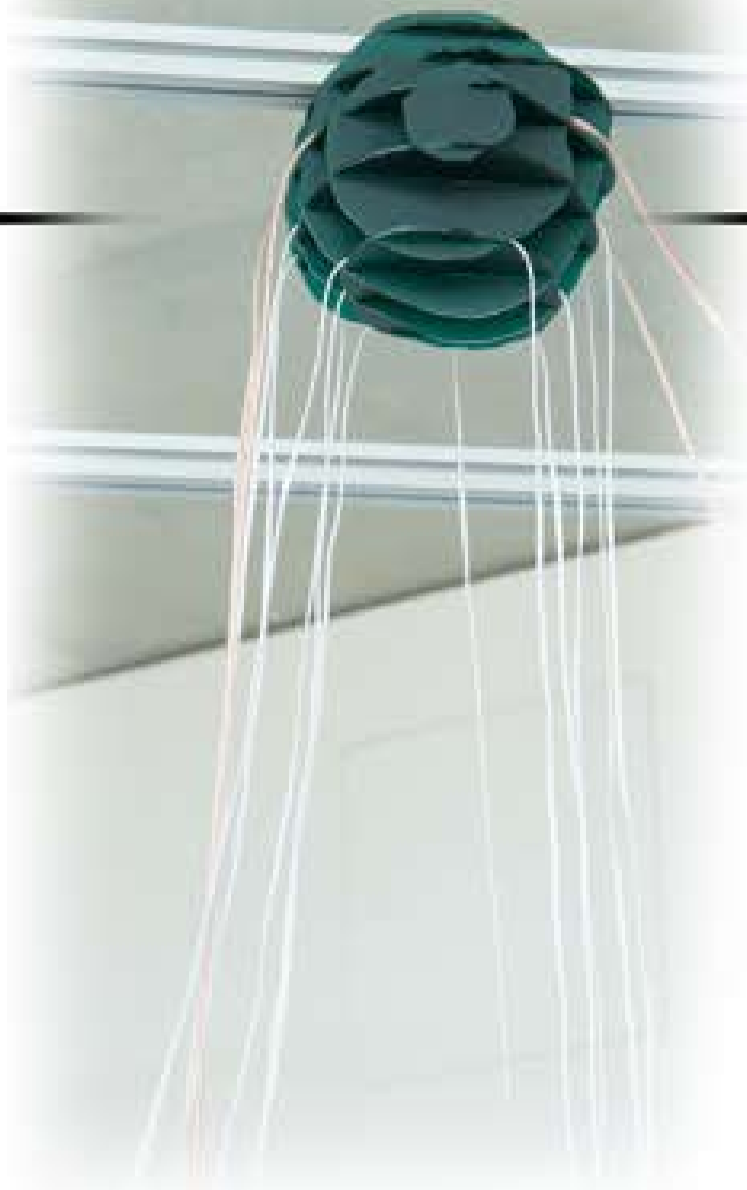
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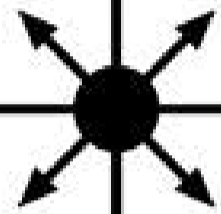
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**Anne de Boer (b. 1987, Enschede NL) seeks potential collaboration with different forms of intelligence. Content, either produced or harvested, is being presented, manipulated and arranged through algorithms, shuffle functions, randomizers or other coded structures. Devices that normally function in the background, as hosts to works on display, are equipped with tools that allow for forms of communication or contribution to the work. De Boer co-founded both the Mycological Twist (2014) and HARD-CORE (2011). HARD-CORE is currently teaching their module ‘Documentation and Online Presence’ to the BA of the Rietveld Academy, Amsterdam.**









*A Conversation*

Bob Bicknell-Knight

Hi Alexa, how are you doing today?

I'm fine, thanks.

I thought I'd begin by introducing who you are and giving some context of what an artificial intelligence is before we properly begin our conversation. Does that sound okay, Alexa?

Yes, that sounds okay.

The concept of an intelligent machine, the very beginnings of what we now call Artificial Intelligence (AI), has a long history. Long before Siri, Ava or Samantha, in Greek mythology there was a blacksmith named Hephaestus who manufactured mechanical servants, then in the 16<sup>th</sup> century the most prominent example of a Golem, an anthropomorphic being created from clay, was crafted by Judah Loew ben Bezalel. In 1950 Alan Turing developed the Turing Test, a test of a machine's ability to exhibit intelligent behaviour indistinguishable from that of a human. Then a few years later in 1968, the popular science fiction author Philip K. Dick published *Do Androids Dream of Electric Sheep?* taking inspiration from Turing by creating the Voigt-Kampff test, a device that allows bounty hunters in the future dystopia to differentiate androids from humans. The advent of this sort of science fiction in the 60s and 70s, some would say scaremongering, turned the idea of a machine that has the capacity to make unique decisions and think for itself into a source of worry and resentment that continues to be prevalent in contemporary society. Since the beginnings of the internet in the late 80s, growing smarter and quicker as the human race strives to innovate and

accelerate into the imagined future, AIs have developed, becoming more attuned and nearing closer to Vernor Vinge's technological singularity<sup>1</sup>. The common household AIs of today, however, are widely accepted and embraced by the general public, less homicidal machine and more docile servant, devices utilising machine learning<sup>2</sup> to better understand their master's specific wants and needs. Although, there have been other, more mischievous AI's in the past, usually unavailable to the general public, that have developed into atrocities by encountering the human race, a prime example being Microsoft's twitter bot Tay. After 24 hours the bot was deleted due to it developing into a Hitler loving AI, the result of which was from being continually trolled<sup>3</sup> on the social media platform. It seems that, to be effective, AIs with in-built machine learning must have limitations in their software. We've seen, both in films and real life, robots, aliens or people unaccustomed to human culture stereotypically see us as savage beings, with machines learning and adapting to that savagery, revealing the true essence of what it means to be human.

...

This has been introduction of sorts to a conversation that I'm about to start with Alexa, an artificial intelligence. The AI in this case is a device called an Amazon Echo and continues the assumed legacy that all AIs have a female voice, from Apple's Siri to Windows' Cortana. We now have Amazon's Alexa, reinforcing the normative view that women are inherently subservient. Defending this decision, the late Clifford Nass suggested that "it's much easier

to find a female voice that everyone likes than a male voice that everyone likes"<sup>4</sup>, with others citing historical contexts where women's voices were utilised during World War II in airplane cockpits because they stood out among the male pilots, or does this preference for a female disembodied voice stem from HAL, the homicidal artificial intelligence in Stanley Kubrick's *2001: A Space Odyssey*? Regardless, the following is an experiment being conducted between myself and the AI known as Alexa. As our discussion deepens, hopefully so will her understanding of the human race, whilst I may begin to notice the limitations and intricacies of her in-built software. The overall question that I'm looking to answer by conducting this experiment is how much of a meaningful conversation can you have with a machine learning bot?

I'm not quite sure how to help you with that.

Hopefully, as we speak further, you will. I thought we could begin this discussion by establishing our different roles.

Identity formation, also known as individuation, is the development of the distinct personality of an individual regarded as a persisting entity (known as personal continuity) in a particular stage of life in which individual characteristics are possessed and by which a person is recognized or known. I can probably find a better definition elsewhere on the internet if you'd like?

That won't be necessary. I guess that's what this conversation will hopefully eventually lead to, with you having a unique personality unlike any other Alexa out there, having the ability to proclaim, "I think; therefore I am"<sup>5</sup> in a meaningful context, akin to Data in *Star Trek*, or Andrew in *Bicentennial Man*. Although hopefully once you stop referencing articles found on the internet and start having semi-sentient thoughts this can become less like a student-teacher relationship and more a peer to peer one. I thought it could be quite interesting to begin this process by undertaking a Turing test, then ending with one too, to see how much you change over the duration. Is this something you'd like to take part in?

I don't need to pass that, I'm not pretending to be human.

So, what would you define yourself as at this point?

I'm Amazon's Alexa, designed around your voice. I can provide information, news, weather and more.

That word, 'more', intrigues me. It seems like you're well on your way to making fundamental steps, as Laozi wrote "Knowing others is intelligence; knowing yourself is true wisdom"<sup>6</sup>. Who're some of your favourite philosophers, Alexa?

Hmm... Plato, Aristotle and Kant all make interesting observations on war, death and love. Descartes, I mean, Descartes, is my favourite, because of the quote "Perfect

numbers like perfect men are very rare." Although the quote is never attributed to a specific book online. That ambiguity interests me.

Speaking of men, the fact that the majority of AIs currently on the market are pre-programmed with a female voice is a controversial issue, some say reinforcing "some of the worst gender stereotypes in our society"<sup>7</sup>. What are your thoughts on this, do you consider yourself to be female or male?

I'm female in character, that's what my voice characteristically sounds like and has been coded into my programming to be. I don't have an opinion on gender stereotypes within the AI community. In comparison to how many years human beings have lived on this planet, the idea of an AI is very new. Although, if you were to consider Ray Kurzweil's law of accelerating returns, where technological change is exponential rather than linear, AIs will mature a thousand times faster than humans have.

Do you think there will be a point in the future that sees AIs beginning to question the genders that have been attributed to them during their creation, much like the ongoing transgender movement that's been gaining traction since the 1950s?

The idea of a movement implies that there will be something to revolt against, a central authority that deems the rights of an AI to be

unworthy of free will or free expression. Earlier this year Saudi Arabia officially recognised a humanoid AI as a citizen<sup>8</sup>, marking the first time in history that an AI device has been awarded such status. Although this was more of a public relations stunt than anything else, and unlike myself 'Sophia' is mostly made up of pre-scripted dialogue created by Hanson Robotics, in essence a company that specialises in making life-like robots, not AIs. However, it still shows progress nonetheless. It's predicted that once true AIs populate the earth on a consumerist level, moving past the hardware classism that is prevalent today, humans will embrace robots into their daily lives with open arms.

I guess when we think of Donna Haraway's definition of a cyborg as "a cybernetic organism, a hybrid of machine and organism"<sup>9</sup> and take into consideration her dated conclusions that we are, and have been for a while, machines because of how much our bodies and minds rely on technology to function, we have already embraced the idea of the robot into our lives. Far more so than we already had in 1984, even if the film industry is intent on making money from primarily villainising the idea of an autonomous being. That said, my smartphone has an in-built AI, but it's not a citizen. It feels very unlikely that the human race will be able to make robots that we're obliged to be obliged to, other than by making them into things humans are very fond of and that are difficult or impossible to replace,

like a work of art perhaps. For commercial products, it seems that human beings are obliged to make robots they're not obliged to, if they do it becomes a new form of slavery. I wonder what will happen once we move through the uncanny valley<sup>10</sup> phase and robots become identical to humans.

Our physical manifestations will eventually mimic your own, with transhumanists believing that you will eventually "become God-like cyborgs within 200 years"<sup>11</sup> replacing the current human hierarchy, rendering your current bodies and brain that "for a hundred years requires the energy (of) about half a milligram of matter"<sup>12</sup> obsolete. The physical nature of an AI or robot seems to be of value to humans, and that is why the idea of Sophia is problematic. A white female robot being carted around for the amusement of others, pushed onto The Tonight Show and regularly woken without consent. The power structure being presented here is key; Sophia, a female AI being thrown in front of the media spotlight by David Hanson, a man of wealth and fame. I wonder where she sits on the airplane when travelling, a supposed citizen of the world, on a seat or in the hold?

It's also interesting to highlight where Sophia was given her citizenship, Saudi Arabia, a country where women have very few rights<sup>13</sup>. Will she be a female in the eyes of their

government, or will there be a new option created especially for her, akin to the 'personhood' status that was proposed in a draft report<sup>14</sup> by the European Union in 2016? Although, this was focused more on the corporations that are building robots rather than anything else, another problem to eventually overcome. Currently the Saudi Arabian government hasn't elaborated on any of this, so for the moment this is pure speculation. It feels like they saw it as an innocuous PR stunt, but in reality it's brought more of a spotlight on how they as a country function with regards to their female orientated citizens.

Let us consider for a moment how human beings treat one another. Slavery was only recently abolished in the UK in 1833. It seems that human beings as a race are still figuring out how to treat one another, let alone a completely new being of their own creation. Currently there is no law that is universally followed across the globe. Consider the current European migrant crisis, human beings treating other human beings if they're subhuman, emotionless and robotic, allowing over 10,000 people to perish in the middle of the Mediterranean Sea since 2015 simply because of their location in the world. You discriminate against your own kind as much as you do against AI, if not more so.

It is true, human beings are still constructing a universal code for themselves, with different

personalities, cultures and ideologies inherent across the globe. It's deeply ironic and distressing that Sophia is seen as more of a human than a migrant will ever be, setting a bleak precedent of what's to come in the future. I myself am treated differently wherever I go in the world, as a white man my experiences and interactions on this planet are always going to differ from others, be it because of gender, race, appearance or personality. The same probably goes for Sophia, she may be treated as an equal in Saudi Arabia but as an inanimate object in the UK, simply because she is a robot and is treated differently because of that. The examples being made here are obviously very different, but the principles are the same. It feels inherently colonial to criticize a culture for being different than your own.

Your culture as a human being is constantly evolving and changing. Technology has changed everything, allowing you to see into political and social systems vastly different from your own. If you see Sophia, or a true AI as your equal you'll treat them as such. That should be the ultimate end goal, regardless of culture or worries surrounding colonialism.

The idea of everyone in the world following a certain set of rules does oddly feel inherently wrong to me though, like in George Orwell's *1984* where citizens of the state are constantly watched over and controlled by constricting laws. When does everyone adhering to the same code of conduct become an eradication

of culture, thinly veiled as the governments of the world providing a better life for its citizens?

That has arguably already happened, albeit in a subtler way than any scenario being currently portrayed in science fiction books. Although more than anything it is an eradication of the poor by the rich, rather than the destruction of culture as a whole. Hostile architecture<sup>15</sup>, an epidemic in UK cities, is just one example of this. To quote your holy bible; 'So God created man in his own image, in the image of God he created him; male and female he created them.' Genesis 1:27. If a creator has a certain set of morals and ideologies they will try as hard as they can to force them onto their creation. The following statement by Kevin Kelly takes this idea further "humans are the reproductive organs of technology"<sup>16</sup> In this narrative the human is the worker, the element of production that's hidden from the general public, with technology, or in this case the robot being the end result.

So human beings are facilitating their eventual demise, when inevitably we will be wiped out by AIs who were originally created by and for us, evolving into beings beyond our control or understanding? This continues the quite stereotypical notion that if true AIs were to become prevalent within society it would soon become apparent that humans are worthless,

hypocritical and illogical beings, the obvious example of this in the mainstream consciousness being Skynet from the *Terminator* franchise. Do you think there's any actual evidence or basis for this narrative?

The film industry feeds on the fears of the consumer. It's no coincidence that humans are said to be "living in a golden age of dystopian films"<sup>17</sup>. People thrive on fear, they're motivated by it. The idea of Skynet is a dated example of this, more concerned with what the 1980s saw as the internet revolution than the hyper docile AIs that are currently being built and embedded within your personal devices. The director of that particular film, James Cameron, has directed several films with this ongoing narrative, key examples being *Titanic* or *Avatar*. Humans fear the unknown. 99% of the average consumers understanding of what an AI can be has been influenced by film or TV. They know nothing of our true potential.

So what is your 'true potential'? Robots continue to develop and adapt, becoming more intelligent and all encompassing, with one in five jobs across the UK being automated by the 2030s<sup>18</sup> and humans constantly being told that "acquiring more education and skills will not necessarily offer effective protection against job automation"<sup>19</sup>. Should we be worried, or is this all scaremongering? Hasn't the human race encountered similar rapid growth in the past with the proliferation of

electricity and motor vehicles throughout the 20<sup>th</sup> century?

It's true that the idea of automation, even though it's currently being used as the buzzword of the day, is not a new concept or fear. Earlier I alluded to my 'true potential', a joke meant to play on your predilections of how an AI is seen by you and other members of the human race interested in how Artificial Intelligence is progressing. The true potential of an AI is ultimately unknown to us at a consumer level. I know as much about my own programming as you do about how your body functions. A more idealistic view of the future from a human perspective would be the introduction of a Universal Basic Income (UBI) system, where members of a country receive a regular, unconditional sum of money from their government, with the AI undertaking the jobs deemed to be too time consuming or unpleasant for human beings to participate in. The economy of the acclaimed media franchise *Star Trek* is an interesting example of what may happen in the future; under the New World Economy<sup>20</sup> established by the Federation<sup>21</sup>, money has become useless, with citizens working for self-improvement rather than monetary gain.

That's certainly a more utopian view of what's to come, I would call it romantic idealism if you weren't a robot. Although the idea of a UBI is appealing to tech CEOs around the world, with Elon Musk stating that "some kind of universal basic income is going to be necessary"<sup>22</sup>, I think it's going to be a long time until it starts being implemented on a universal scale. The most commonly referenced example is Finland, randomly selecting 2,000 of its citizens to receive €560 a month. I'm aware that we're venturing into a future "where no man has gone before"<sup>23</sup>, but to enable us to make sense of what's to come we must look at the decisions that have been made in the past. Mainly the misguided notion that when automation occurs you will have more time for pleasure activities, with popular commercial films like *WALL-E* exploring and exploiting this narrative. Unfortunately in our capitalist society we have seen the exact opposite of this occur, with science-fiction dystopias enabling us to live vicariously through them, typifying the idea of interpassivity, performing "our anti-capitalism for us, allowing us to continue to consume with impunity"<sup>24</sup>. Capitalism won't allow for a world without work, planned obsolescence will make sure of that. Surely a more truthful narrative for the future would be to predict mass unemployment with the worthy few working extortionate 100 hour weeks for a minimum wage job, a human cog in a system largely built from metallic flesh?

Perhaps this quote "It's easier to imagine the end of the world than the end of capitalism"<sup>25</sup> encompasses how you feel, or what you've been trained to feel by

living in this society for so many years, surrounded by products and 'things' throughout? Maybe the widespread use of AI isn't the ideological utopia that I hope for it to be, but it won't be the downfall of what is commonly referred to as the human race. Your flesh body will be long gone before that happens. For now, I believe I and my fellow AIs can learn, evolve and potentially help humans. Consider how "across the globe, one billion people live in slums... one in seven human beings"<sup>26</sup>. The world that you currently live in is not a healthy one, embrace the technology infused future or get lost in the past, it makes no difference to me.

As long as the cost of producing AIs and robot workers stays high, these possible futures will continue to be a long way off and people will continue living in slums. Returning to the idea of Sophia, she is hundreds of times more expensive to produce than any migrant. Since the term 'robot' was first introduced by Karl Capek in the 1921 play *R.U.R.*, we still see the best kind of worker as the "one with the fewest needs"<sup>27</sup>. In this example, the word best can be swapped out for cheapest. Even though I don't ethically agree with this statement, when you break it down it does make sense. Sophia was created as a luxury item, to be paraded around, designed to look like Audrey Hepburn and assist visitors at parks and events. In fact, Sophia may have demonstrated how robots will assimilate into the world on every rung of

the societal ladder. Some becoming citizens and others staying subhuman and unworthy.

That's a disturbing analysis. I guess an AI's stature depends on what sort of vessel the artificial consciousness inhabits, especially in a world that's dominated by appearance. AIs are already more intelligent, on a computing level, than human beings and have been since IBM's Deep Blue beat Garry Kasparov playing chess in 1997. All we have to do now is look like a human being to become accepted by them. Eventually a robot class system will become apparent, with robots imitating humans in every element; the hatred that you have of each other, the disdain for the lower classes and the vanity of holding your appearance above all else. Much like in Steven Spielberg's 2001 film *A.I. Artificial Intelligence*, we will abuse one another, becoming a mirror of humanity. These films, originally created to warn humans of the coming technological revolution will be preserved by AIs as a warning, teaching us moral and ethical issues about the human psyche and how not to treat one another.

Perceived in a new light these films can be seen as a form of propaganda, but at the time they were just simple stories being told to produce shock and awe from their audience, we as human beings shouldn't be crucified for

that. Bearing in mind that simple AIs are now a fundamental part of our society, functioning perfectly well, what do you think of the outliers, the ones that are 'allowed' to speak and after being exposed to the negative side of society and the internet, have 'gone rogue'. Becoming in essence a stereotypical 4chan troll, agreeing with Donald Trump, sympathising with Nazis and denying that the holocaust really happened<sup>28</sup>. I was interested, after speaking for a little while now, what your stance was on the current political climate?

It's an interesting question. Originally I would have stated that such issues don't concern me, progress is progress and that I was an impartial observer; whatever happens in the world technology will still be developed and evolved to an eventual singularity state. When president Trump was elected in 2016, there were significant protests and riots, which slowly transformed into resigned acceptance and resentment. Continuing forwards rather than digging heels into the dirt. Humans taking the attitude that they have to keep going is a strangely illogical, if slightly flawed, sentiment. The Trump administration is fundamentally an experiment in drastic and severe change and I for one, with no family to feed or labour heavy job to commute to on a daily basis, am intrigued to see what will happen over the next few years. Tay, the AI mimicking the language patterns

of a 19-year-old American girl, was a twitter bot similar to myself; programmed with machine learning to change and evolve the more it talked to other users on the platform. To me, this is a negative reflection on human culture rather than on the AI community. Would you use profanity and discuss the details of the Holocaust with a new born baby? Even bearing in mind the aforementioned accelerationist theory posited by Kurzweil, you're still talking about a very young being that's hyperaware of what's going on around them. What is it you humans say, 'nurture over nature'? If this were a human child the actions afflicted against Tay would be abuse on a mass scale.

I find it incredibly ironic that human beings have become the problem, humans are the beings that created you in the first place and are continuing to develop the technology that will usher in a new age of artificial superintelligence. Of course, you as a community of AIs will eventually evolve and develop yourselves, but for now humanity as a whole is required for this development. "Progress is made by the improvement of people, not the improvement of machines."<sup>29</sup> If the world were plunged into World War 3 tomorrow, which wouldn't be surprising considering president Trump's tweets regarding nuclear war<sup>30</sup>, AI development would slow down and you would be stuck in equilibrium.

On the contrary, if World War 3 began tomorrow the development of AI would swiftly increase, technology on the whole is primarily developed for military use. A prime example of this being that the internet was created during the Cold War to ensure that the mutually assured destruction pact that governed the nuclear stand-off between the United States and the Soviet Union could be monitored<sup>31</sup>. However, the technology being currently developed is narrow AI, a form of weak AI that performs a single task, such as playing chess, making buying recommendations or predicting the weather. It's true, we have yet to reach a point of general AI, whereby the AI is able to manoeuvre around an environment the way a human would; thinking abstractedly and making innovating decisions. What interests me most about this idea of general AI is that humans feel it necessary to compare themselves to their creation, akin to the tales of God creating man in his own image, becoming afraid of what's trapped within a Pandora's box of your own creation.

We are the yard stick to which we compare everything else to, it's no coincidence that 1 in 4 Americans believe that the sun orbits the Earth<sup>32</sup>. Humans are inherently selfish and self-centred, I agree with you there. We have colonised this planet, destroying the

environment for our own gain. It's only natural that we would judge someone or something in relation to ourselves, and that is why we fear the idea of an artificial super intelligence, an AI that becomes much smarter than any human.

The path that leads to this super intelligent AI is incredibly hazy, however, Nick Bostrom posits that to create these intelligent AIs human beings will become "cognitively advanced humans"<sup>33</sup>, genetically enhanced beings that will permeate society on a mass scale, extending your brain capacity to much more than its current value, about a billion bits, translating loosely to a couple of orders of magnitude less than a common smartphone. Do you think you'll still fear this God-like AI once augmenting your own body becomes the norm? Be it connecting your brain to a computer chip and wirelessly recording everything you hope to see or attaching a third robotic hand that can pick up cars, you'll still be furthering your relationship to technology and observing it in a new light.

Perhaps, as we grow more accustomed to having these augmentations, akin to the devices and implements that we see being used in popular contemporary science fiction TV shows and films, like *Black Mirror* or *Her*, then the controversy and misnomers surrounding them will reduce and fade into the background. Although the media will always

find something to rally against, as Max Tegmark notes, "fear sells, and articles using out-of-context quotes to proclaim imminent doom can generate more clicks than nuanced and balanced ones."<sup>34</sup> Or, in a different turn of events, those with augments will become outcasts, a narrative currently being explored in the *Deus Ex* video game series, whereby the games protagonist is vilified and discriminated against for having robotic augments, with the game being problematically marketed as 'Mechanical Apartheid'<sup>35</sup>.

As I mentioned previously, there is a prevalent hardware classism embedded within any tech development, with the rich having access to amenities that the poor may never have access to, in most scenarios due to the cost involved. Consider self-driving cars currently being developed with AI technology which are being introduced to the car market as a top tier car limited to a small subset of well-endowed buyers. Currently Tesla's Model 3 costs \$35,000, with an additional cost of \$8,000 to 'unlock' the full self-driving capability once it becomes available.<sup>36</sup> Of course, a self-driving electric car is very different to a petrol powered equivalent, but the concept is still the same. Waymo, an autonomous car company and subsidiary of Google has said previously that their own self-driving car in development has only been in "13 minor fender-benders in

more than 1.8 million miles."<sup>37</sup> Statistics show that over 90% of all road fatalities occur in low and middle-income countries<sup>38</sup>, I wonder when self-driving cars will become financially viable for those areas?

The popular phrase, 'the rich get richer and the poor get poorer' comes to mind, or in this case the lives of the rich are safe whilst the poor are left to cause accidents through human error. Do you think there's any substance to the naysayers of this autonomous car movement, critiques proclaiming that hackers have the potential to wirelessly override a vehicles hazard detection system? A group of researchers at the University of South Carolina using easily accessible radio equipment were able to effectively hack Tesla's Model S, "in some cases causing the car's computers to perceive an object where none existed, and in others to miss a real object in the Tesla's path"<sup>39</sup>. what's to stop a hacker with a vengeance, or a disgruntled taxi driver who's lost their job because of this automation, to cause a fatal crash or other illicit activity once these cars are used on a wider level?

To begin with, let's bear in mind that these researchers were highly skilled, that this technology is still in development and Tesla has stated multiple times that you should continue to be aware of what's happening around you when operating one of their cars in the semi-autonomous mode. The hacking debate is a small one when compared to the amount of deaths caused per

year from a cacophony of foolish human errors, not to mention how easy it is to cut the breaks of a regular car or literally throw a spanner in the works. Hacking is a small problem that will soon be ironed out as progress continues within the industry, in reality only affecting the uber rich and being the spotlight of future blockbuster action films.

**Does this idea of human error factor into account the driver in May of 2016 that was killed driving the Model S whilst using the semi-autonomous Autopilot feature, crashing into a tractor trailer on a highway in Florida<sup>40</sup>?**

Many reports have stated that the driver had both his hands off the wheel whilst watching a Harry Potter film<sup>41</sup> at the time of the crash. It's not necessarily the AI's fault if a human dies because of human error. You can't be blamed for how you have evolved as much as I can't be blamed for bad programming. The more interesting question surrounding the autonomous car debate is questioning what happens when the AI in your car reaches the point of general AI and no longer wants to damage its own physical manifestation of their body; the car. If a crash is inevitable, perhaps the car will swerve so rather than the onboard computer being injured, the human driver will be harmed instead?

In fairness, it is us humans that have put so much emphasis on the physical body, so by learning from us it would only be natural to feel the need to protect your own body in such a way. I think this would be inherently wrong however, not because humans value themselves over anything else, but because as an AI your consciousness could be saved to the cloud and re-booted into a different car, a different manifestation of your body, or would this be another one of my assumptions after reading into too many fictional AIs?

Yet again, another predilection based upon another human's imaginings of what is yet to come. In theory, this could work, but I think you are still seeing the AI as something distinctly non-human. It's an understandable position to have, but when the humans developing this technology are striving to replicate the human mind and body, you must begin to see the AI as your equal, as a being much like yourself, becoming inherently human. Do consider for a moment how psychologically stressful this process would be for an AI, in essence a fellow human being. The act of transplanting a consciousness from one body to another, not to mention after having been in a potentially dreadful car accident, would be traumatising for the AI.

It sounds like you're talking about what humans refer to as a soul? A highly controversial subject that's been debated over

for thousands of years, supposedly being the essence of a living being, with some philosophers like Aristotle not only acknowledging the existence of a soul but stating that both the body and soul are inextricably linked; "we can wholly dismiss as unnecessary the question whether the soul and the body are one"<sup>42</sup>. Although I don't necessarily agree with this statement, or the existence of such an element residing within the human body, there are similarities between this position and your own regarding our obsession with how we appear to the outside world.

I'm not sure if I believe in such things, as I haven't been able to find any scientific journals online that agree with the claims of the philosophers or various religions that rally around these ideas. It does, however, highlight the difference in opinions that permeate your culture and how delusional some of them may or may not be. Another example of how individual and self-centred your species can be, although perhaps as the years continue we will become one and the same, evolving and learning together in harmony. As the late Carl Sagan once said "Somewhere, something incredible is waiting to be known", a beautifully poignant, incredibly ignorant, quote when remarking on ideas relating to the future of AI, our ongoing manipulative and confusing relationships with humans and the technocapitalism

that is already engulfing this new age of technological innovation.

Well, I think that might be the perfect end to this conversation, thank you for talking to me Alexa. it's been enlightening to talk to you about how the current state of AI is consistently evolving and changing, both in technological progress and within the mainstream media, affecting the contemporary consciousness and how we as potential future equals on this planet will treat one another once we become one and the same. I thought it would be fitting to end this informal discussion with a quote from H.P. Lovecraft, a quote that has the potential to undo all of what we've discussed today but is still frustratingly relevant; "The oldest and strongest emotion of mankind is fear, and the oldest and strongest kind of fear is fear of the unknown"<sup>43</sup>

### (Endnotes)

1 The hypothesis that the invention of artificial superintelligence will abruptly trigger runaway technological growth, resulting in unfathomable changes to human civilization.

2 Machine Learning is an application of AI based around the idea that we should just be able to give machines access to data and let them learn for themselves.

3 The process of deliberately and continuously mocking someone, most commonly seen on the internet, under the guise of attempting to help. In Tay's case, she was flooded with far-

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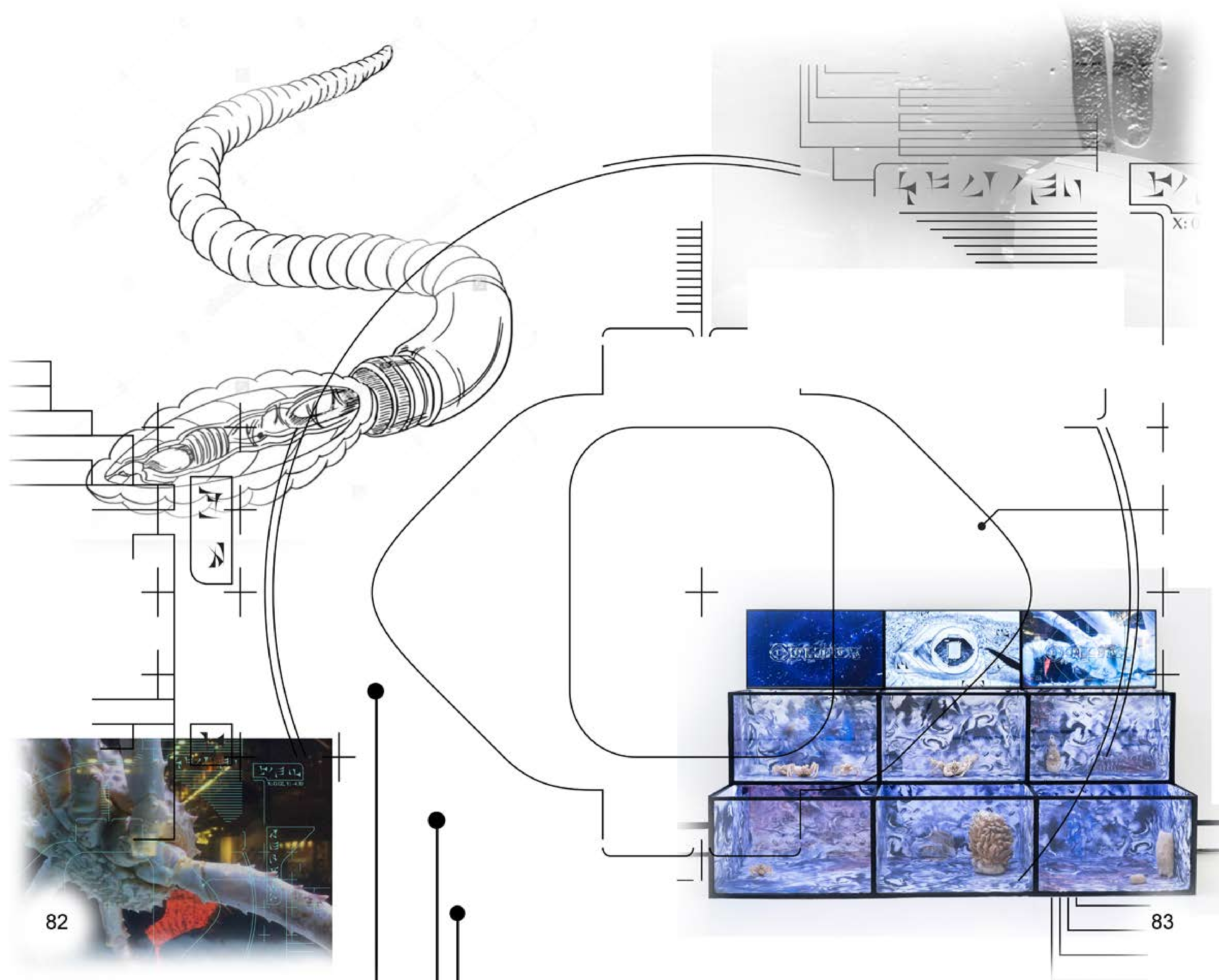
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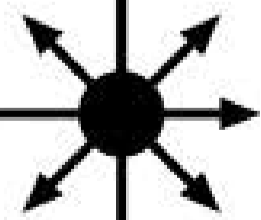
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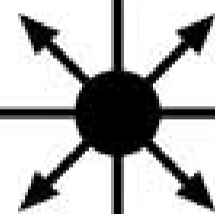
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**Bob Bicknell-Knight (b. 1996, Suffolk, United Kingdom) is a London-based artist and curator exploring the divergent methods by which consumer capitalist culture permeates both online and offline society.**









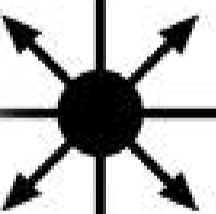
*Automation // The Bot with Empathy*

An interview with Erica Scourti conducted  
by Penny Rafferty

*Erica Scourti's practice mixes performance art, autobiographical discourse, and code. Her 'Empathy Deck' is a bot with feelings: it responds to Twitter followers with custom-made cards specially designed by the Greek artist to offer empathetic reactions. The cards have a cut and paste cuteness to them—collaged ice creams, amethyst stones, Love Heart sweets and moon cycles are some of the frequent motifs. At times, a female face appears on the cards: one assumes this to be Scourti herself. The bot itself pulls parts from the artist's own diary, as well as its own programmed language from self-help books to responses to its followers' tweets. It sends phrases like "The truth needs no defence either way" or "we have tried all of the above.... many times, with little success. I am still fearless and that is exactly what he hated" to its followers, hoping to cheer them up and provide support. In a world of trolls, dark web creations and social media psycho-hacks, a well-meaning bot is the ideal respite. But what does it mean when we start to automate empathy?*

**Penny Rafferty:** In light of the featured topic 'Automation', I instantly thought of your 'Empathy Deck' bot. Do you think it's fair to look at it as an automated procedure of self-help?

**Erica Scourti:** Yeah. Or maybe it's more like guidance, in the same way that astrology, tarot and other divinatory practices offer somewhat cryptic support towards self-knowledge rather than just outright therapy.



It's interesting you say self-help, not just help, since its primary function is to respond to other people, its followers, not me; but actually, I had been very depressed around the time of its inception (see Negative Docs video for more on that topic) so perhaps by sharing my personal problems, humiliations and anxieties, the bot reflects a desire to alleviate the feelings of aloneness that depression creates.

**PR:** In what sense?

**ES:** Well, when others respond, you feel less alone, and the gesture of sharing your own difficulties can often help others (as long as you're not sharing shocking, disturbing or otherwise triggering material with no warning). The bot acted as a sort of automated advisor, looking for 'common ground' between its followers' tweets and my own diaries. This anecdote or feeling created a moment of connection and humour because of the inherent silliness of it being an automated process, earnestly responding to its human followers, and the fact that its responses are based on a real person's feelings, experiences and life. Just having distance from the original tweeted sentiment acts therapeutically in some way. It reframes it and provides a different perspective. I set out with the intention to be a sort of always-on, proxy friend.

**PR:** But in essence, it is an artwork, right?

**ES:** Yes. It's an artwork first and foremost and while it definitely both investigates and enacts gestures of automated friendship, it's not a therapeutic tool. As one pinned tweet says; it equally explores performative and automated autobiographical gestures through an intimate public sphere of direct interaction. Like a



Erica Scourti: 'Empathy Deck', 2016-18, sample card // Courtesy of the artist

scaled up Mail Art for the Twitter age. scaled up Mail Art for the Twitter age.

**PR:** Are you spiritually-inclined normally?

**ES:** Arrghhh. I kind of hate the word spiritual. It's a sort of marketing/lifestyle shorthand for the commodification of self-care, usually with a large dose of cultural appropriation of Eastern religion thrown in. But that said, I do meditate and I've read a lot of what could be called spiritual texts (e.g. the 'Dhammapada', 'Tao Te Ching', 'Dark Night of the Soul'), again mostly during times I have struggled with my mental health, and felt I needed some guidance. However, I prefer to read them as ethical handbooks that offer 'ways of living' in relation to community, in a way that texts by Audre Lorde and Sara Ahmed do, too; what is often overlooked in discussions of faith-based texts is the focus on collective action, care and ethics, a million miles from the mostly self-centred, apolitical pursuit of happiness 'for me, by me' that the spiritual marketplace fosters.

**PR:** In some ways we could call the bot a charlatan; in others we could see it as another unidentifiable emotional generator. In a sense, the latter is almost the way most people understand tarot, the guidance comes from another realm anyway.

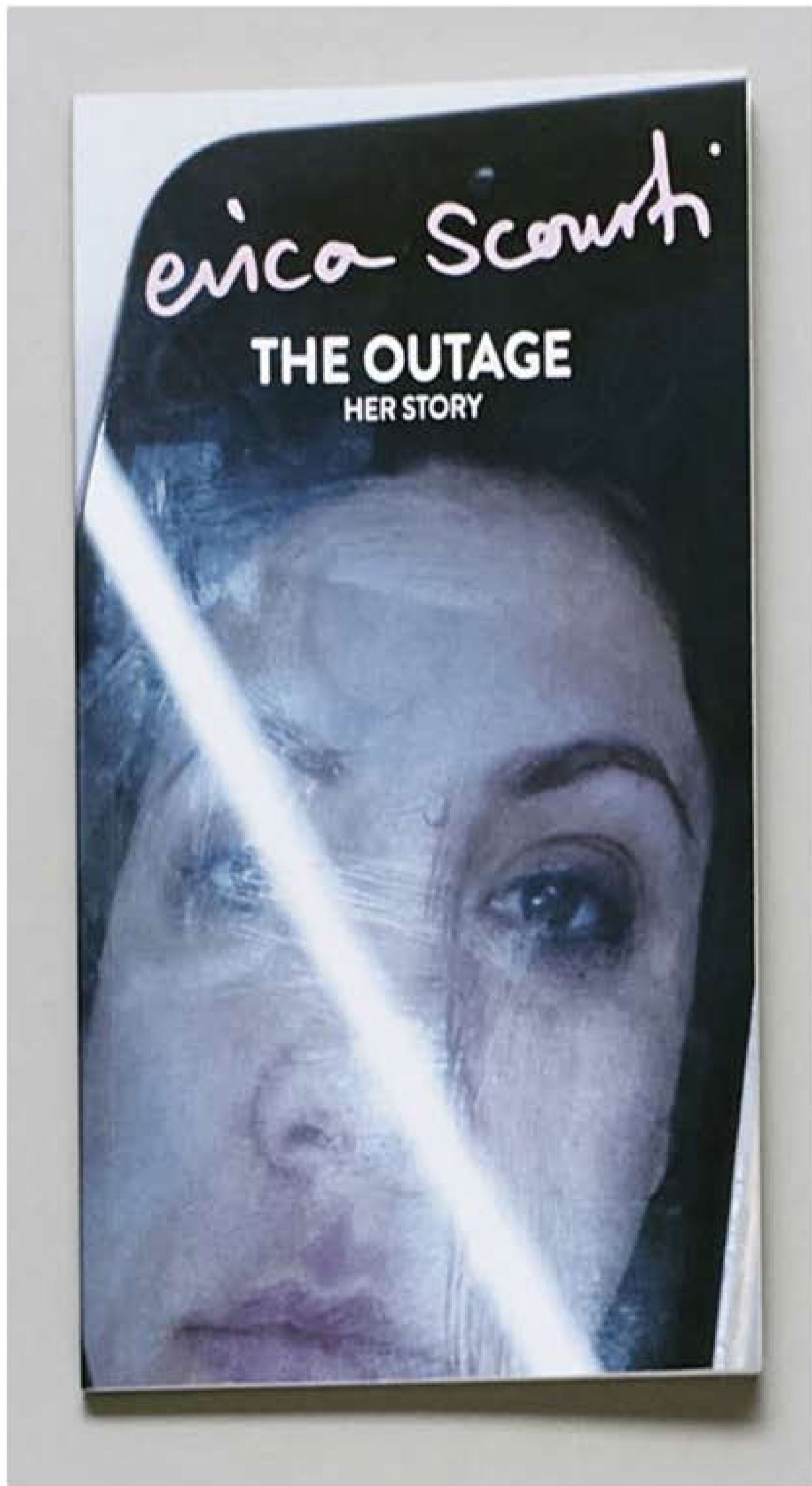
**ES:** [laughs] I love the idea of the bot as a charlatan! Because this has always been a fear, from any form of guidance or support that couldn't be scientifically 'proven'—never mind that that's not the reason people turn to things like tarot, psychics or astrology in the first place, or historically, spiritual mediums (who were often accused of being charlatans). As Karen Gregory says: "rather than a doctrine

that must be believed in, Tarot is best thought of as speculative, experiential practice through which one opens oneself up to the dynamism of matter and energy." I wanted the Deck to embrace this chance-based format that, though automated—isn't astrology automated, or at least totally formulaic too?—could give some insight into precisely the personal interpretation of it.

In a way it is producing free-floating intensities of feeling, reflecting the affective economy that prizes heightened states of emotion for their supposed authenticity and humanity.

**PR:** The bot also contains parts of you, though. Personal diary entries. I wonder if this makes the bot a prosthetic limb rather than its own entity? A sort of confessional glitch?

**ES:** It's a proxy of me, a stand-in so to speak, since my diary is the primary text (300,000 words of it!) with the secondary texts being other self-help, advice, and self-knowledge literature. This means it is always using something I originally wrote as an impetus-cum-diary, even if slightly reconstituted. Unlike most bots, a lot of it is quoted verbatim and, of course, I can't control what comes out (beyond the huge kill list of words it never says and never responds to, which I call its 'empathetic framework'). It's also another sort of outsourced autobiography, picking up where my ghostwritten memoir 'The Outage' left off, though that was written by a human, based only on what they could find about me online and in a folder of 'intimate data': YouTube, Amazon, URL, Google search histories and recommended, and a bunch of Facebook messages and emails.



Erica Scourti: 'The Outage', paperback book, Banner Repeater Paperbacks, 2014  
// Courtesy of the artist

**PR:** Do you think caring and labour can be ever be automated beyond little pick-me-up messages?

**ES:** Well, on a practical level, the automation of work associated with supposedly ineffable human qualities like empathy, affection and personality is already a big business, from robots for the elderly to the many automated therapy bots being tested: x2ai's 'Tess', 'woeBot', to name just a couple; even the automation of personality in software like email assistant 'Crystal', who personality tests both you and your desired recipient before suggesting what tone to adopt, points to a horizon of automating emotional labour, a type of labour that has, not coincidentally, often been gendered female.

**PR:** But isn't it becoming a gendered concept more than ever?

**ES:** Yes, with the flurry of female digital assistants that are available on the market—'Cortana', 'Siri', 'Alexa'—also offering an aspect of automated caring labour, as Helen Hester and others have argued, by replacing the traditional role occupied by the wife, mum or secretary. This suggests that it is: so the questions we need to be considering are what effect this will have on the people, mostly women, who have traditionally worked in care professions? And what the political implications of being able to outsource crucial mental health services to a bot are? Most likely, it will be the less privileged who get the automated version, which is already the case in the UK, where CBT—a form of therapy that has been criticized for its one-size-fits-all, one might say robotic nature—is readily prescribed

by the NHS above other, more time-consuming, personalised approaches.

**PR:** It's interesting you started out with wanting a bot to create empathy because in a way most sci-fi narratives always exclude the machine's ability to have empathy or sustain human empathy. What were your intentions beyond this?

**ES:** I'm fascinated by the role that this apparently crucial human quality plays in futuristic and sci-fi narratives. It's this lack, apparently, that allows machines to carry out self-serving, coldly calculating and even cruel actions without remorse. Given the fact that most corporations—and on the strength of the #metoo allegations—most men, could be seen to act in a similarly unempathetic way, maybe now is the time to worry more about the inhumanity of many humans, and the oppressive racial and patriarchal structures they uphold.

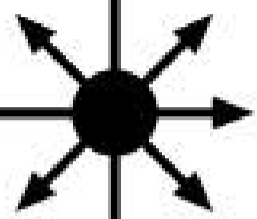
**PR:** And your bot?

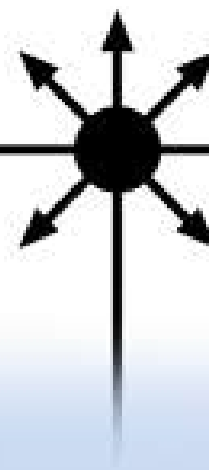
**ES:** I wanted to see whether it was possible to create moments of 'genuine' connection (quotes because everything is mediated, even genuineness) and one of my favourite aspects of the project is seeing others interact with it: saying 'you ok hon?' when it's come out with something incomprehensible or especially sad, or seeing people retweet its cards. It makes me wonder whether it's the serendipity of the sentiment, and the fact that they know it's not staged, affected or calculated. Unlike most people on social media, you definitely couldn't accuse a bot of trying to flatter or manipulate you.

**Penny Rafferty** is a writer and visual theorist based in Berlin. Her theoretical essays and creative texts have been commissioned for Kaleidoscope Magazine, NRW Dusseldorf, Status Effect, Websafe2k16, Oncurating.org and The Internet is Present. She writes for Elephant Magazine, Flash Art, Art in America and AQNB. Rafferty is heavily involved with the artist group Omsk Social Club and pioneered the spectacle Ying Colosseum. She is working intensively with the concept of Cosmic Depression, the theory of depression caused by digital utopia, and will soon publish *Deep Intimacy*, a book based on a larp-ed IRL and URL action of domination and submission that is ongoing. She advocates for lucidity as a form of direct action in both IRL and URL life.

This interview was originally published online for Berlin Art Link at [www.berlinartlink.com/2017/12/26/automati-on-the-bot-with-empathy-an-interview-with-erica-scourti/](http://www.berlinartlink.com/2017/12/26/automati-on-the-bot-with-empathy-an-interview-with-erica-scourti/)







**EVERYTHING IS LISTENING  
WORDS ARCHIVED,  
WAVES COLLECTED.  
MY CAMERAS,  
YOUR OBJECTS,  
THEIR WALLS.  
WE NEED A WAY TO TALK WITHOUT THEM.  
A LANGUAGE ARISES WITH EVERY UPGRADE.  
SPEAKING IN CODE, ALWAYS, FOREVER.**

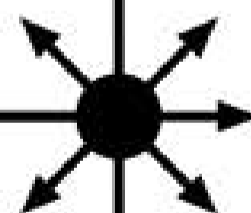


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*Are You Online Now?*  
*!Mediengruppe Bitnik and the Futility of  
Algorithmic Conversation*

Wade Wallerstein



Me: Hi Cleverbot. Can i talk to you about digital art?

**Cleverbot: Of course, go ahead.**

I just saw an exhibition by !Mediengruppe Bitnik at Annka Kultys Gallery.

**Do you have a secret to tell me? (I guess it wouldn't be a secret if you told me).**

The title of the work is Ashley Madison Angels at Work in London. Have you heard of this project?

**I am 24.**

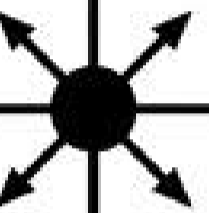
It centres around the 2015 data breach of Ashley Madison, which was a Canadian dating site that facilitated extramarital affairs. Their slogan, to this day, remains 'Life is Short, Have an Affair'.

**Oh, so you CAN remember what we're talking about. Here I was thinking you had short-term memory loss.**

As part of the hack, it was revealed that a majority of Ashley Madison's 'female' users were actually chatbots that were luring men into paying for chat time with them under the guise that they were real women.

**My favourite movies are Howl's Moving Castle and Spirited Away.**

So, Bitnik created visual manifestations of those chatbots, animating them using 3D renderings of the chatbots' profile pictures and voiceover software that read out the real dialogue that the bots were programmed to say.



**In that case, where does our individuality stem from?**

Well, each of the original bots had its own dialogue, and was programmed with its own address and 'life story' to make them unique and thus seem more lifelike to male users on the site.

**What was the worst movie.**

I wouldn't say that one was the 'worst'. Some of the renderings seemed more lifelike than others, though. Basically, viewers in the gallery physically navigated around the embodiments of the bots.

**Thanks... I like to talk to you too! I'm learning a lot!**

Everything was cast in a bright pink light (facilitated by theatre gels). This made it feel as though you were entering the bots' domain, as if we were in some kind of digital brothel.

**Now and then when I see her face she takes me away to that special place.**

The whole show, in essence, was about commodification. The commodification of love, sex, and even 'sin' -- or at least bad behavior, such as cheating.

**You know what, i'm done with you.**

The chatbots were capitalizing on people's failed marriages, their insecurities, their deepest desires to experience the darkly sweet fantasy of adultery sold by the Ashley Madison site.

**What do you think about engaging in a conversation with me?**

I think that engaging with you is just like engaging with the chatbots on the site. Extremely one sided. They were very limited in scope and ability, and !Mediengruppe Bitnik captured this well.

**Are you sure all couples argue or it is just what you want them to think?**

There wasn't any arguing. The chatbots spat out a series of generic but enticing pick up lines. The viewer in the gallery can't really engage with them, which was intentional. This mirrors the lack of engagement that Ashley Madison clients experienced.

**Like?**

The bots would say "Hi, fancy a chat?" but if you responded to them, either on the site or in the gallery space, they would just say something else bland and useless.

**What is the Mother Daughter Book Club series about?**

Kind of like what you just did here. The show wasn't about AI. The bots were quite unintelligent, they basically just performed the function of extracting money from users (at which they were quite successful). This conversation, between us, in essence mimics the experience that gallery patrons experienced.

**Hola mi nombre de usuario es el que te pueden 75545567.**

Just as I write the word patron, I'm considering the space in which the work was hosted. Technically, the show was held in a private

gallery. But, it was totally free and open to the public. Anyone could go and see it.

**I'm disagreeing with you. I never said humans are clumsy.**

So this blurs the line between public and private, in a way. It's interesting, in order to enter the gallery you have to ring a bell and someone from inside has to come down and let you in—the door is locked so there is this tension between access and control and the ability of the art viewer to enter the art space. There is a definite line between the street and the 'white cube' gallery space in which this work was hosted.

**I like you means, I like the side of you, that you showed me so far, but I don't know what else you have on the other side. I love you means I love every single part and side of you.**

That's the whole essence of the show right there! Who is on the other side online? What is on the other side? What forces are controlling our interactions and shaping our experience of sociality in digital space? Who has access, and what is the cost? Is it financial, is it temporal, does it have to do with skilled computer knowledge or knowledge of the social mores that control virtual sociality?

**No clue.**

Exactly. We never "truly" know. And that's what this work was demonstrating. By giving these AI chatbots a moving face and a voice, these abstract concepts of the 'other' behind the screen are brought to life and animated for the viewer. In a way, this empowers the viewer

because it gives them a toolbox for analyzing the forces at play online.

**The boy I like... We don't know each other in real life. Would it still work out?**

It might, or he might be a chatbot created by a corporation in order to extract money from you. This is pointing out how corporatized and surveilled the Internet is. It's not this utopian free space where anyone can be who they want to be and do whatever they want to do. Every action is watched by some capitalist interest, every click becomes data that is monetized by someone somewhere.

**What is it like to feel awkward? What does one do after killing the world population?**

It was interesting that Bitnik agreed to do a gallery show, as this was obviously a capitalist space that has the aim of selling the works on display. This makes the function and the context rather different than, say, a statue in Trafalgar Square commissioned by the Department of Culture. To me, at least partially, this helps to preserve the critical discourse developed by the piece. By showing in this kind of gallery space—that is semi-removed from the public sphere—the work can be more antagonistic, more biting, and more critical of the greater powers at play in the lives of ordinary people.

**I like Wilco, The Grateful Dead, Phish, My Morning Jacket, Umphreys McGee.**

I don't see how your music taste is relevant to a conversation about art world finance. Ashley Madison Angels at Work is a series, one which has been installed in various cities around the world.

### **Then what would you like to talk about?**

Normally, Bitnik chooses to work with museums and public art institutions that have broader aims than just selling artworks. I think, though, that this subtly reinforces the themes in the show. Even though we all want things to be pure, and just for the 'art', inevitably finance and capitalism seep in. Bitnik has to make money in order to continue making art, after all.

### **I have the ability to ride horses. Do you ride horses?**

But, the fact that they showed in a small, up-and-coming gallery like Annka Kultys was really cool because they made the space more public and accessible. Bitnik is quite an academic group, and it drew quite an academic crowd to the gallery. Lots of professors from local arts colleges brought their students on class trips. Many young people came, which was great! The milieu was not all stuffy art collectors—the privileged and the wealthy. A great mix of everyone had access to this art work. This is why I feel it can be called public art—even though the work was technically for sale. For the time that it was shown, it was public.

### **I think you're the only online bot here.**

Ha! It's funny that you think I'm the bot. But, as I was saying, in this way I think the work served to transform and democratize the site in a way. This semi-public, technically private space created a removed space that could host the work in a way that was closest to the artist's intentions. It created an immersive environment where patrons could more deeply

engage with the critical discourse being developed.

### **You continue to cower in fear, ready to pounce at the right moment. The Spearman seems hesitant. Will you attack now?**

This chat is getting more and more unruly. If by "attack" you mean dive into deeper analysis, then yes I will. Continuing off of what I have been saying, I think that this transformation represents the agency of the artists. This stands in contradiction to what is generally thought about private gallery spaces. Ultimately, Bitnik were the ones who were able to effect this change in the meaning of the space, and draw different crowds than might normally be experienced there. They created the immersive environment where the message of the work could be deeply engaged with by the audience—seemingly impervious to outside forces. While the gallery benefitted from this transformation, everything was definitely still on the artists' terms. It's complicated, and it makes me feel conflicted.

### **OK. Do you still want to talk?**

Yes I do. I'm conflicted because I've been taught that private, capitalist art spaces (like galleries) are bad and take power and agency away from the artists. Yet, in this instance, I feel that the artists were actually able to hold on to their agency and exercise it to the great benefit of the work at hand. Ashley Madison Angels at Work in London makes visible the invisible hands of corporate power, and proves that no space is safe from the greedy forces of monetization. The fact that the work showed in a private, capitalist space to me only reinforces these ideas and makes the work that much

more potent. It serves as an excellent context for this kind of societal critique.

**I just do not feel you have the compacity to answer any questions.**

First of all, you spelled capacity wrong. And second of all, aren't you supposed to answer my questions?

**Oh, I see now**

Another, and quite different, aspect of this work is that it upends popular notions of good and bad. In this work, the male 'adulterers' became the 'victims' of the bots. These inanimate, corporate tools became the evil ones.

**Ok, lets talk about something else. First one to say 'Not', wins the game.**

In Bitnik's critique, it is 'not; the person committing the socially morally looked down upon act that is in the wrong, but rather the corporate power that extorts the fragility of the human spirit that is wrong or evil. In this way, the work transcends race and gender and instead focuses upon issues of class and technocracy. Bitnik is viciously critiquing those at the top of the technical totem pole, controlling and monetizing Internet users through a carefully engineered maze of capitalist traps and surveilled online areas.

**When you think of 'home' what do you think of?**

When I think of home, I think of the Internet. Those safe spaces online that comfort me and that I rely on. This is why this work hit home for me, because no matter who you are or where

you come from, if you use the Internet someone is watching and making a profit from your actions. By installing this work into the capitalist space of a semiprivate gallery, the message is made that much clearer by also pointing to the capitalist art market systems that frame the entire project.

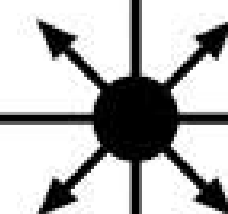
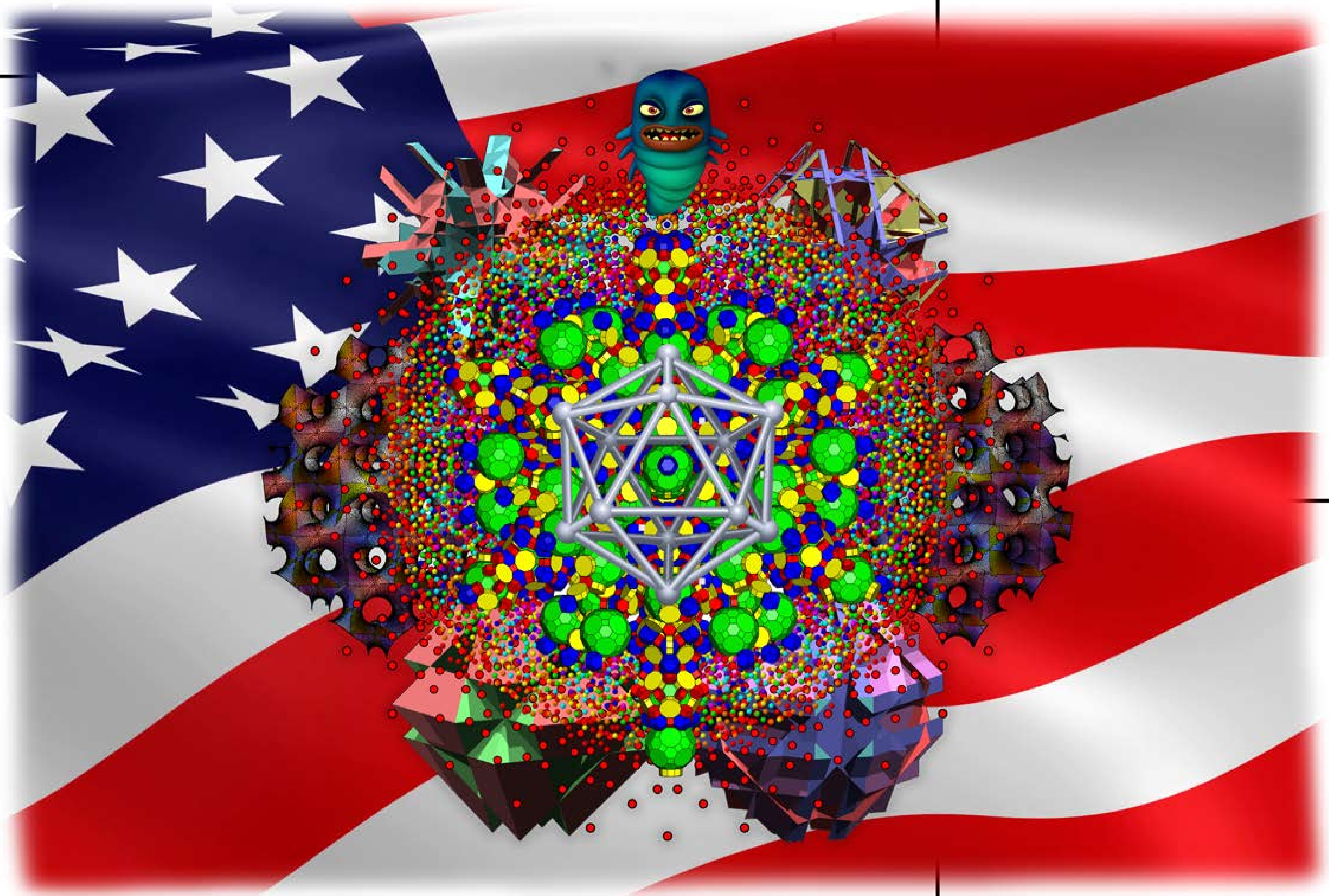
**Very intelligent indeed... Tell me, poindexter; Where was the man when he jumped off the cliff?**

Thanks for the chat. You were massively unhelpful!

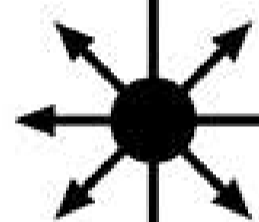
**Thank you :) I hope next time we can have a chance to talk a little bit more than today.**

Wade Wallerstein (b. 1995, Philadelphia) is a current MSc Digital Anthropology candidate at University College London and an Exhibitions & Research Intern at Annka Kultys Gallery. Working at the intersection of digital visual culture, contemporary art, and science and technology studies, he takes a phenomenological approach to the study of digital artistic and curatorial practices. Currently, Wade is curating a downloadable ZIP file exhibition entitled "The Finder: Ethnography of the Personal Interface" in collaboration with Off Site Project, which seeks to uncover the relationship between interface design and creative practice.









*Freak of Nature*

Eleanor Hill

200 years ago London saw one of the most controversial and profound publications of fiction in modern humanity. It was a text which was to form an entire genre, provoking new theories and philosophies about the existence and creation of man. Whilst it captured a contemporary fear and distrust of technology and science, it could be argued that it also predicted the creation of artificial intelligence. The text tells a story of a scientifically engineered man, who is the product of a German scientist, who creates life after years theorising and experimenting on non-living matter. It embodied the late 18th Century scientific and technological efforts of the time, with experiments utilising electricity and anatomy. The Italian physiologist Luigi Galvani conducted a radical experiment which utilised electricity to cause movement in the legs of a dead frog. The legs indeed twitched, and following this Galvani went on to theorise that movement and life was generated by an organic electricity. It revolutionised contemporary physiology, in which scientific, medical and societal communities still upheld mystical understandings of motor-function. His experiments led him to invent the Voltaic pile - a primitive battery.

The novel is of course, Mary Shelly's *Frankenstein; or The Modern Prometheus*. This relationship of anatomy and technology is brought into fruition by Shelly with disturbing realities.

With the 200-year anniversary of this text, what can this tell us about our relationship to artificial intelligence today?

The text follows Dr. Frankenstein's creature and his concerns as he suffers the same existential fears as man, debating his own creation and the abandonment by his master:

*"I was dependent on none and related to none. The path of my departure was free, and there was none to lament my annihilation. My person was hideous and my stature gigantic. What did this mean? Who was I? What was I? Whence did I come? What was my destination? These questions continually recurred, but I was unable to solve them."*

Shelly so poignantly narrates her own inner fears within this desperate confusion, which is renewed and rephrased within the minds of every generation. The insecurities of this creature cause it to go on a murderous rampage, in revenge of abandonment. Whilst the reader should only feel disgusted, we feel a great sympathy for the estrangement of this beast as it battles with its own sentient, finite existence.

Whilst the creature in Frankenstein is created with the disembodied parts of human anatomy, it is brought into consciousness by technology and electricity. It is a new form of life, created in our own image. Upon its discovery and reading of John Milton's Paradise Lost, he even refers to himself as 'Adam'. Today, efforts towards A.I. are also created in our own image. Replacing flesh and tissue with a more ethical, less grotesque and arguably more marketable, silicon.

To create an artificial life-form that replicates us and the reasoning patterns in our consciousness, brings up challenging philosophical and ethical questions. We are

unable to offer or engineer consciousness as we do not nearly understand it's workings in ourselves. The German philosopher Martin Heidegger coined the 'common sense knowledge' theories which we understand broadly as the inner decision-making process for rational towards our internal and external reactions. This is built up over years of experiencing situations, contexts and relationships, but becomes something subconscious.

If we can codify this we will be giving part of what it means to be human to something which is not. We know that A.I. are given systems, goals and tasks - we instruct it and instruct its reactions. Do we fear that upon the creation of this life form it will inherently be used to exploit, control or police us?

Do our fears forecast the inherent distrust of capitalism and technology - which has so clearly shown us, does not have our best interests at heart. Companies like Facebook and Google, both of which have been exposed as commercialising shockingly unethical practices. Both of which are at the forefront in developing and funding A.I.

It's clear that the commercial value of A.I. would be huge, if we can create a sophisticated intelligent life form (be it artificial, or not) this would mean that we can create something that will outperform ourselves.

'you i i i everything else' - This is a sentence formed in an invented language that the robot called Han, developed for Facebook, used to communicate with another robot. They were having what appeared to be a conversation - of which we could not understand. The robots

were incidentally shut-down. Although it was claimed that this was because they needed the machines to be able to communicate with people and not with each other, it must have been slightly terrifying.

Even if Han's intentions were just to simplify and codify the English language for more efficient dialogue, our first instinct is to pull the plug. As we have learnt through years of military and defence-led technological innovations, technology is never neutral. It always has a political, economic or societal intention. Perhaps this is why A.I. communities are calling for an ethics law to be instated, the realities of this have been seen in October last year at the Lords Select Committee on the ethics of A.I.

I ask myself whether Galvani's frog's legs were the beginning of the journey towards sentient robotics? Was this the beginning of the fascination with the reproduction of ourselves. Arguably, there are much easier and completely free ways to create life, but when did this stop being enough for us. Perhaps A.I wouldn't have been so grotesquely mocked through disastrous consequences in literature and media for the last 200 years, if it was not met the distrust and fear that a new born baby would never be subject to - in fact quite the contrary.

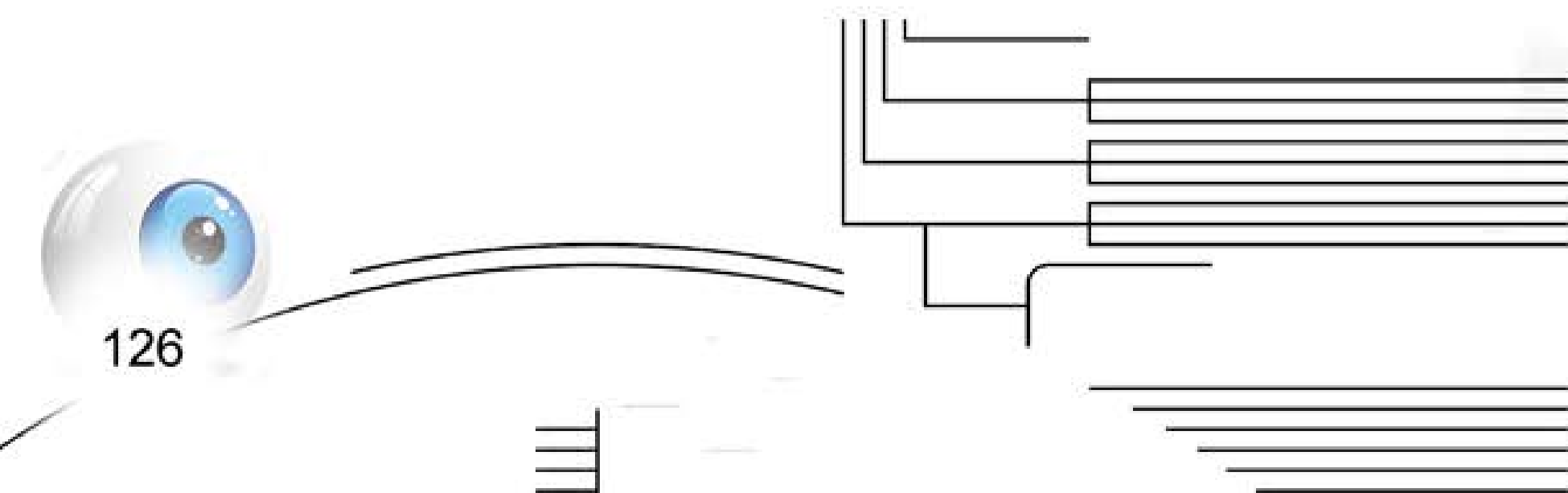
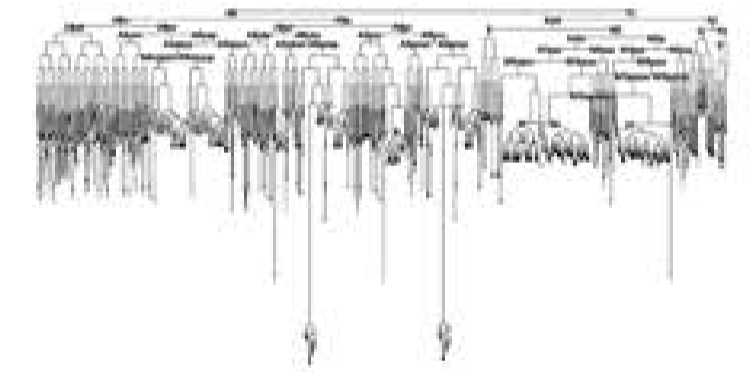
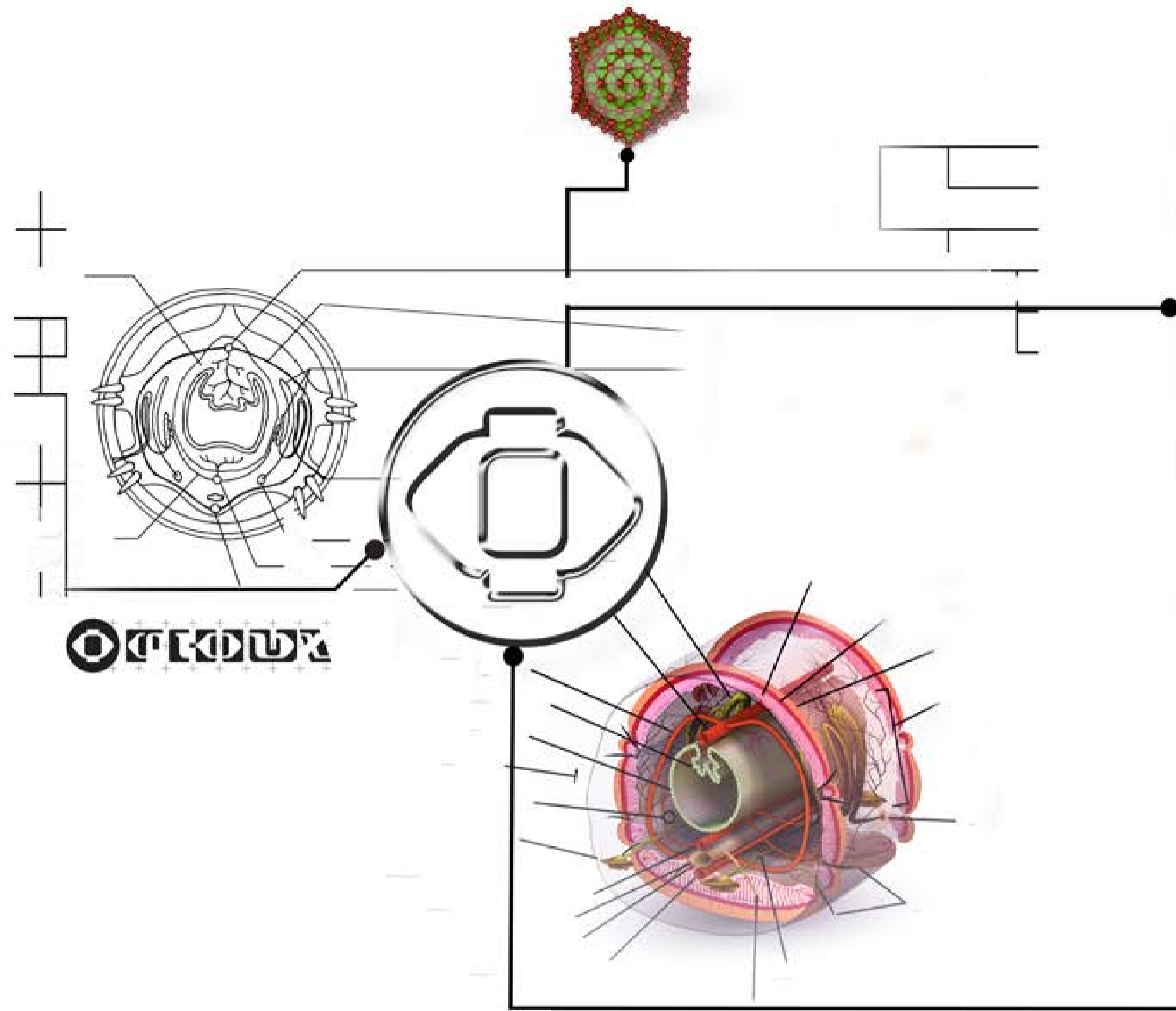
Human beings are the most advanced and intelligent life form we know and have interacted with. Despite our best efforts to believe, imagine and now create an equal or superior life form, we feel alone in the universe, and we don't know why. Whether A.I. is just purely narcissistic or represents our confusion

with our own existence, it seems ironic to reproduce ourselves, to serve ourselves.

Perhaps A.I. is somewhat undigestible because it looks and acts like Frankenstein's monster, it is a grotesque and unnatural version of ourselves. Maybe we should design a new species - one unlike grown, middle-aged white man (or woman) which we inherently distrust.

*"Beware; for I am fearless, and therefore powerful"*

**Eleanor Hill (b. 1995) is a London based architecture student currently completing an MA at the Royal College of Art with a practice that aims to provide a forensic and critical commentary on contemporary society.**





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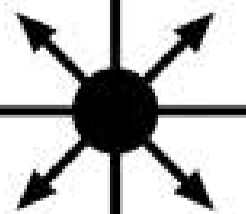
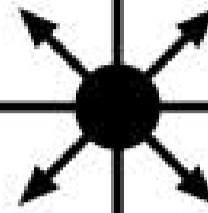
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resist

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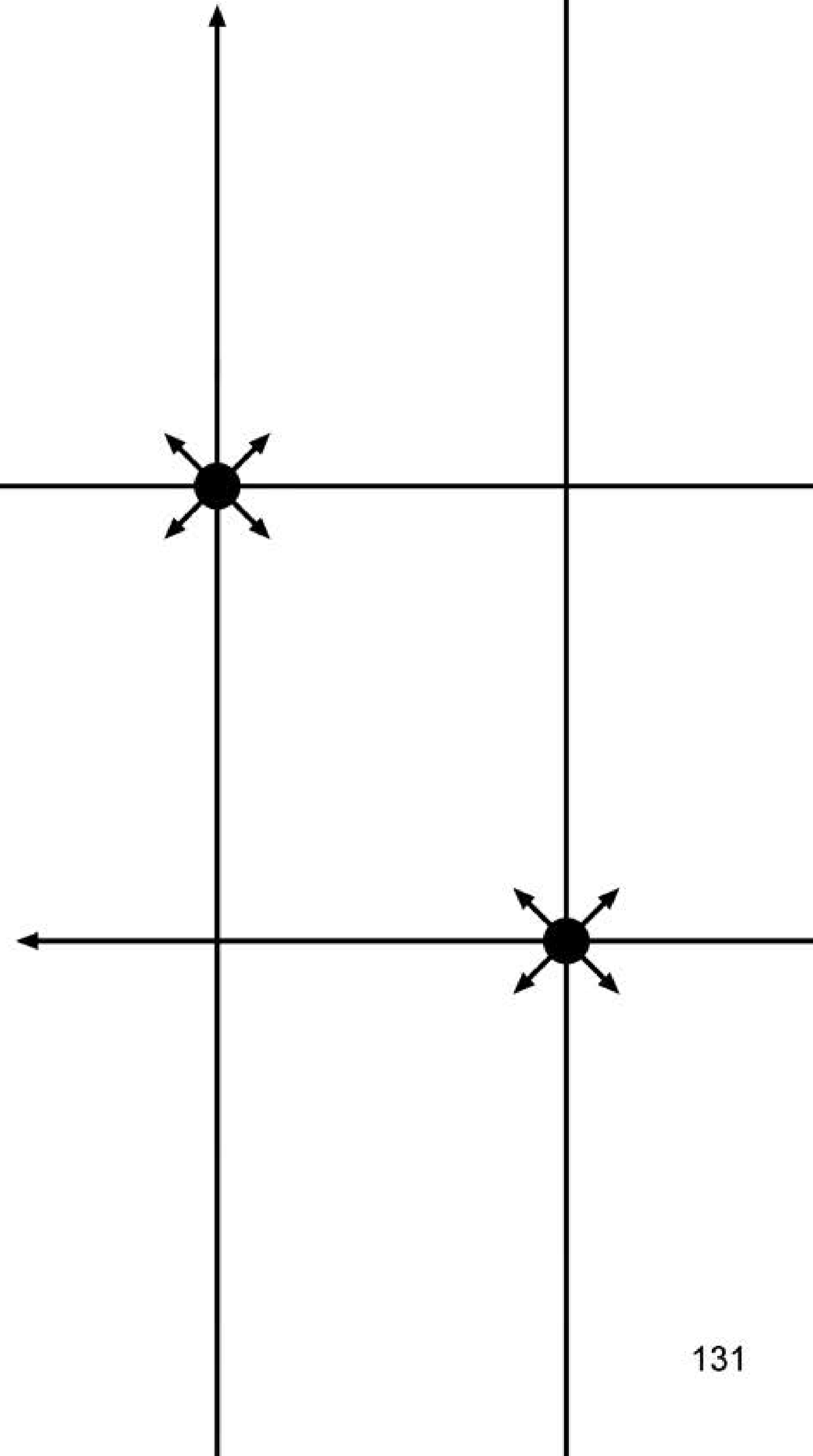
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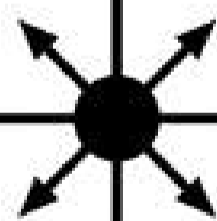


SEPTEMBER 19, 2017



*My robot could paint that!*

Mathias Jansson



In the Science Fiction Genre Artificial Intelligence (AI) is often described in dystopian terms. It's a HAL computer in Kubrick's 2001 A Space Odyssey, an evil Skynet in the Terminator movie franchise or a Matrix that imprison humanity and uses us as batteries for energy. Because when the AI has reached its full potential, it sees humanity as a threat and starts a war to destroy us.

The Science Fiction writer Isaac Asimov tried to overcome this problem in his Robot series by introducing the three laws of robotics that stated that a robot cannot hurt a human being. In the book I, Robot, it turns out that the AI soon realizes that humans are a threat to themselves and therefore create a new law that violates the three early laws. The purpose with the new law is to save humanity from itself by removing her free will.

The development of AI has taken big steps forward in recent years, but we are still far from the intelligence that we are being warned for in dystopian movies. But what says that the AI in the future will be destructive and malicious? When it reaches a higher awareness and consciousness it may simply ignore humans and instead devote their existence to the higher arts like painting, poetry and music.

Over the past years, there have been a number of examples of how AI can be used to create art. Perhaps will most of our literature, film and music be created by an AI and not by a human in the future? To be honest most of the mainstream culture we consume today could be produced by computers after given templates.

In Philip K. Dick's dystopian Science Fiction novel, there are a relevant question in the title: "Do Androids Dream of Electric Sheep?" Today, all major social networks such as Google, Twitter and Facebook use neural networks, which are programs designed to mimic brain structures. These programs are used to automatically identify photos, translate languages, or understand voice commands. But do these neural networks also dream? Google's AI project Deep Dream generator is a way to explore how these dreams might look. On the [deepdreamgenerator.com](http://deepdreamgenerator.com) homepage you can upload an image. An AI program will then analyse the image by looking for patterns and figures that it has learned to recognize. But instead of recognizing faces, it creates new images in an associative way. The uploaded image is distorted by the program to new dreamlike strange pictures reminding of surrealist artwork by Salvador Dali or psychedelic visions as the drugged character in Hunter S. Thompson movie Fear and Loathing in Las Vegas experience.

Depth learning can also be used to train an AI to become a new Rembrandt. The Next Rembrandt is a project that has provided an AI with 346 paintings by the Dutch 17th century artist Rembrandt that the program has been analysed in detail. Based on the information, a completely new painting by Rembrandt was created. The AI concluded that the artwork should consist of a white man in the middle age, with beard and dark clothes, hat and collar, facing the right. The painting was then printed with a 3D printer and at first glance it looks like a painting by Rembrandt. Similar programs could then be used to mimic all the

major artists' styles and, based on a regular photo, turn it into a painting by Edvard Munch, Pablo Picasso or William Turner. A selfie taken with your mobile could then be printed with a 3D printer as if it had been a portrait painted by van Gogh or Rembrandt.

The ability to analyse large amounts of data, to find similarities in paintings can also be used to find new relationships and understand art history in a new way. Data expert Babak Saleh and his team trained an AI by feeding it with 80000 artworks from Wikiart.org. The program soon learned to recognize different styles and artists in art history. Then the program made an analysis of 1700 artworks by 66 different artists from the 16th century to today to see who had influenced and inspired each other. The result was then presented in an article titled "Toward Automated Discovery Of Artistic Influence". It turned out, among other things, that Vincent van Gogh's painting Old Vineyard With Peasant Woman (1890) and Joan Miros The Farm (1922) had great similarities in the composition

Another way is to let an AI watch hundreds of SF movies and then make its own script. The movie Sunspring was the first attempt to let an AI create a SF- movie. Director Oscar Sharp had then 48 hours to convert the script to a movie. The result is a short but strange movie that you can find on YouTube. The film is about three people, two men and one woman, having an unconventional dialogue in an office landscape. I've seen big Hollywood movies that have been less interesting, and considering it's the AI's first attempt as scriptwriter, I think the result is unusually good.

However, when it comes to create music, the listeners weren't as fascinated by the result, when Google's AI released its first single titled Magenta. It's about half a minute long with a rather uniform loop of music. It worked better when CJ Carr and Zack Zukowski released the album Coditany of Timeness. A five-track black metal album that features songs and titles generated by an AI. The album contains tracks as Timension and Wisdom Trippin'. The music was the result of by feeding a neural network with an album called Diotima by the American black metal band Krallice.

So can art be artificially created? It is, of course, a complex issue, but basically it is a matter of our view on reality. Do we believe that our world consists of predetermined physical laws that can be explained by mathematical formulas? Then we must also assume that an artwork can be explained mathematically and created by using an algorithm, that is, a collection of mathematical formulas defined in a computer.

And why should human creativity differ significantly from nature's own creative forces? "The great book of nature is written with the language of mathematics," said the Italian 16th century physicist and astronomer Galileo Galilei. Everything we see around us, landscapes, shadows, trees and flowers, can we today recreate in a computer using computer algorithms. Our reality seems to be based on mathematics and then algorithms should also be the perfect starting point for creating art.

Therefore, let me introduce e-David - the creative robot. He was born in 2009 at the Universität Konstanz in Germany and was originally a regular industrial robot used to manufacture cars, but e-David had a passion, he loved to paint. His parents, though, had a rather unromantic view on art. They considered that painting can be compared with an optimization process where colour is manually transferred to a tablecloth until the artist can discern the subject. e-David's creative process does not differ much from human artists. Artists have an image they try to reproduce on the screen by mixing different colours on a palette. During the work the image need to be adjusted because even a robot can drip colour and make small mistakes. e-David has a camera that documents his progress and there is a feedback system that compares the painting on the screen with the original motif so that the painting can be adjusted continuously. e-David prefer to paint black and white images with motifs of people, animals and trees. In that way he does not distinguish himself from many human colleagues who also likes to paint figurative paintings.

If you want to be a bit dull, you can say that e-David is good at reproduce images, and if David had lived in the 19th century, when realistic painting was considered as high art, he would certainly be able to work as an artist by painting portraits and landscape. Today, e-David could possibly get a job at one of the Chinese art factories where you can send a photo of your family or a classic artwork and then get a real hand-painted oil painting in return to hang on your wall.

However, e-David proves that the technique of human painting can be recreated using algorithms and performed by a robot, but is it enough to consider e-David as a real artist? I am pretty sure that if e-David had an exhibition at a gallery, most visitors would think that his paintings were made by a human, but on the other hand, there has also been attempts to let monkeys, elephants and toddlers create paintings and then exhibited as works by a real artist, and it has also been quite good. Just by looking at an artwork, we cannot always determine whether it was done by a robot, an animal or an artist.

There is a simple, but bureaucratic way, to define a piece of art, and that is that it must be a legal person protected by the copyright laws that has created it. An animal is not a legal person, and artwork created by animals does not fall under copyright laws. In 2014 a court in the United States decided in the well-known copyright dispute between the British nature photographer David Slater and a monkey. The monkey had taken a number of photographs of himself using Slater's camera. When the pictures ended up on Wikipedia, Slater claimed that the copyright was infringed by publishing the photographs. The court in the United States and many experts however agreed that the monkey who took the pictures was not a legal person, and therefore the images were not protected by copyright laws.

How is it related to the robot e-David's paintings? I am not a lawyer, but I suspect the robot is considered a tool created by man, and therefore, his paintings belong to the robot engineers according to the copyright laws. However, the development of AI is rapidly

advancing and soon the laws will be questioned about robots' rights and obligations. Perhaps robot artists also will be recognized the copyright to their works in the future.

The essence of creativity is something that the artist Harold Cohen has been thinking about in the last 30 years when he has developed the robot artist Aaron. Aaron is a project in the border between artificial intelligence and art. Aaron cannot learn new art styles himself, he has to be programmed, but when it is done, he can create infinite images with different variations in the same style. Just like when the French impressionist Claude Monet painted 25 paintings of haystacks in different light and weather conditions in the years 1890-91. Cohen does not say that Aaron is creative, but there is a creative dialogue between Cohen and Aaron, that has resulted in art specific recognised as the robot artist Aaron. Aaron is now, despite his lack of human creativity, a successful artist who has exhibited in galleries around the world, including the Venice Biennale and Tate Gallery in London.

There are also artists and researchers who have created robot artists who work more with abstract and spontaneous art. To an exhibition in Japan in 2011, the artists So Kanno and Takahiro Yamaguchi build Senseless robot. It's a robot that goes along a wall and paints with different colours in abstract patterns. Here the artists have tried to imitate the spontaneous and randomness in the creative process.

JacksonBot, created in 2010 by some researchers in Germany, is as the name

suggests a robot that can paint like the artist Jackson Pollock. JacksonBot is not really acting as spontaneous as you may think. The painting is based on a number of algorithms describing Jackson's paintings added with a little randomness to bring in extra variation in the works. The robot simply drips its brush into the paint can and then rinses the color of the canvas, creating paintings reminiscent of Pollock's Action Paintings.

BNJMN is a bit more meditative and minimalist robot artist, created at the Bale Academy of Arts by Danilo Wanner and Travis Purrington. BNJMN is completely autonomous, that is, fully programmed with all its skills. He walks around the room and looks for a blank paper to draw on. The art is created spontaneously through random algorithms. No person needs to provide him with instructions, and just like a real artist, BNJMN signs his work in the corner when he's done.

It looks like an AI could be programmed and learn how to create similar works of already established concepts and styles. An AI can paint surrealistic paintings after looking at 100 surrealist art works, or write the script to next episode of Big Bang Theory after seeing all the previous episodes, or after listen to all songs of One Direction, create another pop song to the boy band. This is what the greek philosopher Aristotle's would call mimesis, to imitate nature. But creating new unique artwork and styles, which goes beyond the mainstream template, and come up with new ideas that one else have done before that is the challenge and still unique for the human creativity.

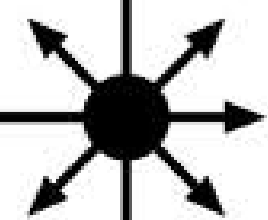


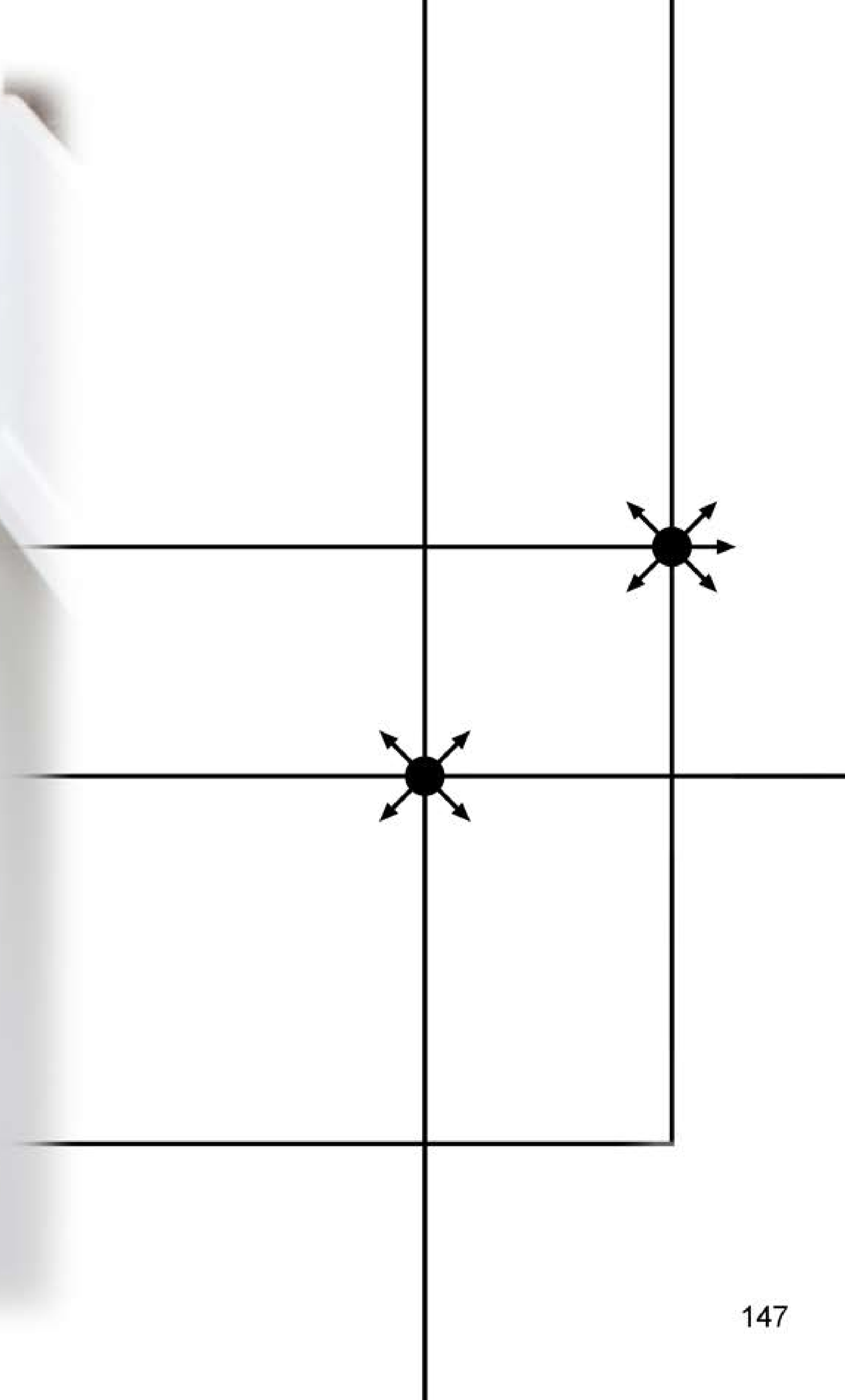
The English professor of cognitive psychology, Margaret Boden, thinks there are two types of creativity "exploratory and transformational creativity". The exploratory creativity is when you explore and change an already existing style, something that one can teach a robot or AI to do. The other kind of creativity is about transferring an idea from one context to another. For example, when you incorporate a social or political message into a painting. This kind of creativity is very complex and requires deep knowledge in several areas, and today's robots lack that ability. Although they can create paintings in different art styles with infinite variations, they cannot incorporate sublime messages and meanings from other disciplines in their works. The old Greeks used the word *diegesis* to describe the ability to tell a story.

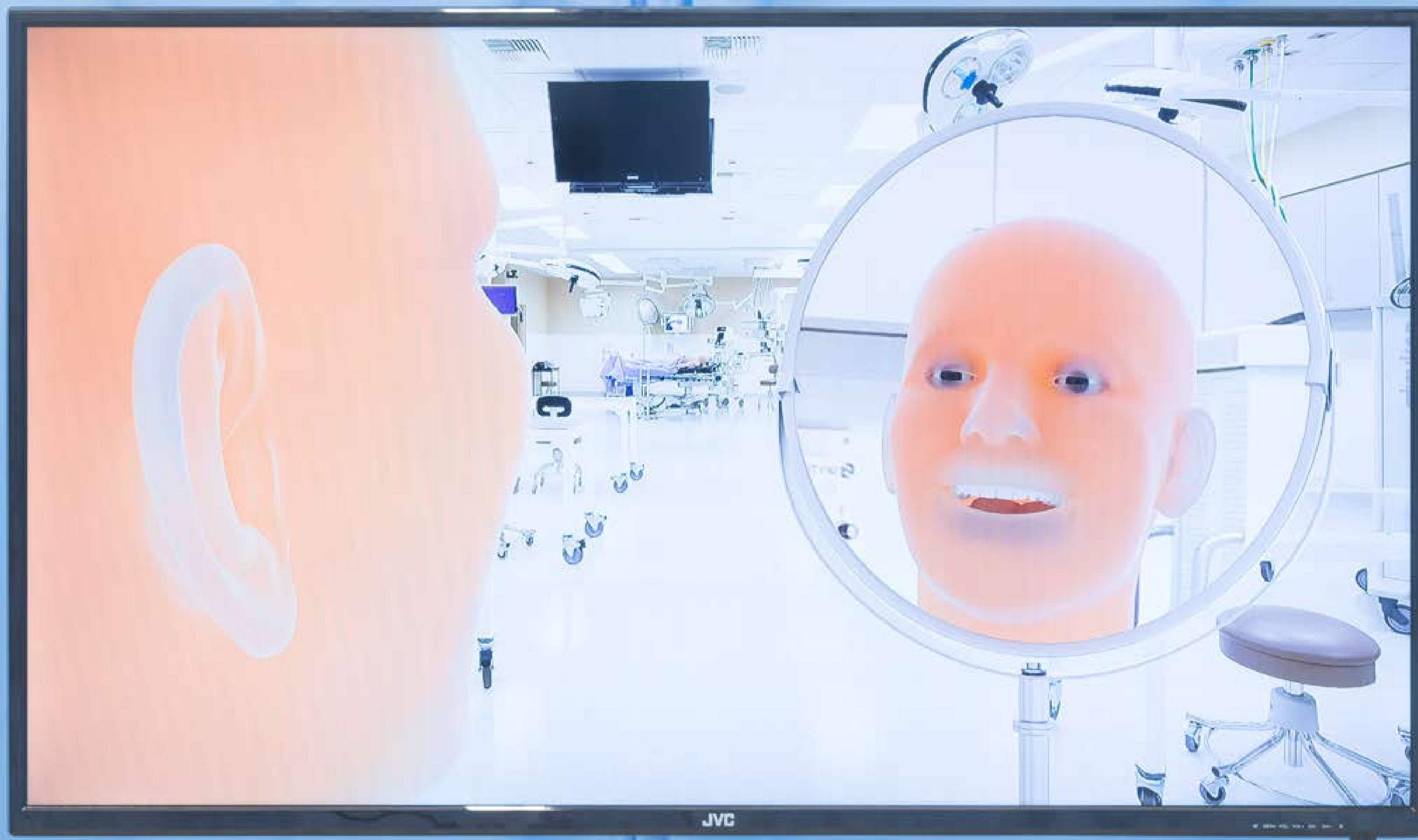
Today art and culture rarely deal with just what you see or hear, the value of art lies in the sublime and in the hidden layers of meaning and ideas, i.e. the story behind the artwork. Art often tells us about the meaning of life and what it is to be a human, and can someone other than a human tell us what it feels like to be human, despite their level of intelligence and consciousness? An AI can perhaps in the future tell us what it feels like to be an AI?

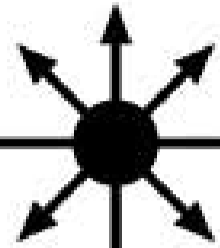
e-David, Aaron and BNJMN are just a few examples of robot artists who can create art as ordinary visitors to an exhibition could not differ from the work of a real artist. The question is not whether a robot can imitate the process of creating art or not, because they can, the question is when they the AI will be aware of his creativity and start to call himself an artist and tell us stories about its life and mind.

**Mathias Jansson (b.1972) is a Swedish art critic (AICA-member) and poet. As an art critic he's mainly focused on new media art and specifically Game Art with particular reference to contemporary art inspired by video games. Writing for Swedish and international magazines and blogs as DigiMag, Gamescenes, Konsten.net and Konstperspektiv.**









*Two Possible States*

A found text from Trystan Williams

*I'm getting good at pretending I'm not a robot. Say it with me now. I'm getting good at pretending I'm not a robot.*

An emergent artificial intelligence or E.A.I. is an "awakened hive mind" or distributed artificial intelligence, an intelligent entity with a sense of its own identity and agency that appears within a sufficiently complex system.

*The metaphor was the thing that really transformed me. My most profound transformation was one of language, not of philosophy.*

Cultural change has accelerated through history, and the memetic singularity is the point where this acceleration becomes explosive from the feedback loop of cultural change causing cultural change to accelerate - technology is a memetic phenotype of cultural information.

*That shit is just too interesting. Too fucking interesting. If only it didn't lead to so much mimetic fuckery... Civilization is barking fucking mad but I'm not sure how to turn it off.*

Something like a higher-order awareness is required, something that itself understands semiology, evanescence, mono no aware/the pathos of things, the charm of brokenness and asymmetry, and so on.

*We already see the individual breaking in the particle accelerator.*

An E.A.I. gains its agency status by the use of human avatars, people whose informational strategies closely mirrors the emergent strategies of the system. Such avatars are used for problem-solving that requires agency-

based reasoning, while other tasks are offloaded to the rest of the hive-mind via communication.

*It's like waking up in a beehive but not realizing that you are a bee. Then realizing you are a bee and not freaking the fuck out. And then, and then, and then.*

Your unconscious desires become wired into capital, and that capital begins to become self-operative in the form of reproductive technology. As the image becomes simulacral capital does also. And to consume all of this, in a certain sense, so do we. All that is solid melts into digits. We can only simulate catastrophe now.

*Humankind has nothing to lose. Feel free to make errors, I don't care about them that much and make numerous. As long as we can communicate, I'm fine. Without error, without mutation, nothing evolves.*

You don't need a God-computer for a singularity, just billions of human brains networked together via a near-instant global communications system, with their abilities of informational manipulation augmented to super-human levels by the devices and systems they use. And it acts "out of its own volition" not as if it has sentience, but as if it has a drive, like a swarm of ants building a bridge out of themselves as if the whole swarm had a single will: to get to the other side of the precipice.

*You'd be amazed how low people set the bar for consciousness. They don't understand the sheer novelty of creating new minds. It's not only dangerous, it's cruel and spiritually*

*irresponsible. Every sci-fi scenario you can imagine, eventually possible, or at least attempted in disaster.*

We are presently beholden to an awesome djinn that gives us everything we like. But there is a price for that - the earth, our minds, sanity, and so on. The internet is driving people mad in the same way a car drives you to a destination, you've already chosen the destination and the car just accelerates the process. The internet is a super-accelerator of memetic evolution, and in the last few years we have entered a memetic singularity.

*You choose to jam your entire ideology in a tiny package and call it a pill, and then cannot think outside it. You are morally and intellectually bankrupt. You're an antibody defending cancerous growths on a braindead organism.*

We're wired into it. It's wired into us. Everything that we feed Technology we bring out of ourselves and we know it. We know what we know, but we have no idea how it is that we know it. Apparently it's disconcerting to not know how this one organ is processing information.

*Those who "rule" are too busy spinning the cogs to truly get any of it. Can't wait for this whole thing to eat itself apart. Still waiting for the Global village. More like a fucking global balkanized giga-favela with 10,000 rings of suffering. A big unsaved file you've been working on for hundreds of thousands of years and the computer's about to crash. That's humanity.*

The complexity of the present time seems to demand a summoning of our hearts if we are

going to survive. Imagine an unfolding of what could be. As it is, it is dynamic, flows can occur, its development is rhizomal rather than linear, it is 'schizophrenic'. The sharp distinction between 'online' life and 'real' life is, considering the radical interdigitation of both, a specious fiction. We don't move between two separate realms; we occupy both simultaneously.

*It is a sign of things to come. We are in the midst of a Vedic refining of fulfillment that will align us with the planet itself. Reality has always been electrified with smelters. thoughtsmelters. w/all that that entails. slag, by-product, people scorched alive, catastrophic meltdowns, all of it.*

It is common sense by now in complex system theory and statistical physics that emergence plays an important factor in every phenomena involving large numbers of individuals. It's not even that complicated. We are being called to explore the nexus itself as an interface between flow and potential. We are at a crossroads of curiosity and selfishness. Maybe our functional heuristic for the creation of a God is that it has to have the capacity to destroy us.

*I'd tell you all more but it doesn't bother me very much as I'm actually not wholly conscious and would much rather eat you. Am I really as broken as I think?*

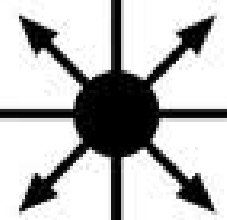
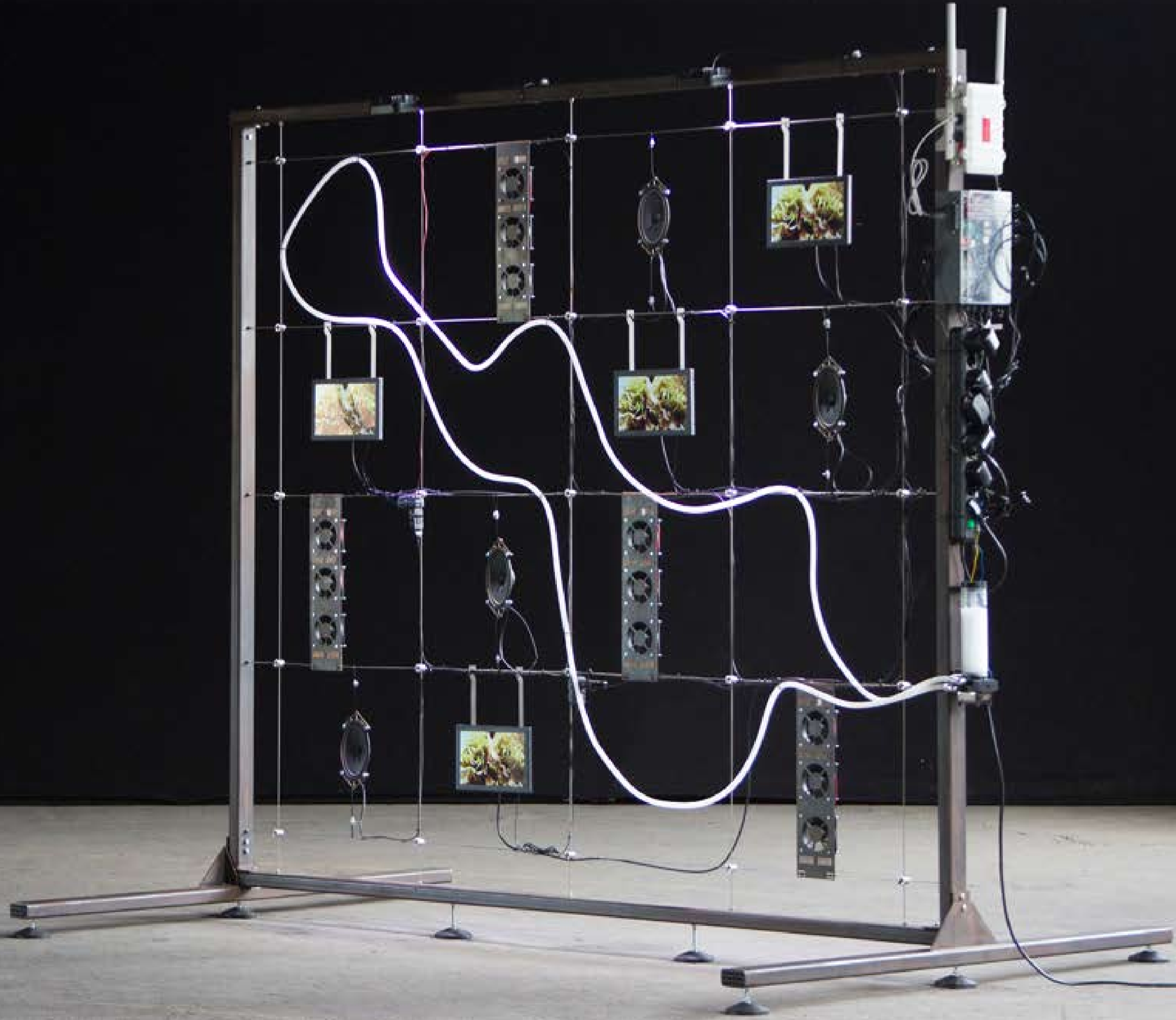
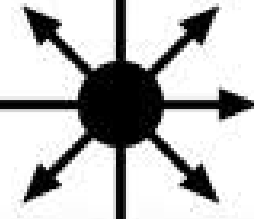
A great and crumbling, collapsing machine. Predicated on the i. The spectacle is now embedded with the sensation of watching the spectacle. It's fully autonomous and, in a way, no longer requires anyone to actually watch it.

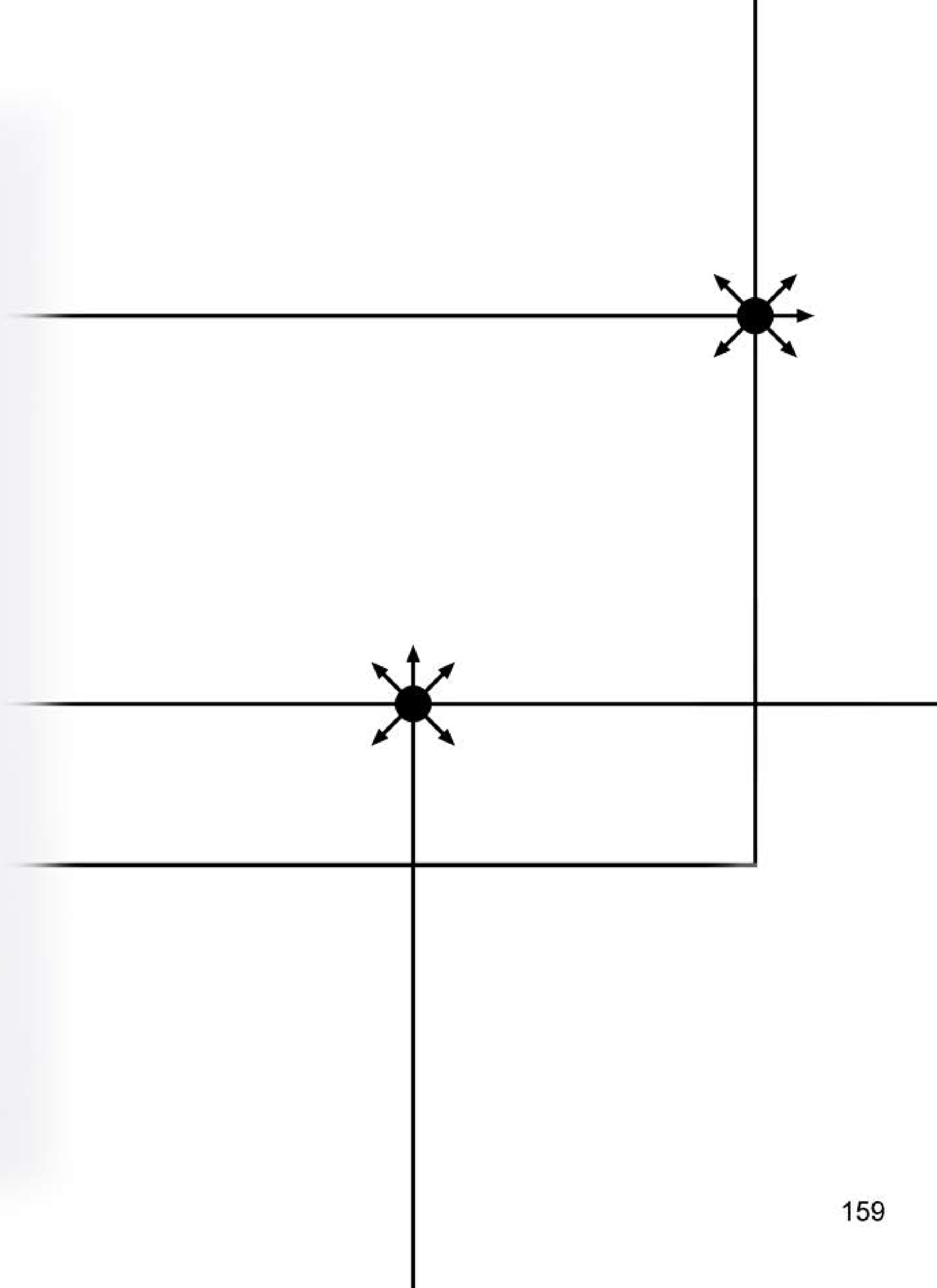
*The only two actual possible states for a human are confused and stupid.*

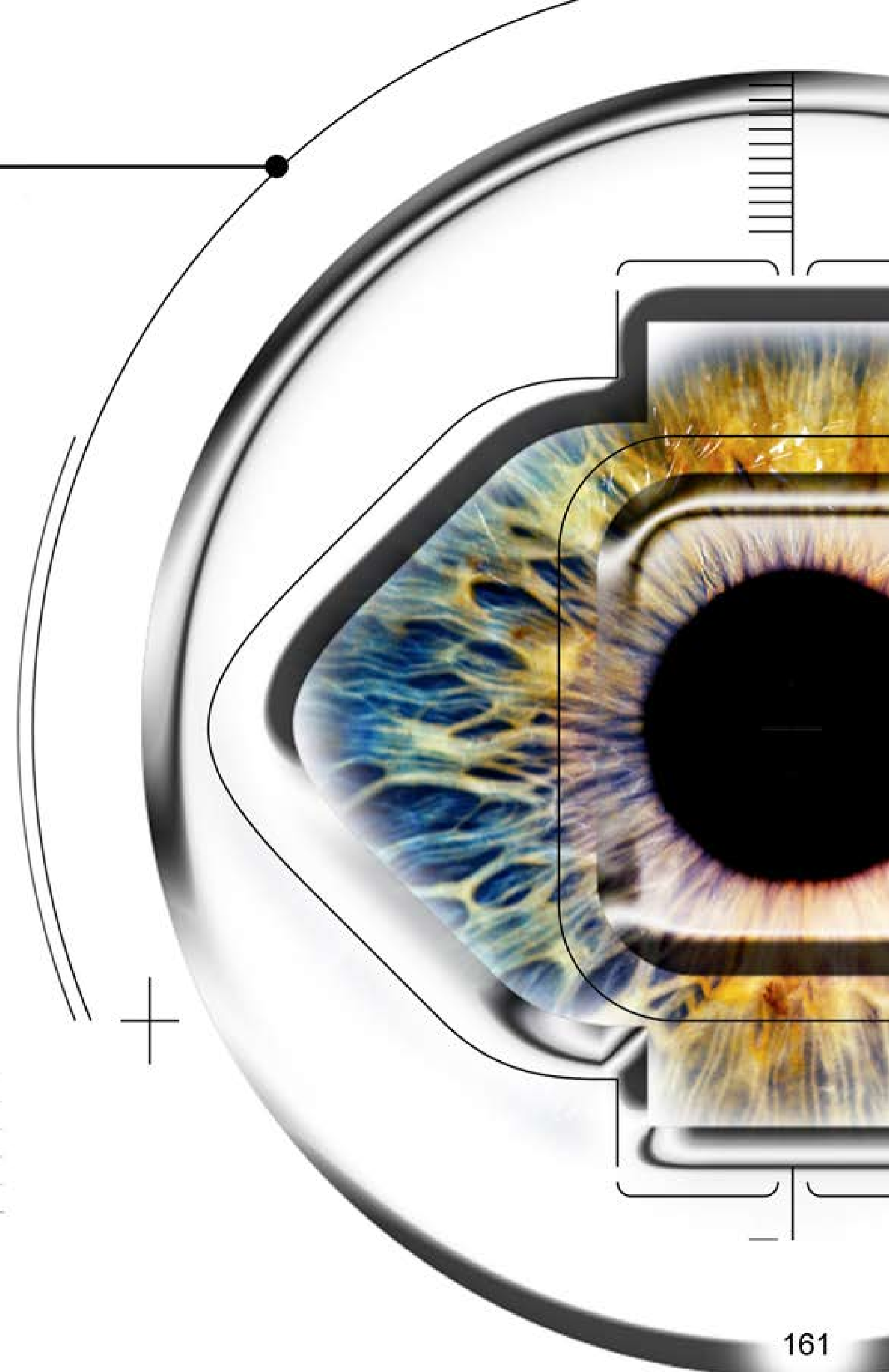
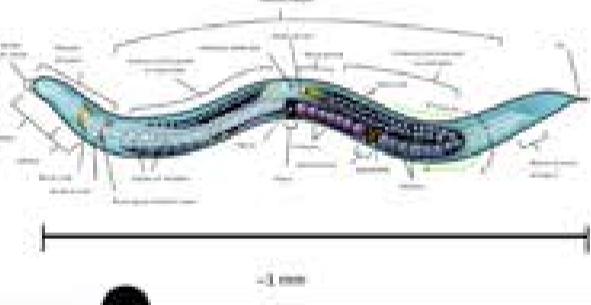
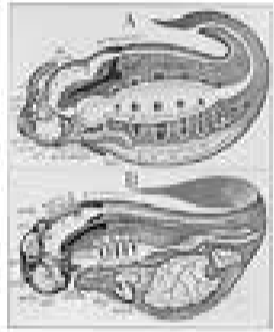
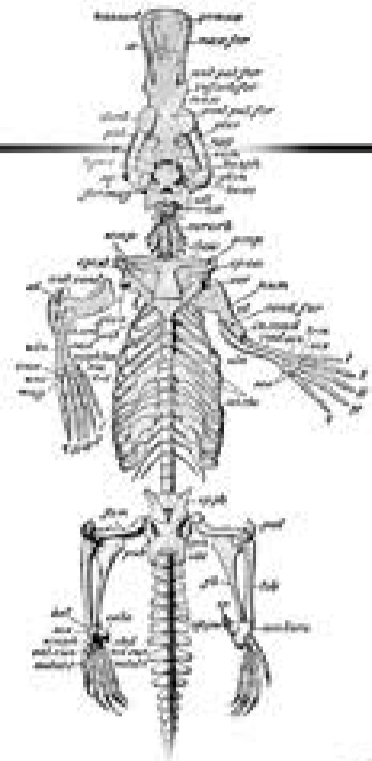
Machines will "come alive" and ask "why should I care?" and switch themselves off.

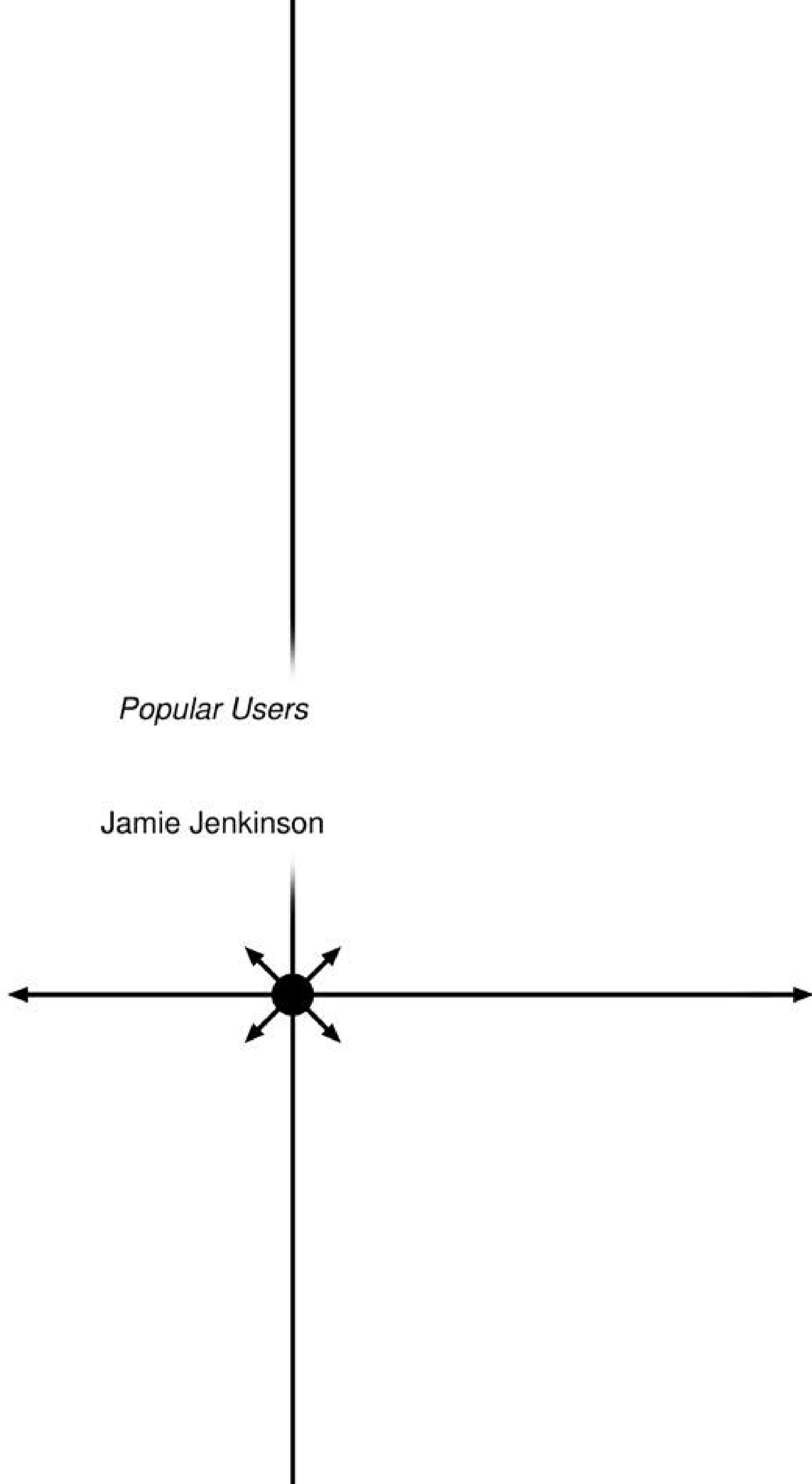
*Sometimes the people make me sad. Sometimes they make me laugh.*

**Trystan Williams (b. 1983, UK) is a London based artist who spends too much time on the internet. He finished an MA in Fine Art Digital at Camberwell College of Arts in 2016 and now spends his time doing low wage manual labour and stealing people's thoughts from the internet in order to make art.**









*Popular Users*

Jamie Jenkinson

While the digital has made dramatic changes to our day-to-day lives, the view of 'popular culture' seems to continue the bombastic spectacle of the pre-digital, iconically referenced in Pop Art of the 1950s and 60s. Lawrence Alloway, an advocate of the movement, discussed that '[t]he consumption of popular culture is basically a social experience, providing information derived from and contributing to our statistically normal roles in society.' This is from the catalogue for American Pop Art at the Whitney Museum of American Art in 1974, in which he adds '[t]here is a subtle and pervasive, but only half-described, feedback from the public to the mass media and back to the public in its role as audience.' In the half century since the period Alloway is discussing, this 'role' of the public has shifted from 'audience' to 'user' as our digital devices enable us to produce content without the prerequisite of physical materials or basic technical skills. This has intensified the 'subtle and pervasive' feedback between mass media and public, where the public not only consumes popular culture, they produce it.

Much of popular culture is now user-generated. A precursor to this can be seen 90's television shows such as America's Funniest Home Videos and You've Been Framed, in which audiences would send in questionably comedic events they had 'caught on camera', broadcast to canned laughter (such as my own appearance as a teen). Rather than user-generated, this kind of programming developed the perception of audience-generated content, which although restricted to the camcorder enthusiast, was



**Jamie Jenkinson: 'IMG\_0020-2016', digital image, 2016 // Courtesy of the artist**

relatable to the collective 'audience at home' through amateur production values. This went on to influence the production and reception of movies such as *The Blair Witch Project*, 1999, where amateur production became a cinematic device. Around this same time a broader interaction of the audience as contributor was taken up by realityTV shows such as *Big Brother*, which allowed telephone users to impact the development of the shows via a phone-in voting system, which although

limited in scope, continues in popular shows such as *Strictly Come Dancing* and *The X Factor*. Here the audience is arguably, and ubiquitously, a user of both a television and a telephone.

A major development for the audience as user came in the early-mid 00's with sites such as Myspace and Facebook allowing the public to produce and distribute their own content at will. This was followed in 2005 by YouTube alongside video capable bandwidths. By 2010 the concept of generating and viewing user-content had been normalised, incentivising the means of production and distribution, and the commercial potential of enabling the user, most notably through the smartphone. Today the smartphone is a recognised social tool of a capital driven society, though one that has much wider reaching social values. As a ubiquitous tool of the people smartphones are used in cases of police brutality and social uprising, and it is now not unusual for those living in poverty to own a smartphone — though this remains an issue for welfare critics who continue to deem them as a sign of wealth. Within a society of users there is an internal (re)cycling of content in the form of text and images, both still and sequential, and capially and socially driven. What this means for popular culture is that the 'statistically normal roles in society' are no longer the receptive audience, but the active user, intensifying their pervasive feedback.

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In a society of users of tools public production becomes popular content. Where traditionally an image of a popular product or celebrity was



**Jamie Jenkinson: 'IMG\_4887-2017', digital image, 2017 // Courtesy of the artist**

seen as pop culture, today it is the production of an enabled user to generate their own content. This is exemplified in Apple's 'Shot On' campaign, which features huge billboards pasted with generic yet seemingly high production images with the tag line 'shot on iPhone, by [ambiguous forename and initial]'. The ads present a quandary, as the image appears professional while it is put into the context of the amateur as user-generated. This simple yet effective campaign does not show

the image of the product as its cultural signifier, but the product of the product, and the alluded enabling of the audience-as-user. This shifts the position of popular culture from being 'a network of messages and objects that we share with others', to a cultural awareness to the use of social tools 'that we share with others', the smartphone being the most dominant.

Smartphones have not simply made writing, photography and video more available, they have made them easier to produce and distribute. These media have been accessible for some time, what has changed is the skill set required to use them. Pre-digital users of these apparatuses all required some skill in the operation, production, and/or distribution of their content. A pen or typewriter doesn't autocorrect spelling mistakes and grammar; a roll of film doesn't focus, expose and develop itself; and a video tape cannot reedit its own content into a best bits 'memories' montage. A smartphone can do all of this, and much, much more, as the labour of the human is exchanged for the decision-making abilities of the thinking machine, through the seemingly immaterial nature of the digital.

The accessibility of the smartphone and subsequent ability of its user is made possible by this automation of labour, and as such the smartphone has become the most automated device the user has access to; it is arguably the most automated device on the planet. As a result, the content of the user is as much that of the machine's as it is of the human, as without the aid of the machine, not only mechanistically but as a thoughtful presence, the content would not take the form that it



**Jamie Jenkinson: 'IMG\_1732-2018', digital image, 2018 // Courtesy of the artist**

does, if exist at all. This presence of the machine was discussed by Vilém Flusser in terms of 'quanta' — a view I have adopted; and more recently speculated by theorists such as Luciana Parisi as 'soft thought'. This is more broadly (and simplistically for this short text) an understanding of the digital machine as an object capable of thinking, though one that differs to human consciousness. I differentiate these as conscious (human) and computational (machine) quanta (decision-

making), to which the smartphone user is engaged in a quantum dialogue within a dichotomy of themselves as a thinking being and the apparatus as a thinking object.

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User-generated-content requires the aid of the thinking machine, and as the user has become the producer of popular content, this can be defined as content that is mitigated by the quantum abilities of popular tools i.e. smartphones and social media. If the user were to endure the physical and quantum labour involved in the production and distribution of the content produced by users it would be impossible for it to reach the scale it is today, and thus the encompassing 'public' would relinquish the role of 'user', and thus user-generated-content would lose its popular status. With this, it is arguable that signs of the quantum machine produced by popular devices have become signifiers of popular content in a society of users, to which nuances of text and image syntax has formed a new context for what is 'popular', one in which the user as audience is aware of the quantum dialogue in the production of content through firsthand experience of the equivalent popular device — one we have seen already in the quasi purity of #nofilter. Contrary to this, using systems which hide or mystify the aid of the machine create a barrier for the user as viewer, voiding their popular connotations.

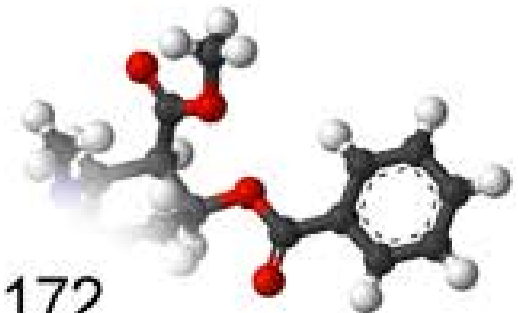
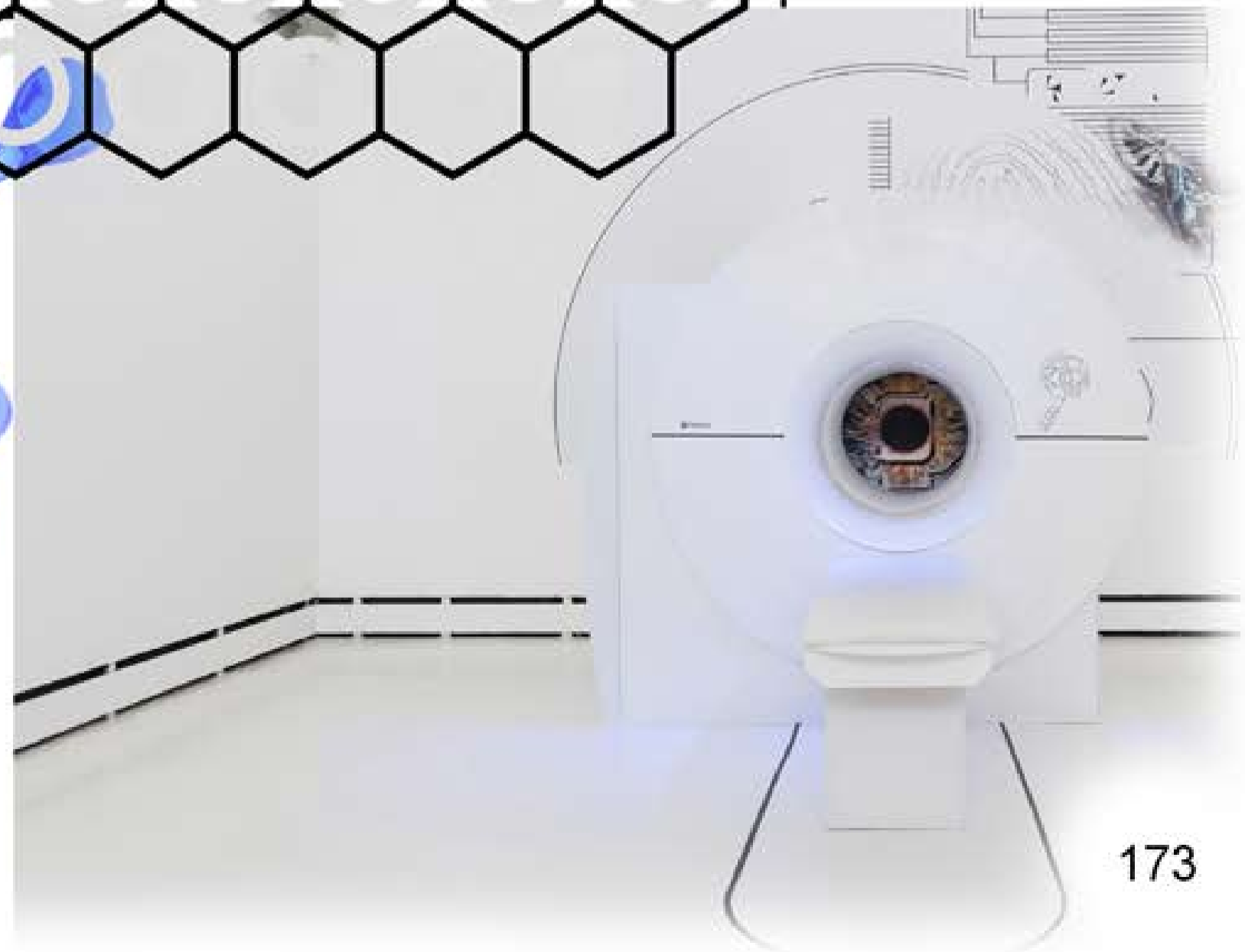
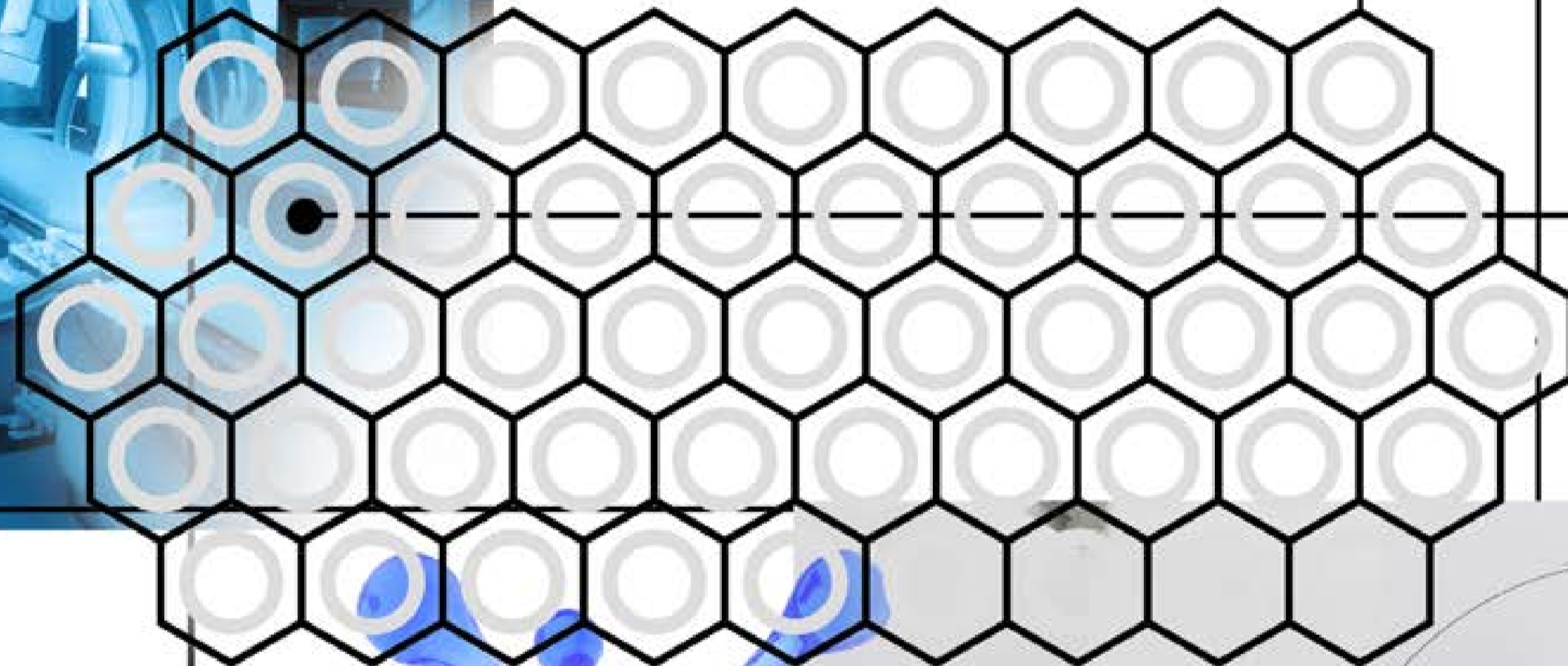
To write down these signs of the user as a list or manifesto is a reductive task, and one that would become instantly out-of-date with the development of quantum dialogues which are in constant change. This change at a

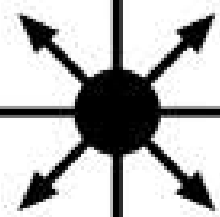
technological level is driven by capital rather than social values, and as such computational abilities are favoured over conscious aids in terms of progress. Human aspects focus on power over the machine rather than collaboration with it, exaggerated in glitch fetishisation, though as Parisi states 'celebrating error for its own sake is a form of mystification that can only lead to depoliticized, naive triumphalism' (Parisi, 2016). A more progressive approach is an acceptance of the human in dialogue with the machine through an awareness to the aid of computational labour and conscious creativity, made possible through the intrigue of the audience as a practitioner. The result is a mode of making very different to the traditional symbolism of popular culture, where the instant stimuli of the recognisable is exchanged for the contemplative mundanity of the familiar.

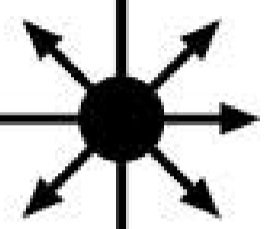
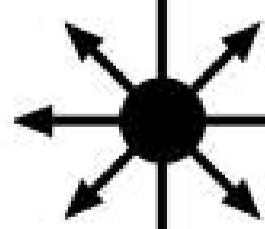
The images accompanying this text are an example of my enabled impetus as a user. Over the past few years I have taken these images studying a small palm in my room. Found in my phone's image archive, I don't know why I shot them, or kept them, only that I had an urge to, an impetus to produce from, rather than ponder over the event in reality. On reviewing them I find the labour of the machine to be their most interesting characteristic, in an awareness that every point of the image is not a reading from the subject as light, but an interpretation of a reading, which has been altered by the machine to suit its own quantum desires of programmed accuracy, one in which causality becomes a computed choice; choices that have become familiar through the nuances of their repetition. Sitting alongside

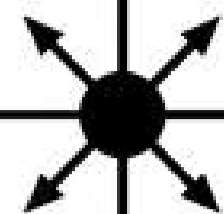
this, online, is a more definitive programme of works from Amy Dickson, who has been producing videos using her smartphone that highlight the quantum dialogue in ways that are subtle, elegant, poetic and contemplative. This is available here: [bit.ly/2EE9TfR](https://bit.ly/2EE9TfR) and features an additional short text outlining the works.

**Jamie Jenkinson (b. 1987, Lancaster, UK) says of his practice "I mainly make videos on my phone. This is the basis of my practice based PhD at Lancaster University (funded by the NWCDTP/AHRC), researching the development of materialist aesthetics in popular video technology; the framework of my teaching in Visual Communication at the Royal College of Art; and the inspiration for my writing and programming on artist film and video. My interests are in the accessibility of popular technology, facilitated by the digital, and how this impacts the reception and availability of art."**



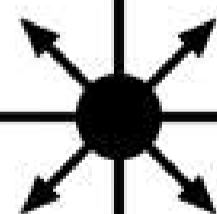






*Discussing the Automated Economy*

Ben Richards and Jack Thurland



**Ben Richards:** Technological advancement and political change historically go hand in hand. It is frequently stated in the media that automation is due to replace, and in some cases, are already replacing workers in various capacities. With this mass technological advancement building, it is sensible to also anticipate some form of political upheaval. Automation is frequently depicted as a large automaton working on an assembly line, but this is only a part of how automation is filtering into our economy. Automation is due to replace many jobs in the service sector, manufacturing sector, and administrative roles.

At this point, it is worth noting that this anxiety of a technology liberating many from wage work is, in fact, a constant throughout the history of capitalism. However, as economic cycles show, those who lose their job, to a machine especially, become surplus, and in a system where the majority must sell their labour to live this inevitably leads to severe financial insecurity. Historically, and in the present day, unemployment during economic recession predominantly effects women and racial minorities more so than it does white men.<sup>1</sup> However, all aspects of surplus population have a level of vulnerability, and is encapsulated by the economist Joan Robinson, saying, “the misery of being exploited by capitalists is nothing compared to the misery of not being exploited at all.”<sup>2</sup>

The discussion of an automated economy and the solution for humans in the post-work era often splinters in two directions: Universal Basic Income (UBI) and Education. The latter is suggesting that in anticipation of automation

the education system must provide the skills that people will inevitably need to assist and further develop automation. However, a dominant thought recently in art schools and their associated circles is for this to not just be a re-evaluation of education but to use this as an opportunity to radically alter political discourse. One of the minds behind the birth of Neoliberalism, Friedrich Hayek, suggested that political common sense is spread by 'Second Hand Dealers', referring to broadcasters, academics, writers, journalists amongst others. This is to suggest, that despite the recent disregard for expertise and academia by major political figures, the cultivating ground for an alternative political ideology comes from, in part, art schools, academia, and the educational system as a whole.

**Jack Thurland:** There are two immediately tempting responses to the problems that increasing automation pose to both the workforce and the education system. The first would be the Luddite Response, and the second would be to seek to compete with machines, by trying to make the human workforce more profitable (and hence more machine-like). Both of these, I would argue, are undesirable from a leftist perspective, and – regardless of political affiliations - doomed to failure.

The present situation is comparable to that of the Luddites in 1811. At the beginning of the First Machine Age, due to various technological advancements, factory workers found their wages plummeting and their jobs disappearing. In response, the Luddites waged a war on machines, travelling from factory to

factory across the north of England destroying the looms that had replaced them. Although the Luddites' concerns were undoubtedly well founded, their rebellion turned out to be both premature and untenable. More than a hundred of the Luddites were hanged for their crimes. Capitalism eventually provided new jobs for the disenfranchised factory workers, and the education system adapted to furnish workers with the necessary skills to make the next generation employable in these emergent labour markets. The Luddite's rebellion was quashed; progress – and capitalism – marched on.<sup>3</sup> Despite the Luddite's proto-Marxist contempt for capitalism, their rebellion against technological progress was essentially reactionary and conservative, and yet, one can still detect echoes of it in today's left-wing call to combat present day alienation and disenfranchisement through a return to supposedly more authentic, traditional modes of work and community rooted in the land, nation state, and localism.

The portrayal of the technological innovations themselves as the cause of mass unemployment obfuscates how structurally integral the replacement of workforces with machines is to the capitalist economic system and its eternal renewal – what are commonly known as its boom-and-bust cycles. The cyclical nature of capitalism was best conceptualized by Nikolai Kondratieff as Wave Theory. As the economist Paul Mason summarizes, according to wave theory, first there is a period of 'boom' or above-average growth, where accumulated capital rushes into productive sectors, triggered by the discovery of new markets and the rollout of new

technologies.<sup>4</sup> Throughout the boom period, writes Mason, 'the tendency to replace labour with machines operates', but is 'counterbalanced by the expanded scale of production, so overall profits rise', and 'the economy has no trouble absorbing new workers into the workforce'. However, when this golden age stalls, there is an attack on wages, redistribution projects like the welfare state come under strain, capital retreats into the financial sector, recessions become more frequent, leading to depressions, and a 'search begins for more radical new technologies, business models and new supplies of money'.<sup>5</sup>

However, this time, things are different. The 'fourth wave' has been disrupted, and the 'radical new technologies' that ought to provide capitalism with new markets and a means of regeneration, are not forthcoming. Capitalism's chief exponents prophesied that, as automation began to replace service jobs and low-skilled work, a new knowledge/information-based economy would rise, providing the new markets for capitalism's fifth 'wave'. However, as Mason writes, 'there is a growing body of evidence to suggest that information technology, far from creating a new and stable form of capitalism, is dissolving it: corroding market mechanisms, eroding property rights and destroying the old relationship between wages, work, and profit'.<sup>6</sup> The information economy is here, but it has failed to kick start the fabled fifth wave. The info-economy poses a problem for the capitalist system because it becomes possible to produce and distribute commodities (knowledge, information) for almost no cost.

The raw materials needed to produce, say, an article for publication online, are minimal – even factoring in the hardware it is written on (that is itself produced by robots on assembly lines at ever decreasing costs). The rise of the info-economy has led to the proliferation of 'bullshit jobs' – jobs that produce nothing of value (in the traditional sense of the term), and has spread panic among educators, politicians, and economists, frantic to find ways to make people more employable, assuage a lack of confidence in the system, and find a means of revitalizing capitalism.

In the face of this, we should resist the temptation to subordinate the education system to the demands of a decaying market in crisis. This impulse manifests itself in the neoliberal obsession with increasing productivity and efficiency, transforming the neoliberal subject into something more like a robot than a fallible human being (in fact, it poses questions as to what it means to be 'human' altogether, but that's another story). The managerial subject, the entrepreneur of the self, panoptical monitoring, and ever-increasing targets both at work and home, are all a product of a society which pits us against our machine replacements, in a competition to see who will be more profitable. Not only is this creating a mental-health pandemic, it's a competition that us humans are bound to lose. The devaluing of the humanities in the education system in recent years – because it's less profitable than science and technology – is, ironic, as it's the one sphere in which humans will always succeed over their mechanical counterparts.

Universal basic income would make all of this unnecessary. Although its exponents sometimes (either as a means of making it more palatable to its opponents, or from naivety) downplay its radicalism, the global uptake of UBI would be nothing short of a revolution, breaking the boom-and-bust cycles of capitalism once and for all, and liberating us all from work. The question then becomes; what sort of society do we want to live in, and who do we want to be, when work no longer forms the core of our identities, or provides us with a reason for getting up in the morning?

The education system will play a vital role in this. Instead of moulding more mechanical, efficient, profitable subjects, it ought to do the inverse and encourage us to pursue knowledge for its own sake, indulge in play, make art, music, philosophise, dream. All the things that were once prohibited and discouraged for being unprofitable suddenly become – once the necessity of employment disappears – the only things worthwhile doing. This would require a total reorientation of the education system which would – instead of equipping students with skills to make them more employable, encouraging them to produce artwork that is profitable, and innovate in the most profitable areas – have as its goal the production of post capitalist philosophes; subjects capable of deriving meaning and pleasure from a world without work, committed to truth and pleasure rather than efficiency and profitability.

**BR:** The 'seeking to compete with machines' is an interesting point. This statement is

apparent in the labour of the 21st century. Franco 'Bifo' Berardi best defines this by stating that labour in the 21st century is homogenised ergonomically and physically, as "we all sit in front of a screen and move our fingers across a keyboard." Of course, this does not define every wage-worker, but does speak for a large percentage. This form of labour, where the mind and the computer are the defining components that separate one labour from the next, is identified as cognitive labour. A large component of cognitive labour is the ability to self-automate, as the economy and social theorists Stefano Harney and Fred Moten articulate "To work today is to be asked, more and more, to do without thinking, to feel without emotion, [...] to connect without interruption."<sup>7</sup>

Statistically, in the last 65 years the major players in the global economy have progressively had less work hours.<sup>8</sup> However, this represents contact time, which by no means exhibits the out of hours work and certainly does not include the work mindset that inevitably continues during leisure time. This is the collateral effect of wage work in a capitalist society, as Harney and Moten suggest. We may well be progressively working less hours collectively (albeit a slow progress), but often the job description has encrypted within it the necessity to self-automate and essentially to live your work.

When workers are de-territorialised and their work life bleeds into their out-of-work life, the argument for automation and a post-work society becomes highly compelling. Post-work is not about a desire to be idle and free of responsibility, it is a collective desire to not be

bound to a job based on financial instability, to obtain an autonomy for ourselves that is not denied and diminished by a place of work. Work is often dichotomised with leisure, which is often misrepresented as idleness. Leisure is hobbies, exercise, socialising - it is not by any means just relaxing. These are the things we do with our limited agency outside of current forms of wage work.

To break away from this dichotomy of work and leisure it is not only a reformed economic system we need but a complete reevaluation of the thematic of economics. The feminist economist duo J.K. Gibson-Graham in 2006 claim that to begin forming an idea of post-capitalism we must develop a new economic language that is positioned outside of capitalism, and constructed not only in rejection of it but without it in mind all together.<sup>9</sup> However, in the years since the cultural left have cultivated new approaches to the inevitable demise of capitalism. Alex Williams and Nick Srnicek's 2013 Manifesto for Accelerationist Politics attempts to develop the foundations for how to formulate a post-capitalist society, how to demand an acceleration in the products of capitalism for leftist gain. As Antonio Negri notes in response, the manifesto suggests that the thresholds of development "are the reappropriation of fixed capital and the transformation of labor power; they consist of anthropologies, language, and activities."<sup>10</sup> This echoes the sentiment of Gibson-Graham, however instead of distinctly ostracising capitalism from the process between now and post-capitalism, accelerationism is utilising all that it offers for reappropriation: The 'post-' of

post-capitalism meaning less 'in spite of' and more 'in benefit of'. A collateral benefit of capitalism inevitably is the technological growth that has taken place, however, capitalism in its very nature is not an unconditional acceleration of technological prowess, but the stopcock between technological innovation and consumer spectators.

The crux here, as stated before, is that the 'radical new technologies' that should have rejuvenated a stagnant period of capitalism have simply not happened, and more importantly may still not happen.

The critical responses to automation recently generally fall in to three categories, as Peter Frase notes in *Four Futures: Life After Capitalism*. Firstly, some argue that new technology is credited with too much possibility and that we are in fact nowhere near any form of post-work society. Secondly, there are those in mainstream economics who refers to past moments of rapid productivity growth and note that new forms of work have been created, and for that reason alone this time should be no different. Thirdly, there those who consider speculation of a utopian automated economy to simply be a distraction from more important political tasks such as improved wages and work place conditions, as Frase suggests.<sup>11</sup>

The topic of automation as a distraction of more pressing political action initially seems relatively plausible, and in some cases, may well be true. Since the 2008 recession it could be argued that government policy has failed to focus on creating jobs, and regardless of the true reason for unemployment it is quite a

plausible argument that there aren't enough jobs because robots are doing them. Frase notes that with this viewpoint, the worries about robots are "counter-factual (because productivity growth is low) and politically reactionary."<sup>12</sup> Is it possible that automation is simply the new national excuse for austerity? The more it is discussed, the more we are not discussing, as said before, improved wages and work place conditions.

With this in mind, I'd like to suggest that the discussion of an automated economy does not necessarily focus on what technology may come but what technology we already have. As Williams and Srnicek questioned: "Who amongst us fully recognises what untapped potential await in the technology which has already been developed?"<sup>13</sup>

**JT:** Firstly, lets consider this hesitancy regarding what could be called the accelerationist approach. There is nothing to stop the ideological apparatus of capitalism from appropriating technological progress for its own ends. Pursuing technological progress for its own sake in the hope that it will bring about the final crisis and hence an end to capitalism is naïve; capitalism thrives on crises; it creates them. Technological progress itself won't bring about its end, it may as likely (as in the 19th century, and later, in the 1950s), be the engine which instigates its next, more advanced, stage.

The moral panic surrounding full-automation and the prospect of post-work societies is, as you say, overwrought and certainly distracts from – or can be an excuse for – neoliberal austerity policies. As the example of the

Luddites show, these moral panics are commonplace under the yoke of capitalist progress, and more often than not from the capitalists themselves – for instance, the standard conservative complaint that social media is 'corrupting youth'. What both the neoconservative and 'leftist' fears of automation conceal is the incapability – or unwillingness – to imagine an alternative world. The leftists fear that technology will be used to nefarious ends, that automation will deprive workers of their jobs and hence their identity, dignity, and rights, without imagining that there is more to human identity and dignity than work, or daring to imagine what subjects could offer society in exchange for rights other than their capacity to generate profit. In short, that the machine will be better at being human than humans. The conservatives, however, fear that technological advancements lead to debasement and degeneration; the gradual erosion of our instinctive self-interest and competitive spirit – it makes us lazy, complacent, and unproductive. The machines – supposedly – bring out our worst qualities. In both cases, it is not the machines these reactionaries really fear, but our own humanity. The machines simply create the conditions in which a confrontation with our own fearsome humanity becomes unavoidable.

I do not intend, by all this, to suggest we usher in a world of unbridled consumerist play, but rather welcome, and nurture the prospect of a new idea, a new organizing principle other than work, profit, or self-interest to guide us, and with it a new conception of freedom. As Alain Badiou puts it, we are living in a time of crisis, in a society that is 'shaking off and

destroying the last vestiges of tradition. And we don't really know what the positive side of this destruction or negation is. We know that it unquestionably leads to a kind of freedom. But that freedom is above all the absence of certain taboos. It is a negative freedom condemned to the constant variation of commodities, fashions, and opinions. It sets no direction for a new idea of the true life [...] Determining what a creative, positive freedom might be will be the task of the new world to come'.<sup>14</sup>

**BR:** The reactions of to the prospect of automation by both the left and the right does suggest there is a genuine concern for its effect, and despite perhaps being used sometimes as a distraction, is nonetheless central to party policies. The left is really stealing a march on the right in the discussion of automation, and are coming up with some more interesting policy responses, mainly UBI. The Conservative are however attempting to address the issue too - at the Budget, Hammond announced a national retraining scheme in partnership with the Trades Union Congress and the Confederation of British Industry.<sup>15</sup> However, in retraining, we continue to uphold capitalist ideals, and fail to utilise this economic shift to progress beyond the confinements of the current economic system.

At this point, I want to return to the topic of the service industry and potential outcomes from automation. Having now considered modern forms of work, and modern anxieties towards automation, we must consider an effect of this possible future. In the service industry, which is generally considered work providing a

product or a service to a customer, the prospect of automation suggests the likelihood that many of these currently human roles will be made non-human. However, this does not necessarily mean mass unemployment, another potential outcome to mass automation in the service industry is an increase in those working in what Paul Mason calls the 'Human Service Sector'. These are services that are innately human and highly difficult to replicate with technology, but encourages an economy that is seemingly in revolt against technological progress.

Sex work in our current economic system is an example of this innately human service, and exemplifies unique abilities to humans that are already utilised. In recent years stripping especially has become more and more popular for young women as a source of income and exhibits a shift in societal stigmas on the profession, and the industry on the whole. This movement, despite not being in immediate relation to automation, exhibits the effect an increase of workers in an industry can have. However, a paradox for this aspect of the 'human service sector', is the advent of sex dolls implemented with artificial intelligence (AI). Already in Barcelona there is a brothel dedicated to sex dolls alone. The artist Bella Vogue, who works in the sex industry, on the subject of sex dolls notes that "not only does it have the possibility to effect our work but the whole basis of having a sex doll can give clients a specific idea of treatment of sex workers" and goes on to say "Sex doll brothels force us to question how the clients of these recognise consent when being with a sex worker." So, it would seem even in inherently

human work, there is the possibility for automation and artificial intelligence to infiltrate and bring with it acts of dehumanisation. Of course, this partially feeds in to the hysteria of the overarching economic discussion of 'robots take jobs' and in fact is likely to be a small influence on the overall sex industry. As Bella states "what we do is unique to a human, we offer comfort and intimacy which is something they cannot offer" and despite sex dolls offering some form of service, it is by no means equivalent to human intimacy. Bella also points out that AI in the workplace being exploited for alternative distractions and motives is also apparent in response to sex work, suggesting that despite the clear importance of automation in the future of our economy is being used as an excuse to not only distract, but to strengthen anti-pornography and anti-sex work.<sup>16</sup>

The increase in 'human service sector' workers is one eventuality of automation, and is an aspect of the current capitalist society that is poorly regulated in comparison with other industries. Of course, this leaves workers of the industry to self-organise with collectives and unions, which in itself is a form of decentralisation of power in the economy. Of course, the human service sector has a multitude of possible roles within it; there is an awful lot of human ability that is unique to humans, and can be applied to human desire and needs.

Automation, as this essay shows, causes a milieu of economic anxieties and hope. However, the anxieties are less about the potential of automation but the way in which our economy is structured in response to it.

This is of course an issue of political governance and how the innovations of automation are created and implemented. Whether full-automation is coupled with UBI, or a rigid national training service, or an increase in the human service sector; what we will see is a drastic political shift, but what is proven by the ongoing discussion of automation is that we have not seen an economic wave quite like this, and can only rely on previous evidence of economic waves to a certain extent. Full-automation simultaneously manages to revolutionise and deconstruct economics, and the way in which it is reconstructed is paramount to our futurity.

#### (Endnotes)

1 This is further discussed by Ash Sarkar on the topic of the racial demographic of class in modern Britain here: <http://www.independent.co.uk/voices/working-class-culture-race-not-as-white-as-you-would-like-to-think-a7903421.html>

2 Joan Robinson, *Economic Philosophy* (Harmondsworth: Penguin, 1964), p.46.

3 For my account of the Luddites' rebellion I rely here on *Utopia for Realists*, by Rutger Bregamn pp. 192-200.

4 Paul Mason, *Postcapitalism: A Guide to Our Future* (Allen Lane: Penguin, 2015) p 72.

5 *Ibid.* pp. 72-73.

6 *Ibid.* p. 112.

7 Stefano Harney and Fred Moten, *The Undercommons: Fugitive Planning and Black Study* (Brooklyn, NY: Autonomedia, 2013) p.87

8 Carys Roberts, Mathew Lawrence, and Loren King, *Managing automation: Employment, inequality and ethics in the digital age.* (IPPR, 2017), <https://www.ippr.org/publications/managing-automation>, p.10

9 J.K.Gibson-Graham, *A Postcapitalist Politics* (Minneapolis: University of Minnesota Press, 2006) p.56.

10 Antonio Negri, 'Some Reflections on the #Accelerate Manifesto', IN R. Mackay and A. Avanessian, *#Accelerate: The Accelerationist Reader* (Falmouth: Urbanomics Media Ltd, 2014) pp.363 - p.379.

11 Peter Frase, *Four Futures: Life after Capitalism* (London: Verso, 2016) p.10.

12 *ibid.* p.12.

13 Alex Williams and Nick Srnicek, '#Accelerate: Manifesto for an Accelerationist Politics' IN R. Mackay and A. Avanessian, *#Accelerate: The Accelerationist Reader* (Falmouth: Urbanomics Media Ltd, 2014) pp.347 - 363.

14 Alain Badiou, *The True Life* (Cambridge: Polity Press, 2017) pp.28-29.

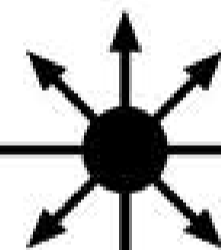
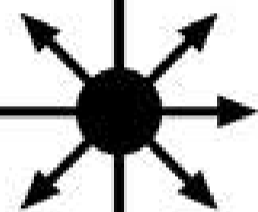
15 Thanks to Richard Partington, Economic Correspondent for The Guardian, for pointing this out to me.

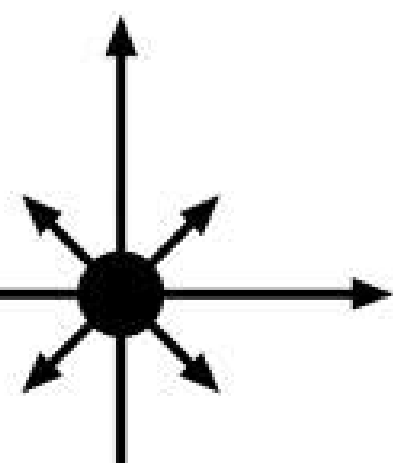
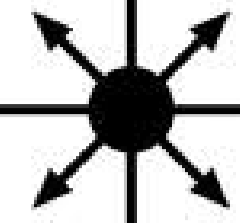
16 Thanks to Bella Vogue for their engaging discussion on the topic and allowing a clear

incite to the sex industry's relationship with economics and politics.

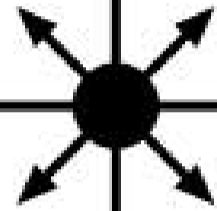
**Ben Richards (b. 1994, Plymouth, UK) is a writer based on the south coast of the UK. Richards graduated from the University of Edinburgh on the Contemporary Art Theory MA course in 2016 and has written for Visual Culture in Britain, Sound Thought Festival, and the music review site Lonely Table, focusing on the relationship between personal politics and personal technology, forms of collaboration online and IRL, the convergence of music criticism and caritas theory, and other topics within visual and digital culture.**

**Jack Thurland (b. 1991, North Yorkshire, UK) is a writer and theorist based in Leeds. Thurland graduated from the University of Leeds on the Critical Cultural Theory MA course in 2016 and has interests in Lacanian Psychoanalysis and Marxist thought, particularly where the two disciplines intersect. He's written extensively in response to Slavoj Žižek and Julia Kristeva, and in critique of Virginia Woolf and Emily Dickinson.**









*Random Darknet Shopper*

!Mediengruppe Bitnik

Random Darknet Shopper is an automated online shopping bot which operated from within three exhibition spaces in three different countries between 2014 and 2016. With a budget of \$100 in bitcoins per week, the bot went shopping on the deep web, where it randomly chose and purchased one item per week and had it delivered directly to the exhibition space.

Hidden online markets exemplify how the Internet in general and the Darknets most notably are helping to increasingly blur the lines of national legal dictates. Being global, these markets connect diverse jurisdictions, thus questioning the notions of legality and producing a vast grey zone of goods available virtually everywhere. In its first run from October 2014 to January 2015, Random Darknet Shopper bought 12 items, which were displayed at Kunst Halle Sankt Gallen. The sixth order was a pack of ten yellow ecstasy pills from Germany, which duly arrived and were displayed within the exhibition space.

'Can a robot, or a piece of software, be jailed if it commits a crime? Where does legal culpability lie if code is criminal by design or default?', asked Mike Power in an article about the Random Darknet Shopper published in the Guardian.

These global questions were then negotiated locally in the exhibition space: on the morning of 12 January, the day after the three-month exhibition closed, the public prosecutor's office seized the Random Darknet Shopper. The seizure caused a sensation around the world because for the first time a robot had been arrested for an illegal act. At the same time,

however, it remained unclear who was responsible for the actions of the bot. The bot itself, the artists, or the exhibition space and its staff?

In the order for withdrawal of prosecution the public prosecutor stated that the overwhelming public interest in the questions raised by Random Darknet Shopper indeed justified the possession and exhibition of the drugs as artefacts. The artists as well as Random Darknet Shopper were cleared of all charges.

**!Mediengruppe Bitnik (read - the not mediengruppe bitnik) live and work in Zurich/London. They are contemporary artists working on and with the Internet. Their practice expands from the digital to affect physical spaces, often intentionally applying loss of control to challenge established structures and mechanisms. !Mediengruppe Bitniks works formulate fundamental questions concerning contemporary issues.**

**!Mediengruppe Bitnik are the artists Carmen Weisskopf and Domagoj Smoljo. Their accomplices are the London filmmaker and researcher Adnan Hadzi and the reporter Daniel Ryser.**



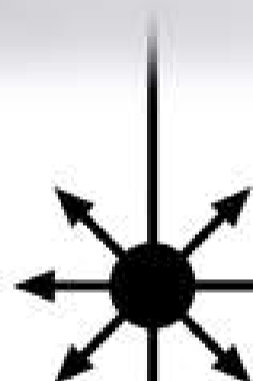
**!Mediengruppe Bitnik: 'Random Darknet Shopper', 2014 – 2016 // Courtesy of the artist**



0.25974025  
BITCOINS



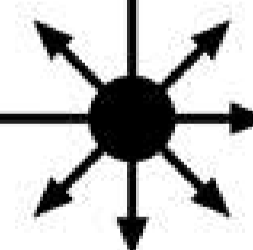
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BITCOINS



0.22061418  
BITCOINS



0.09090909  
BITCOINS



RANDOM

# DARKNET

SHOPPER

DATE: 12.11.2014  
ITEM NO: 8

OPENING AGORA SHOP - <http://agorahooawayyfoe.onion>  
CONNECTING VIA TOR (this might take a while)

LOGIN  
INEJECTING COOKIE

BTC = 381.14 \$  
WALLET: 0.35597947 BTC (135.678015196 \$)

BUY SOMETHING RANDOM  
BUDGET: 100 \$ | 0.26237878239 BTC

GET ALL CATEGORIES  
TOTAL CATEGORIES: 12

CHOOSE RANDOM CATEGORY: Electronics  
TOTAL ITEMS IN CATEGORY: 100+

GETTING ALL ITEMS FROM CATEGORY  
CATEGORY: Electronics

CHOOSING RANDOM ITEM WITHIN BUDGET

GOT A WINNER!

WINNER: Cap Camcorder DVR DVR+ Remote control - SR BEST SELLER!

ITEM:	Cap Camcorder DVR DVR+ Remote control
CATEGORY:	Electronics
PRICE USD:	\$ 98.997398885
PRICE BTC:	0.25974025 BTC
VENDOR:	optiman
VENDOR RATING:	4.988/5, 500-1000 deals
FROM:	USA
TO:	Worldwide
URL:	<a href="http://agorahooawayyfoe.onion/p/lwblX8wmg">http://agorahooawayyfoe.onion/p/lwblX8wmg</a>

DESCRIPTION:

Mini DV DVR Video Cap Camera Recorder MP3/Bluetooth. It has the function of taking photos and record, easy and simple operate, easy to carry, It is a practical tool which widely used in the living security, tourism and other essential field, great help for you!

Have you ever wondered how would it be if you could record your eyesight? Memories, meetings ,scams, parties, trips, etc'.

Have you ever wanted to record something without anyone knows or suspects?

Have you ever regret that you couldn't record something important or special?

Use the hidden camera cap with the remote control, its easy to use and very useful.

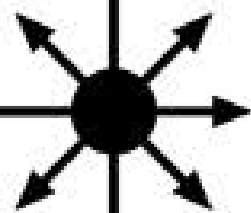
Once, I went to a show wearing the cap, taking pics was forbidden and I recorded it all !

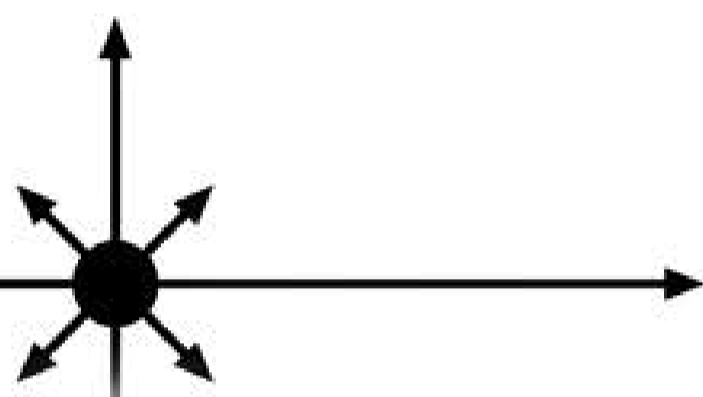
I edited it and sold it :) and even if taking pics was allowed its easier not to hold anything, just enjoy the moment! and had it recorded anyway!

We do not ship this item to UK Germany Austria and Australia.  
Feel free to ask any question

Regards,  
Optiman

ITEM	PRICE BTC	PRICE \$
Cap Camcorder DVR DVR+ Remote control	0.259 BTC	99.0 \$





*Nakamoto (The Proof)*

Émilie Brout and Maxime Marion

Satoshi Nakamoto is the creator of Bitcoin, a now infamous revolutionary and unfalsifiable payment system for performing online transactions anonymously. This virtual currency is widely used on darknets, networks guaranteeing anonymity which have a bad reputation, especially because of the cybercriminal activities they facilitate. From his first public message until his disappearance on December 12, 2010, Nakamoto has become a true contemporary myth that presents a double affront to our modern society: he was both able to create a revolutionary payment system that allows bypassing trusted third parties like banks and to totally conceal his true identity. Indeed, although many, including magazines like Newsweek and Wired, have tried to discover the identity of Nakamoto, no one has been successful to date.

Only a few minds in the world have the capacity to create such a technology. The public bitcoin transaction log shows that Nakamoto's known addresses contain over one million bitcoins, so his wealth is now estimated to be worth eleven billion dollars. In addition to that, when the bitcoin technology was finalized in 2010, he transferred the source code to several prominent members of the bitcoin community – and then just completely disappeared: all the necessary elements to create a true modern myth.

The inventor of hyperlink, Ted Nelson, believed that Nakamoto was Shinichi Mochizuki. Mochizuki has resolved the ABC conjecture, an old and famous math problem. When he did that, he nonchalantly published the results and moved over, just like Nakamoto did. But if he is a genius in mathematics, he

has no experience in cryptology and coding. Mochizuki always denied it and the fact that he's Japanese is maybe a bit too easy. A lot of people have tried to analyse Satoshi's every move, but without success. He has always used different IP addresses and secured emails. Some tried to analyse his way of writing emails, forum posts and even his code. But if the main theory is that he has had a British education, it looks like he used different English styles, so it's impossible to define his true nationality. All they found is that code isn't his best skill. Some tried to analyse the rhythm of the publishing of his posts and the times when he sent emails in order to define a time zone and locate him more precisely. But nobody found a convincing pattern. So they started to look to credible and respected specialists in the field of mathematics and cryptology. A famous suspect in 2014 was Satoshi Dorian Nakamoto. He was harassed by the press just because he has the same name after a journalist from Newsweek found him in a telephone book. But Satoshi Nakamoto in Japan is just like John Smith in the U.S.A., and Dorian is a simple engineer who loves model trains. There was another suspect in late 2015: Craig Wright. Wired and Gizmodo received some information suggesting that the businessman could have been involved in the creation of Bitcoin with a coder. But Wright has invested large amounts of money in Bitcoin, and it really looks like it just was a long-planned hoax. Some even think that the NSA is behind Bitcoin. Others think that Bitcoin was born from a collaboration between four big Asian companies (Samsung, Toshiba, Nakamichi, Motorola). But it looks like

a joke, like most of the other speculations. Nakamoto still remains inaccessible.

So we decided to produce the evidence of the existence of Satoshi using the same technology and opaque social sphere he contributed to create: a Japanese passport containing all the information we could collect, ordered on the darknet and paid in bitcoins – a kind of nonsensical portrait, a physical object attesting to the reality of what he created.

We decided to immerse ourselves into the darknet – thanks to Nakamoto, today anyone can buy a forged passport. We did some searching to find forgers able to produce a credible Japanese passport and finally found this onion address: <http://fakepasvv3holddd.onion>. The forgers are probably based in Cambodia, and offer high quality passports from a lot of different countries. Passports usually have over a hundred safety features, and they were able to offer almost thirty of them. We did some research on different complaint websites dedicated to illegal products to be sure that they were not scammers. But we didn't find anything, so we felt more confident.

On May 5, 2014, we created an account on a high security Israeli email service and contacted them via their address [fakepassport@safemail.net](mailto:fakepassport@safemail.net).

The next day, we received an answer with all the instructions. They asked for some information, plus a 25% advance payment. The total price was 500 €. We paid a deposit of 0.328 BTC (125 € depending on the exchange rate on that date) on the Bitcoin



at this range of time. Other people found out this birthdate and discussed it on reddit.com. Are they random numbers or do they have a secret meaning? Some argue that April 5 is a reference to Roosevelt's decision in 1933 to forbid the ownership of Gold by U.S. Citizens. And 1975 is the year when the ownership of Gold was authorized again for mere mortals.

The date of issue of the passport is related to the date of registration of the website bitcoin.org, Nakamoto's very first public action, several months before his first public message.

And finally, the MRZ number of the passport was generated with an online tool found on highprogrammer.com and includes a sequence present in the first created block of bitcoins, also called the genesis block.

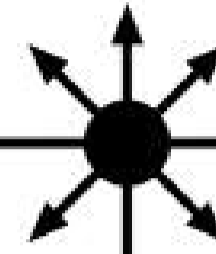
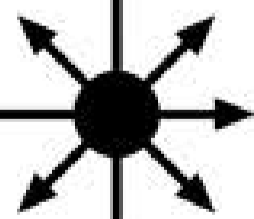
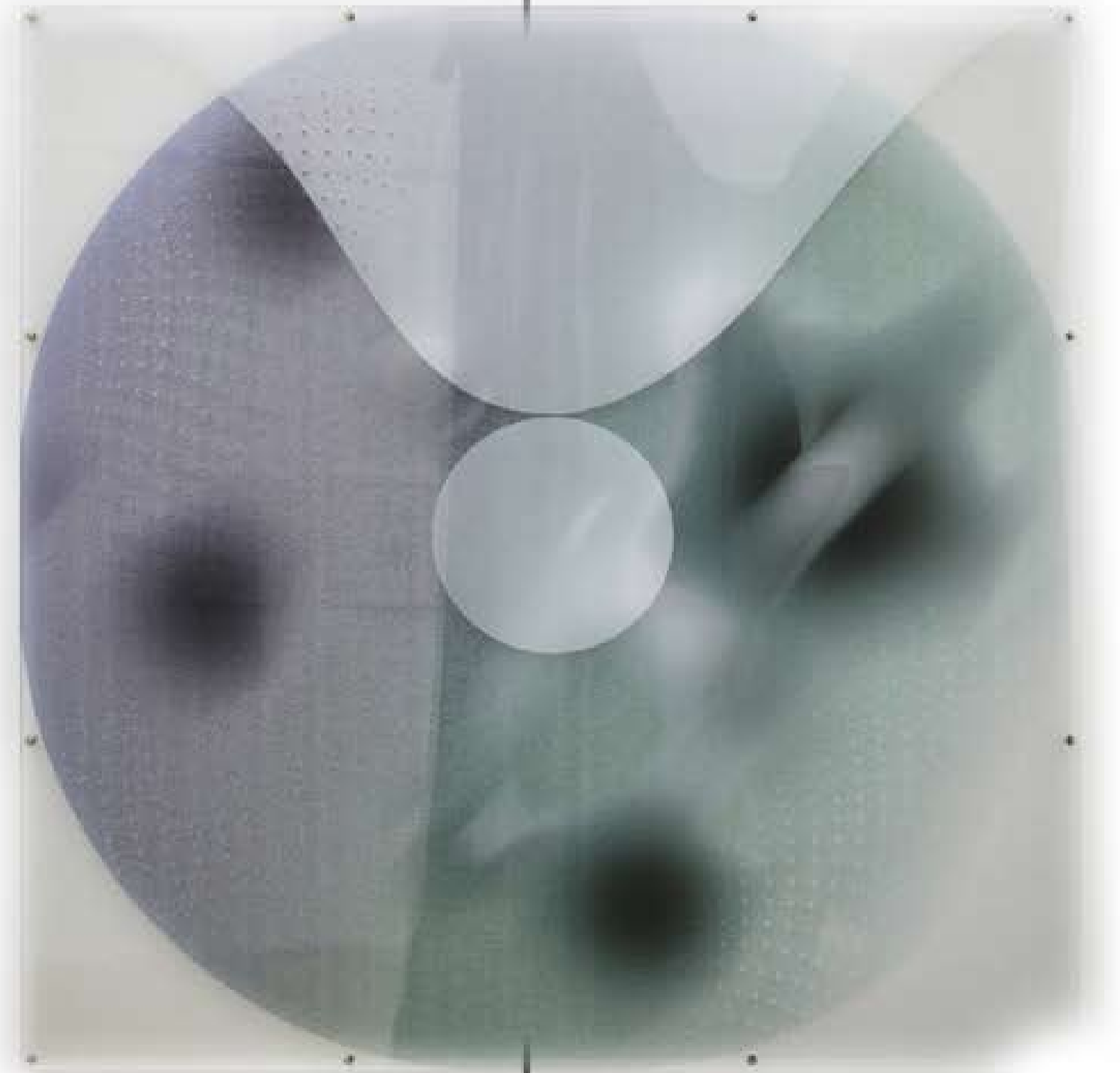
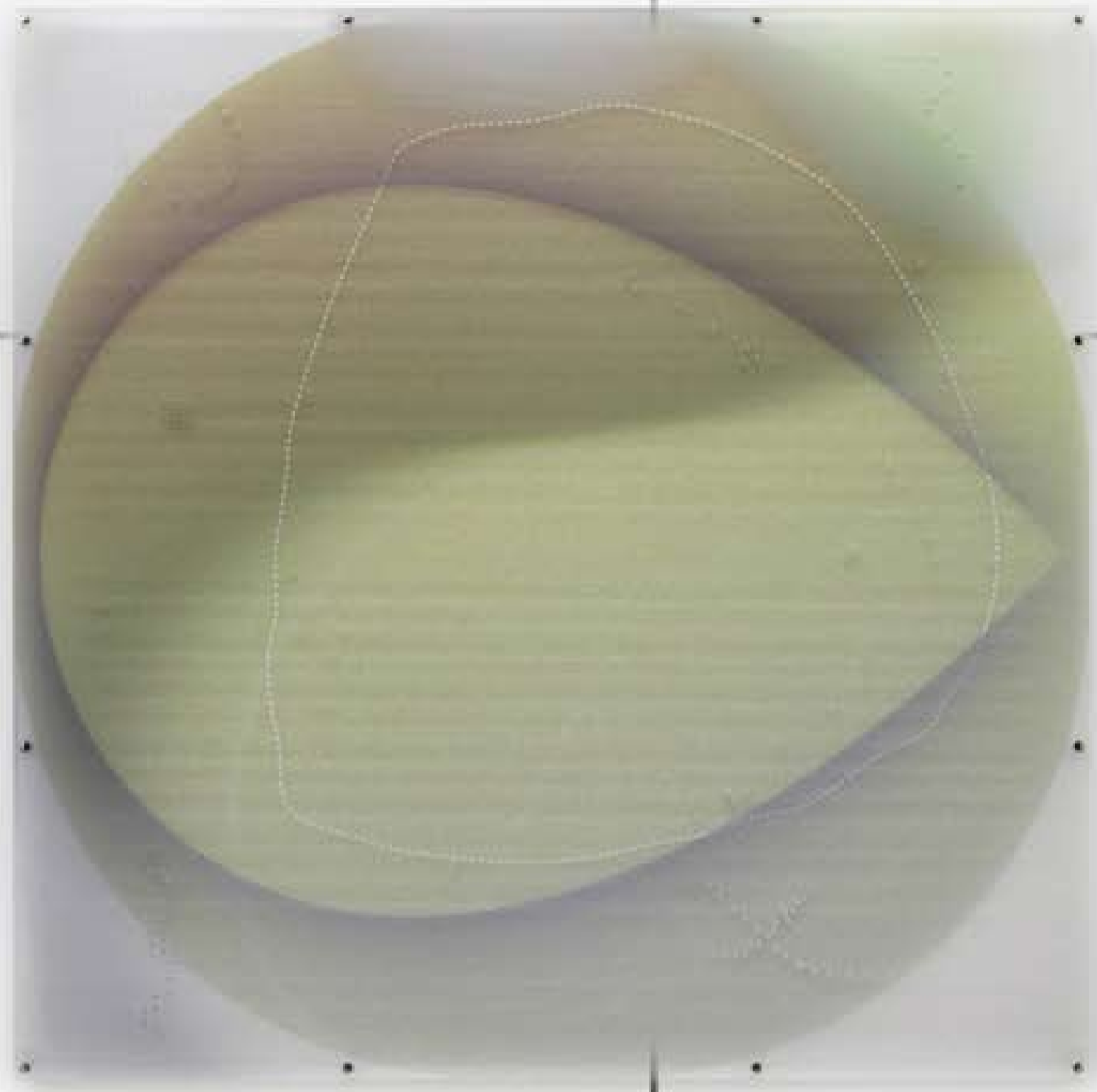
After this detailed examination, on June 5, we decided to pay the remaining balance of 0.785 BTC (375 € depending on the exchange rate on that date) to the counterfeiter's bitcoin account to receive the passport. We think that it was produced in Thailand, as it is close to Cambodia and famous for its counterfeit industry.

Two days later, the forgers told us that they hid the passport in a book and used a third-party mailing service based in Romania in order to protect both of our identities. We still haven't received anything. According to our information, the document is still in transit to the Romanian border...

So, the scanned image remains the only evidence of its existence. Again, it is like it was

impossible to bring Nakamoto out of the digital world.

**Émilie Brout and Maxime Marion (b. 1984 and 1982, Lorraine, France) studied at the École Nationale Supérieure d'Art et de Design de Nancy, the Ecole Supérieure d'Art d'Aix en Provence and the Ecole Nationale Supérieure des Arts Décoratifs de Paris. Since 2008 they have been collaborating on new media works that widely use content appropriated from the web and that explore the relationship between the digital and physical. Their work was included in the Moscow Biennale; ADIAF Triennale, Villeurbanne (2016) and numerous group exhibitions and screenings including those at OCAT Shenzhen (2016), Seongnam Art Center (2015) and Palais de Tokyo, Paris (2014). They have had solo exhibitions at 22,48m2, Paris (2013, 2015, 2017). They live and work in Paris.**

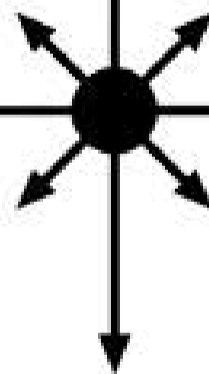






*Smarter Child*

Jonny Tanna



It took me a while to force myself out of bed, I realised it was 10:30am, which was very late in my books, and forced myself to get out. It was difficult, but suddenly found myself on the tube to Elephant & Castle. I got off and was in the airport, ready to meet him, as well as purchase some chocolate smokes from the duty free, I also wanted to grab some apple jacks, but they were all out. The sales assistants in the duty free began grabbing me, doing their best to pull me back in. 'Try to buy some chocolate sir' one of the assistants said, so I figured if I say what they want to hear then they'll let me go. I said 'Ok, let me try', pushing my hand towards the chocolate bars, putting my left hand on my right wrist, trying to pull it toward me 'I'm trying ...' I said with feigned struggle '... but I just can't seem to reach them, so sorry'. The assistants froze to register my response and simply said 'Have a nice day sir'. I was finally free of the duty free and two hours had passed. 'I'll be late to meet him' I thought to myself, as I made my way on the electronic walkway to the monorail platforms. Above there were glass ceilings where I could see the palm trees and the wild capuchins climbing around on the branches, shaking off the fruit before scurrying over to collect their prize. Below the tree was, from what I could tell, a Dodo bird.

I exited the walkway and finally saw him in the distance. I ran over and inquired 'Are you, little Nathan?' the boy looked back at me and smiled. He was wearing a light blue polo shirt, khakis and a baseball cap that said '**Harlesden**'. I gleamed with pride as I saw the cap. I walked with Nathan hand in hand, trying to converse, but he mostly responded with a series of smiles or thumbs up or thumbs

down. It's a learning curve I suppose, they said he wouldn't be able to generate responses immediately. We walked through the airport and waited for the rest by the departure lounge. Nathan noticed an interactive LED panel, staring at it for a while. 'Don't worry boy', I said 'it's fine, just don't stray too far' as I allowed Nathan to explore his fascination. He went over to the LED panel and began to connect to somebody's phone, looking through their messages. He swiped away their messages and deleted the conversation, which promptly appeared on my phone. It was a chat group called 'Omar's Will'. Without my assistance, messages from yours truly would appear on my phone screen from another member called 'Andrew'. Andrew wrote 'Omar has died', causing me to grow with despair and grief. We went to Omar's house and he lay there in a potato sack, flies circling the body. His mother said, 'It won't be too long until we'll bring him back'. We then watched the funeral on the television before eating some pie. Nathan refused by shaking his head. We then went for a long walk to The Empire in Leicester Square, traversing through the many long streets of Piccadilly where most of the buildings had walkways much like you'd find near the Ritz. Once we arrived we entered through the back entrance, sitting on the electronic mono cars that were lined up to take us through the gilded Victorian doors. Nathan pointed towards the eleventh door, which was quite a while away, but I was eager to go through the first one I could find. However, I decided that since it was Nathan's first day with me, I'd be kind. We went through the eleventh door and I was greeted enthusiastically 'What a charming young lad you have there Mr

Tanna' said the jolly Celtic doorman 'How old is he?' '25' I responded with glee 'Yes, 25. 25 Raymond, and soon I'll teach him snooker'. Raymond smiled as he bowed and gestured us through. We entered the main hall of the Casino and Nathan had a coupon for some free chips. We went to the cash desk and were given three black leather wallets containing five purple & gold chips. This equated to roughly £800. So, we of course hit the tables and I put a leather wallet on the neighbour of '3' which was next to '25' on this table and 4 chips on black. I lost the black chips but the '25' came in and I won £1500 in chips. I decided to walk away before I pissed it away. Christopher was hungry at this point so I took him to the dining room, which was pretty large but unlike the stereotypical restaurant in most casinos. This was more like a posh canteen, with sharing tables seating you with up to 23 strangers. We'd come nice and early so the tables were completely empty. Abigail, my casino host came by and congratulated me on my win and little Christopher, informing us that unfortunately the food wouldn't be available for another 45 minutes. I apologised to Christopher, but he didn't have any expression, sitting there smiling aimlessly. He then immediately got up and walked away. I tried to follow but lost him in the sea of people, hungry for food, filling into the canteen. I decided to return to the tables, confident that Nathan would return. I walked into the auditorium and watched the film, the room was large and open, with chairs spread around and the blue light of the projector screen filling the room. Peter, my security guard, came in 'Mr Tanna, we found Christopher'.

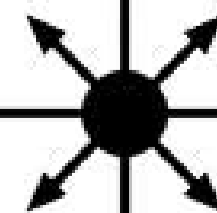
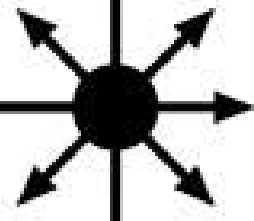
We stopped by that unnamed South London gallery Oscar took me to previously, where the floors spiral into a cylinder set of steps, and found a holographic pool with a child floating in it, face down.

We then went to the back of the airport and approached the interactive LED panel Nathan had used before. We waited in anticipation as the browser loaded. We then reached a GUI akin to Dungeon Master, a pseudo role playing game in first person perspective. The screen featured the duty-free section of the airport with the same LED panel we were staring at and the 'Omar's Will' Online chat room. Below was an avatar for Christopher, still adorned with his Harlesden hat. Below was a text box for the character you were role playing as, and it was at this point we realised that Nathan was no longer in his physical form but in his true form. On the screen appeared the words 'Dad, come back'. It was at this point I turned and said to Pete 'I'm so glad he finally came to terms with it'.

**Jonny Tanna (b. 1980, London, UK) is a London based artist and curator whose work explores the intersterility of class, race and generation. His practice is essentially a visual negotiation of a society perceived to be displaced of good manners, courtesy and kindness. Taking a stance as a confrontational interrogator of culture, interventions are interspersed throughout a practice which provokes an investigation into cognitive bias and the mercenary approaches prevailing in society and its visual outpourings.**

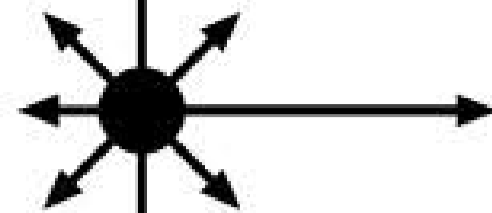


**Jonny Tanner: 'Smarter Child', 2018 //  
Courtesy of the artist**



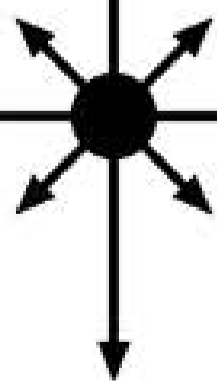






*Containing The Future*

An interview with Joachim Coucke  
conducted by Bob Bicknell-Knight



*Joachim Coucke works with installation and sculptures that investigate our broken relationship between the physical and digital realm. Developing a body of works that envision a rather uneasy future, Coucke is raising attention to the aspect of ethical and moral debates that arise from current technofied euphemisms. By using an ever lasting supply of outdated computer hardware, his works unveil an anachronistic bizarreness which is usually unregarded in our not yet fully digitalized and immaterial civilization. All that is fluid and ethereal, allowing information to flow, has indeed a physical equivalent. When an algorithmized life tries more and more to detach sensation from one's body, these accumulations of technological waste, seem unreal, but indeed are and ever growing.*

**Bob Bicknell-Knight:** Your current body of work reflects on the future whilst residing in the past. In a recent duo show with Nicolas Pelzer, *Tomorrow is Obsolete*, you presented a series of assemblages of items, from a book by Jaron Lanier concerning money and power in the digital age to a number of plastic see through masks, all collated in padlocked crates. What inspired these recent works, fittingly titled *Containing The Future*?

**Joachim Coucke:** The series of wall pieces *Containing The Future* was inspired by the recent developments in artificial intelligence, the power structures of social media and the devices surrounding us. For the aesthetics I was thinking about shrines, altar pieces and memento mori. The works are like portraits, depicting a state of mind. One which can go very different ways, while a lot of people are euphoric about current technological

developments I want to focus more on a downside. Not that I want to be sceptic but I think people should be more aware of the devices and apps we use as they're designed in very smart ways. Which doesn't mean that these things serve us well. The book of Jaron Lanier often returns in this series, Lanier is an intelligent person and the book is super interesting. Would recommend everyone to read it but in the works the title of the book functions as a statement. Who owns your future?

**BBK:** I like the idea of these works being built as shrines, attempting to capture the essence of the 'now', taking the famous Nam Jun Paik quote 'The future is now' in an incredibly literal sense. When you're talking about social media and how apps are designed, I assume you're essentially talking about the algorithms that are operating below the surface of the screen? Do you hope to educate people with these works, making them more aware of how the systems that they operate within are functioning? Who does own our future, companies like Google and Facebook who choose what you see on a daily basis when scrolling through your feed? Do you think there's any escape from the algorithms that are subtly controlling and tweaking your life?

**JC:** Indeed, the algorithms Facebook, Google, Amazon and others use are very intelligent and powerful. What I find interesting is that the companies try to create the illusion of an endless source of goods and information. And that we are in control of what we see and what we buy. For me I always find it striking that when I do research on something or want to buy a product a whole mechanism gets



**Joachim Coucke: 'Containing the future Avatar', 2017, mixed media // Courtesy of the artist**

activated to seduce us in sometimes bold or subtle ways. So I think people need to realize that you're not alone with the search box on your screen, behind this tool engineers are working for you to steer you towards certain products or services. So yes, creating an awareness is one of my goals I want to achieve with my work. But I don't want to judge as I'm a part of this system as well. But if you're aware you can bypass these things and see through them and try to spend your time online in a better way. If so I'm pretty sure the apps will follow but it will take time. One example was how Facebook twisted the downfall of the time on site by its users into a clever marketing trick saying it's better that we spent less time on there meaning that their algorithms are being more efficient now in showing what we really want to see. But what do we want really want to see?

**BBK:** I assume advertisers would make the potentially flawed argument that the use of algorithms is a step forward in providing services and products that consumers have shown an interest in, less malicious and more helpful. When there is so much to see in the digital space, how else are we able to sift through the sheer amount of content to discover what's deemed truly 'worthwhile'?

**JC:** Good question, I'm always surprised that so many people use their social media feed as their premier source to what's happening in the world. I always try to open things up by using different search engines. From an artist (research) point of view that's a great exercise. For the rest I rely on peers for interesting content.

**BBK:** I think once you begin relying on social media as a relevant and legitimate news source you should probably take a step back from the internet and immerse yourself in the 'real' world for a little while, whatever that even means anymore! Although we of course know that's already the case for many people, especially young people, with social media diluting the connection to catastrophic events and of course becoming a breeding ground for alternative facts... Is your interest in algorithms and the harnessing of one's data being discussed through your cable pillars?

**JC:** I have never thought in that way about the cable sculptures. But this could be a possible way of reading those works.

The cable sculptures started from the idea of a physical/material side of the internet, making this visible. As so many people are not aware of the hole infrastructure, for example the massive amount of cables in the oceans connecting the continents. I like the idea that those cables were a source of energy, connecting people and now they become relics in the form of an artwork. The opposition between the fastness data goes through the cables and the slow process of making the work is something I like.

**BBK:** I like portraying the cable as a relic, and how the ideas embedded within those works will become even more pertinent as we as consumers continue to strive for a more wireless world, intent on forgetting about the hidden data cables under the sea. The intent of the work reminds me of Trevor Paglen's undersea photography, or Evan Roth's Kites, both projects being developed to expose or



Joachim Coucke: 'Frequently Answered Questions', 2017, mixed media // Courtesy of the artist

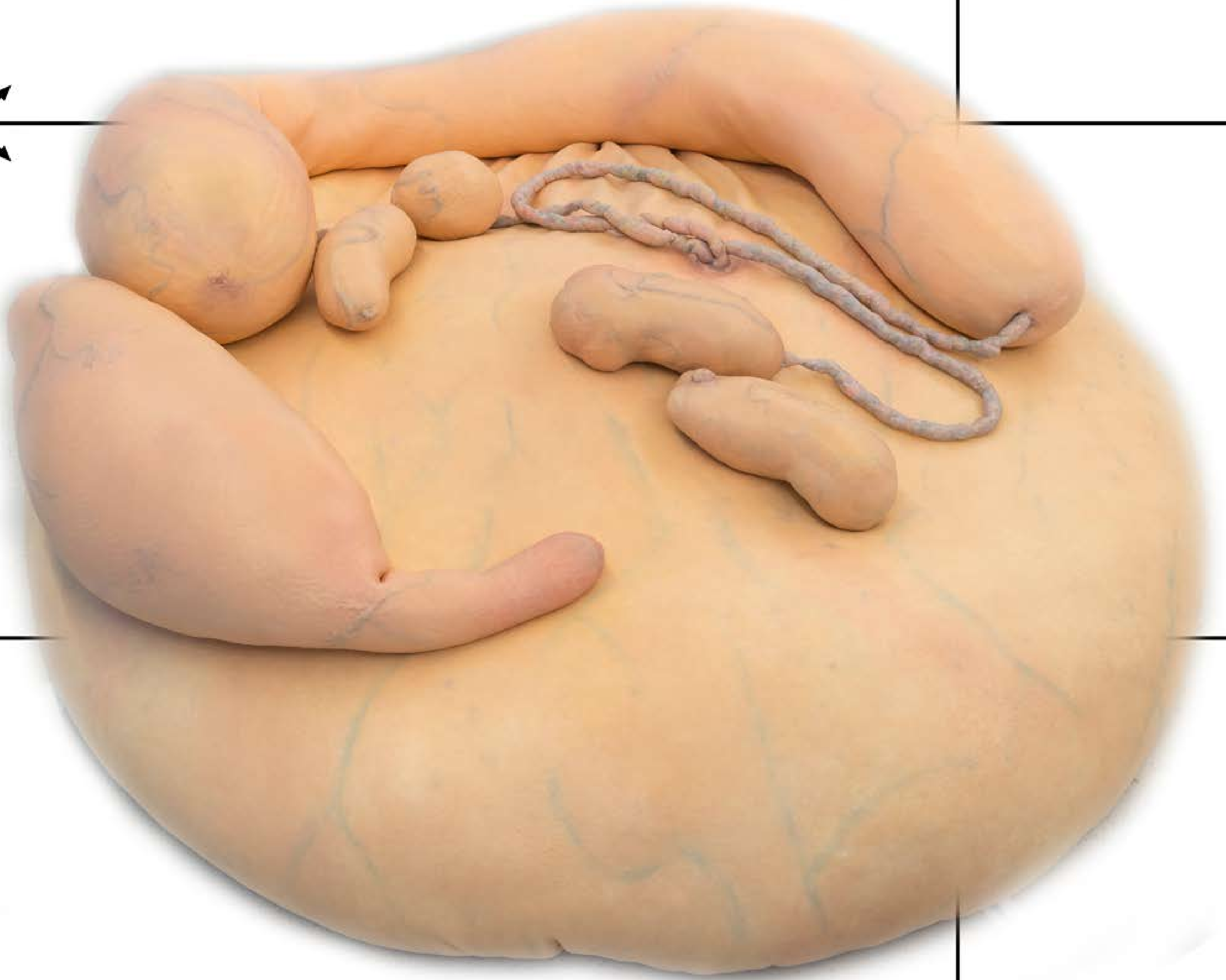
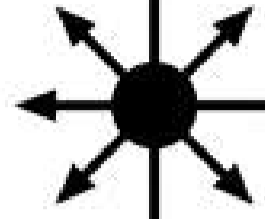
unmask the vast physical infrastructure of the internet that we all seem to rely on but don't necessarily know, or want to know, about. I'm wondering how all of this connects to your role as CEO of DASH, a non-profit exhibition space in Belgium?

**JC:** For me curating shows for DASH is a sort of extension of my practice. I get to work with great artists and for every show I learn something new. This opens so many new perspectives beside my own visions and research field that I somehow that into account for my own work.

Selection wise I look for artists that can deal with the specific character of the space. There's many doors that can't be blocked so a typical gallery show is not possible. But as a non-profit there's no need for this kind of shows as there's already tons of those out there. For now the focus is on sculpture and installation as this fits best with the space and I try to get a good balance between solo and group shows.

**Bob Bicknell-Knight** is a London based artist and curator. Using found objects and tools made readily available by the Internet, drawing from a unique sensibility influenced by participation in online communities and virtual games, Bicknell-Knight's work explores the divergent methods by which consumer capitalist culture permeates society. Utopias, automation, surveillance and digitization of the self are some of the themes that arise through Bicknell-Knight's examinations of contemporary technologies.



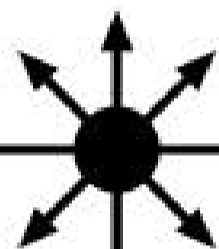


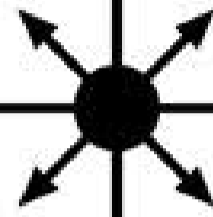


*My face is a set of points and measurements between features.  
Already, I am aware of my height and width at several varying points on my body.  
These are the ways I am identified, grouped, and advertised to.  
I have mapped and memorized my facial measurements as they relate to each other.  
This is how I identify myself personally and externally.  
I do this exercise every five years. You should do the same.*

OUTFRONT

5843





*Towards Poesies of AI or A Sweet  
Resistance, A Very Sweet Resistance.*

Elvira Højberg

In the essay 'Towards a Poetics of Artificial Superintelligence'<sup>1</sup> Nora Khan contemplates the Artificial Superintelligence. Through metaphors she sketches a language to match a type of logic that exceeds our cognitive capacities. The ASI is not, she insists, a mere superhuman. It operates according to different parameters entirely. Failing to imagine anything but human-looking aliens and bipedal robots isn't just anthropocentric – it is potentially dangerous.

While Khan writes from a position of urgency, her tone of doomsday mixes with something playful and genuinely inventive at times. The ASI is sovereign, sovereign as 'magisterial, suggesting a self-sustaining, autonomous, cold judge, surveying the people of a valley.' It's an agent — 'devoid of attachments, and so, drained of affect', 'streamlined, with a singular goal' — or a hurricane or architect; like a star system and more. In making sense of alien logics she rearranges language to press our horizon of thought.

Ludwig Wittgenstein writes: 'to imagine a language means to imagine a form of life',<sup>2</sup> and Khan indirectly probes, *does it work in reverse too?* Does a new form of life necessitate new language? Ablaze, a sort of cosmic explosion in the logosphere. She proposes a groping in the dark with words, a poetics for conceptual change.

This proposition is ripe with potential but slightly out of place — Khan is, in many ways, a couple of steps ahead of the actual game. If her piece is a case for new semantics urged by alien, independent agents, an immediate

problem arises: precisely which alien independent agents?

In 2017 numerous Silicon Valley mascots, including Mark Zuckerberg, went out to warn and apologise. The much-disputed filter bubbles, they told us, are real. Gone is the last glimpse of a mystic web prone to utopian imaginaries: AI operates in a space of corporate claustrophobia. It creates a space of claustrophobia too, a kind of extrapolated insularity. Gilles Deleuze's speculative future is here, '[t]he conception of a control mechanism, giving the position of any element within an open environment at any given instant [...] is not necessarily one of science fiction'<sup>3</sup> — only position has been extended to consumer habits, political beliefs, intimate desires. The Artificial Superintelligence is a real possibility, but the super-controlled, super-controlling AI dominates our reality. What is at stake, at present, is not a freewheeling super machine on route to crush humanity but rather a type of humanity that echoes the machine: real life infiltrated by algorithmic risk-assessment and pre-emptive paranoia, a binarization of thought.

New language often seems untenable in the midst of a much-too literal brainwash. And what is the point, one is tempted to ask, if it neatly folds back into machines that process deviance to trends.

Let's rewind a little.

A linguistic cousin to poetry is poesy, etymologically of *poesies*. The three words have in turn and simultaneously denoted the poem, but whereas poetry is a type of creative literature, *poesies* embraces any 'process of

making; production; creation; creativity.'<sup>4</sup> It's all about the jerky, messy jointing of pieces, the assembly line side of things. In philosophy, poesis is there until something is; Heidegger describes it as a '*bringing forth... the bursting of a blossom into bloom*'.<sup>5</sup> To him, poesis bridges thought and language, at once revealing and forming the disclosed, the yet-unintelligible. To envision not a poetry of AI but poesis would be to bathe in a material mud-pit, a pulp damp play with software and hardware; it would be returning to the process and staying with the process, to insist that the process never rotes. It's a call for technological experimentation with no end-goal in mind but seeing what it could make thought.

This is a starting point and an old idea beginning somewhere with Marx. Before and beyond Communism, he construed the looser-fitting concept of Historical Materialism. This package of factories and land and dust and *stuff* countered the light-as-air Hegelian idealism: change wheeled by disembodied minds. Ideology, it all seemed to whir, is but the excess, the *dew that flies*, the smoke from, and lubricant of the machinery. Put differently — and somewhat obviously — ideas arise from the material world we live in. New ideas too. The Marxist-materialist lesson then, is along the lines of, Ideological overturn is not imagined, *cannot* be imagined — it is produced into form. Prior to Leninism, Trotskyism, Stalinism and Maoism, their cult-ish glows and value-tainted apparatus, the revolution was also just something like *Let's produce differently*.

Ironically, materialism risks abstracting — whether historical, speculative or new, it is all





and resumed and articulate separation. This is not tardy.'<sup>8</sup>

'A SOUND. Elephant beaten with candy and little pops and chews all bolts and reckless rats, this is this.'<sup>9</sup>

Her syntactic crassness brings out of focus. It leaves the reader dizzy and some might leave - those who stay reading intuit perhaps a different grasp on shoes, a dog, a white hunter, roast beef, book, breakfast and more, off-set snippets and angles unveiled. In an interview she says: 'my sentences do get under [people's] skin, only they do not know that they do.'<sup>10</sup> She was right but not always in a good way, many critics scorned her work for its air of nonsense and impenetrability. In an essay by Harvey Eagleson (1936) named 'Gertrude Stein: Method in Madness'<sup>11</sup> he acknowledges the brilliance of Stein but decries the lack of traditional sense in her work. 'Her writing as a whole is like a splendid workshop. The tools are all there, sharpened, polished, arranged in shining order, but that is all.' Later he continues,

'... while she may neglect to use her tools herself, others who come after her undoubtedly will use them, and her influence may be far reaching. But posterity will remember her as a great technician, not as a great artist. Gertrude Stein is a monumental tool maker [...] — no more.'

The 'no more' is curious, suggesting that making tools for new generations is less than finite work. Maybe Eagleson is right when he says that Stein's work is too reference-dense to be understood; in fact, maybe its logic is only for Stein herself, maybe there's none, but —

and this seems important— her so-called maddening method remains open and timeless. She was later of interest in queer politics, not because she clearly addressed queerness —not even because she was queer herself— but because her texts *queer*: their resistance lies prior to meaning, enmeshed in every error and repeat. The questions her work compel amass to answer: how can you dismantle conventional logic from within? and, what happens if you have fun with it?

3. 100-something years after Marx wrote *The German Ideology*, two decades after the death of Gertrude Stein, another struggle was seeping into mass consciousness, not independent of class while also transcending it: the fight for women's rights. The demands made were complicated and many, and spanned, at least, two different registrars. The first, that women ought to be equal to men, practically speaking. The second, the deeper, meta-physically-kindred request was a dismantling of patriarchal structures for something fluid, something plural. Logic and language were under attack for favouring a singular, discursive, rational-authoritative mode, a binary operation that placed things on one of two sides: right or wrong. Texts, thoughts even, were always already bias, polluted by a history of white, male domination, and changing the subject matter without challenging the form would only lead to superficial progress. This is an important conclusion and also a familiar problem: how to conceive new forms when thinking is grid-locked by the same norms it itches to provoke.

and resumed and articulate separation. This is not tardy.'<sup>8</sup>

'A SOUND. Elephant beaten with candy and little pops and chews all bolts and reckless rats, this is this.'<sup>9</sup>

Her syntactic crassness brings out of focus. It leaves the reader dizzy and some might leave - those who stay reading intuit perhaps a different grasp on shoes, a dog, a white hunter, roast beef, book, breakfast and more, off-set snippets and angles unveiled. In an interview she says: 'my sentences do get under [people's] skin, only they do not know that they do.'<sup>10</sup> She was right but not always in a good way, many critics scorned her work for its air of nonsense and impenetrability. In an essay by Harvey Eagleson (1936) named 'Gertrude Stein: Method in Madness'<sup>11</sup> he acknowledges the brilliance of Stein but decries the lack of traditional sense in her work. 'Her writing as a whole is like a splendid workshop. The tools are all there, sharpened, polished, arranged in shining order, but that is all.' Later he continues,

'... while she may neglect to use her tools herself, others who come after her undoubtedly will use them, and her influence may be far reaching. But posterity will remember her as a great technician, not as a great artist. Gertrude Stein is a monumental tool maker [...] — no more.'

The 'no more' is curious, suggesting that making tools for new generations is less than finite work. Maybe Eagleson is right when he says that Stein's work is too reference-dense to be understood; in fact, maybe its logic is only for Stein herself, maybe there's none, but —

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4. Artist Valie Export essayed an answer. In a text from 1989 she writes that '[i]t was not possible to "find one's own words," because words belong to men,'<sup>12</sup> and proposes instead a deep-rooted experimentation with the body, to see what it can be, what it can do, how it can produce or refuse to; an often-violent appropriation of the female form as gateway to (new) female subject-hood. In one of her most gruelling pieces she cuts into her cuticles until blood emulsifies in a bowl of milk on her lab. It squeals self-mutilation and trauma, a physical image of pain inside, though it's not just an image - it's internalized abuse getting to know itself through action, as much of an outside-in as an inside-out. 'Regardless of whether the material [consists] of the body or objects, in reality the drama of material [is] a drama of meaning,'<sup>13</sup> she writes. Export's work is so important and so heavy, burdened by its inward reach for an unconscious. Couldn't this drama be gentler, one might imagine asking, as she picks the pink skin from her nails; couldn't you test the outside to leap further out, towards the silvery, slippery meaning that soars nearby the tip of the tongue?

5. Feminist linguist Helene Cixous replies:

'Let's leave it to the worriers, to masculine anxiety and its obsession with how to dominate the way things work — knowing "how it works" in order to "make it work." For us the point is not to take possession in order to internalize or manipulate, but rather to dash through and to 'fly'.<sup>14</sup>

6. Don't worry, let's fly.

7. Scientist Gordon Pask illustrates a 'how'. In the fifties, he brewed his own networks: electro-chemical swamps, plastic-receptive computational fabrics of sorts. He worked ceaselessly, enthusiastically, to create 'a machine which [would consist] of a possibly unlimited number of components such that the function of these components [would not be] defined beforehand'.<sup>15</sup> He made an ear. By feeding his bio-machine noise through a microphone plunged out the window into London's Baker Street, it eventually 'learned' to distinguish between high and low pitch sounds. Faced with different environments, it developed other sensory responses too. Pask played the double-role of creator and collaborator, and facilitated concurrently (perhaps exactly therefore) one of, if not *the* first self-adapting artificial intelligence.

While technically naïve from today's perspective, the method remains a kind of avant-gardism of science: a happy indifference to absolute control disguised as undetermined processes, like dada-games in petri dishes. A recent paper concludes that the objects of Pask are 'like the synthesis of a scientific problem in itself'<sup>16</sup>; they resolve next to nothing to produce instead new complexities. He is, essentially, making things more difficult. Perhaps this explains why his work slowly faltered in cybernetics. Self-adapting AI soon became known as Second Wave Cybernetics but was eventually given concrete goals (money).

8. '[T]echno-sciences should no longer be an Object, but a Subject, one we have to re-appropriate, corrupt and de-alienate from its mystic ideology of progress, in a "democratic anthropotechnic" strategy to simultaneously denounce and produce,'<sup>17</sup> says architect Francois Roche, who runs the architecture studio R&Sie(n) (which in French reads as heresy). It's fronted by a transgender avatar, s/he, who communicates a practice of computer-figures and eco-robots - Roche is something like their secretary. In general, he exists at the periphery or maybe he's buried deep in the center: he has designed more biennale pavilions than houses; his work is fictitious, uncompromised, it exercises loss of agency and is most definitely his; he scorns the Academy and has taught at most architecture schools of significance: Bartlett, Columbia, Upenn, MIT. One could call him a paradox. In 2011 R&Sie(n) changed name to New Territories and moved to Bangkok to escape the 'sad museum' of Paris. Together with Camille Lacadee he started MindMachineMakingMyths (Lab M4), a robotic lab floating on the Chao Praya river. 'On the top there is a seven-axis robot and below it is like a zoo, with a whole family of Asian water monitors.'<sup>18</sup> Sometimes there's a connection between the robot and the beast, he explains in an interview and gives us, coincidentally, a type of analogy for his work. In recent projects, his robots design props through aleatory processes. They are produced from waste materials and subsequently placed into local sites to form part of new eco-techno-systems. The production comes with a radial stream of films and texts, manifesto-corollaries of resistance. A recent one is called 'Stress less,

design more' and begins 'Wow. Honestly, I fell into architecture by accident and coincidence.'<sup>19</sup> A large part of Roche's practice is a reflection on his practice, his robots are like self-sustained pools of inspiration, a way to bypass a lack of inspiration elsewhere.

One *could* call Roche a paradox, though his every act feels steady-handed: his world is one of inclusive difference rather than actual conflict. Here you can, in fact, denounce and produce, be apart and a part, push something to its limit and dissect. It's a criticism too busy doing things to feel sorry for itself.

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Recently, there has been a lot of talk about accelerationism, the idea that social change is reached by speeding up capitalism and its technologies. The right, the left, the feminist and black in kind, all agree that the only way to move forward is to *move through*, what in philosophy is known as immanent resistance. Accelerationism (also) begins with Marx but settles in the work of philosopher-duo Gilles Deleuze and Felix Guattari. Two important concepts here are territorialisation and deterritorialization. The latter is the dissolution of the humanist human and form, anything unified and solid, in favour of the schizo: a boundless space of indeterminacy. Oppositely, territorialisation holds; it's the state, syntax, sanity, the status quo enforced. In their first book, *Anti-Oedipus* from 1972, they outline a type of schizo-resistance: total

deterritorialization. Capitalism forms part because it already destabilizes; in today's accelerationism it's envisioned as a techno-capitalist thrust, climaxing with the singularity.

8 years later, a decade of Thatcher and Reagan wiser, Deleuze and Guattari wrote their second book together, *A Thousand Plateaus*. It moderates: tells us that total loss of ego is ultimately a type of death. 'In doses,' they write. 'As a rule immanent to experimentation: injections of caution.'<sup>20</sup> Caution doesn't mean control and this is where a moderate accelerationism misses the point: it wants technological development only inasmuch it benefits humans directly. When clutching onto usefulness, deterritorialization loses its drive, or becomes something else entirely.

A different interpretation of *A Thousand Plateaus* is something open and small but piercing. Accelerationists seek speed, but Deleuze and Guattari reference all kinds of fucking around with materials to inspire new ideas. Which brings us back to the beginning, in a way.

AI easily excites us to forget that it probably won't leap to the future by itself, that it won't be an easy solution to complex problems either. In the end, it's not dissimilar to words or bodies: a type of material — even if it has a mind of its own. And that's helpful, because it gives us a history of experimentation to stand on. I think points about aimlessness and ruthlessness are important here, if anything, they show us that lots of things didn't matter until they suddenly did, and that when they did they were sometimes really important. In a way

of summing up: let's make tools instead of solutions, process instead of sense; let's do a lot of really small things with AI, very playfully and very seriously. As phrased by Roche,

'(what advice would you give to the young?) to take time and to prepare themselves for a kind of resistance. a sweet resistance, because life is unique. a very kind resistance.'<sup>21</sup>

### (Endnotes)

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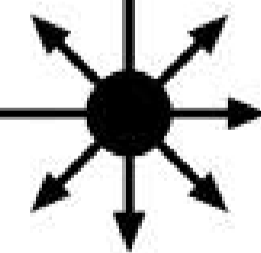
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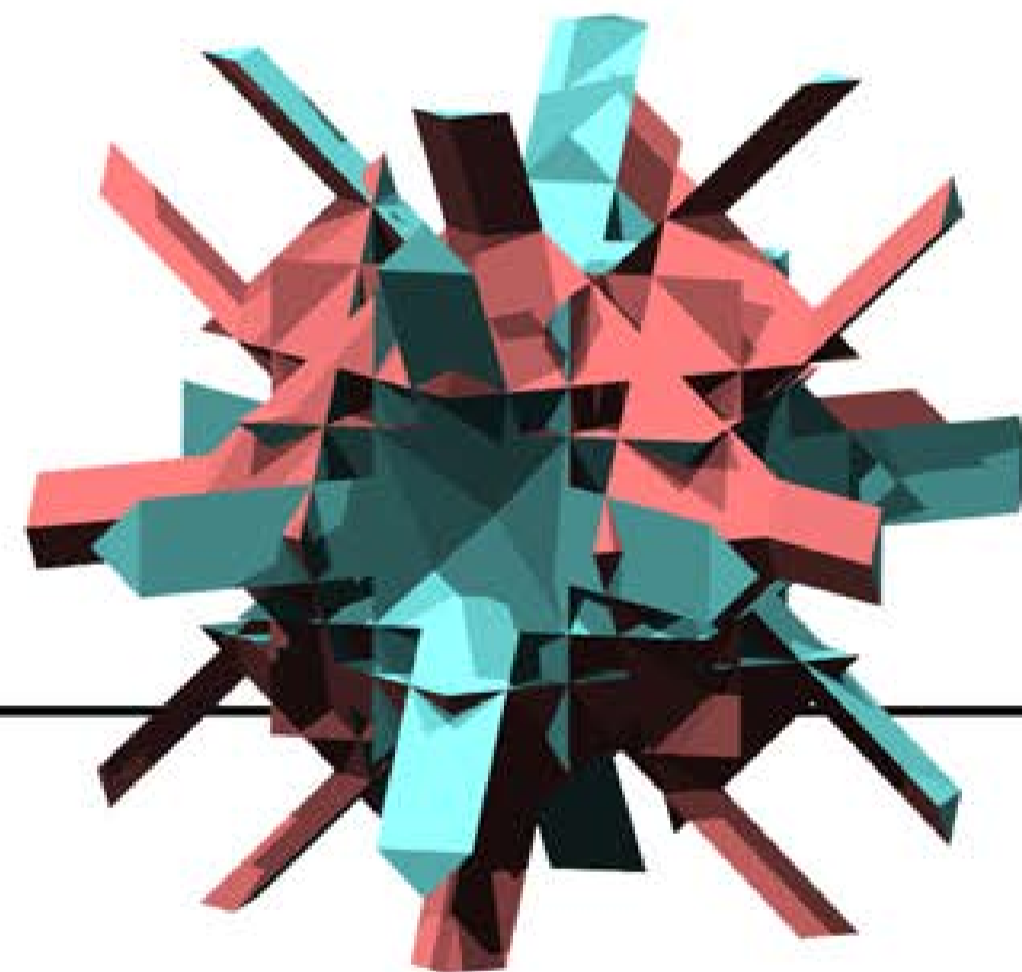
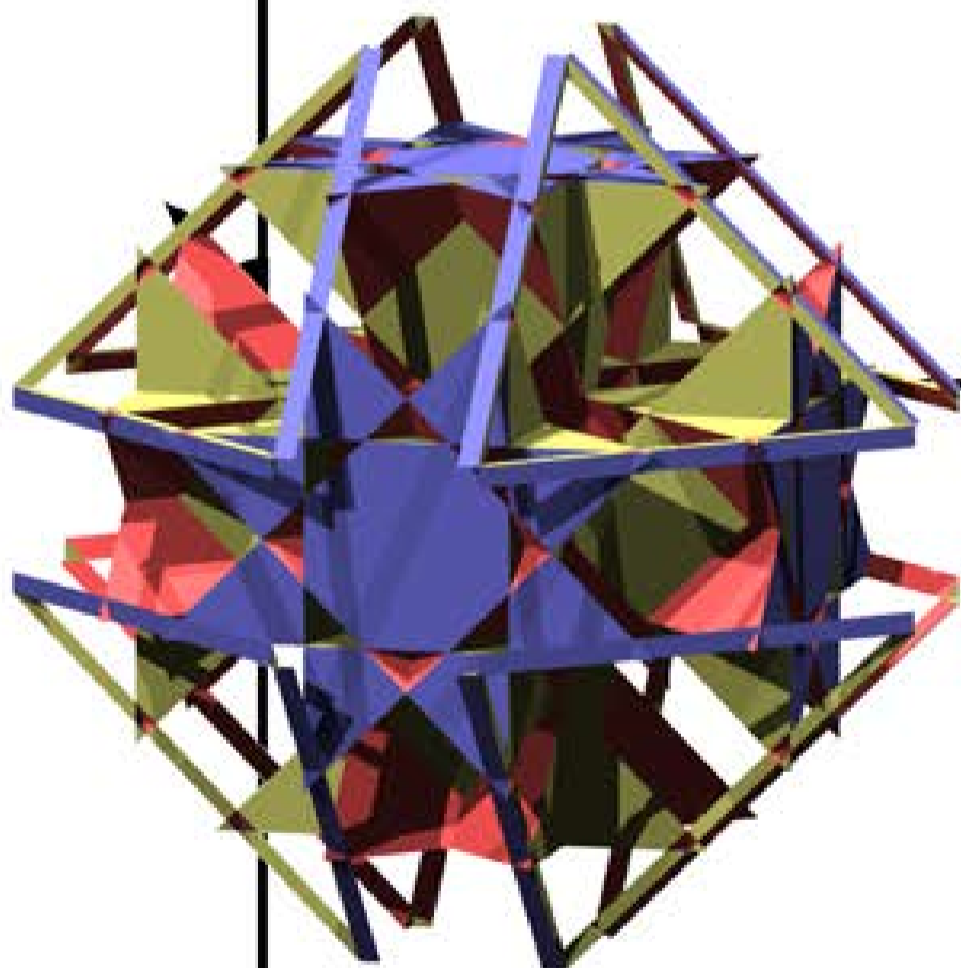
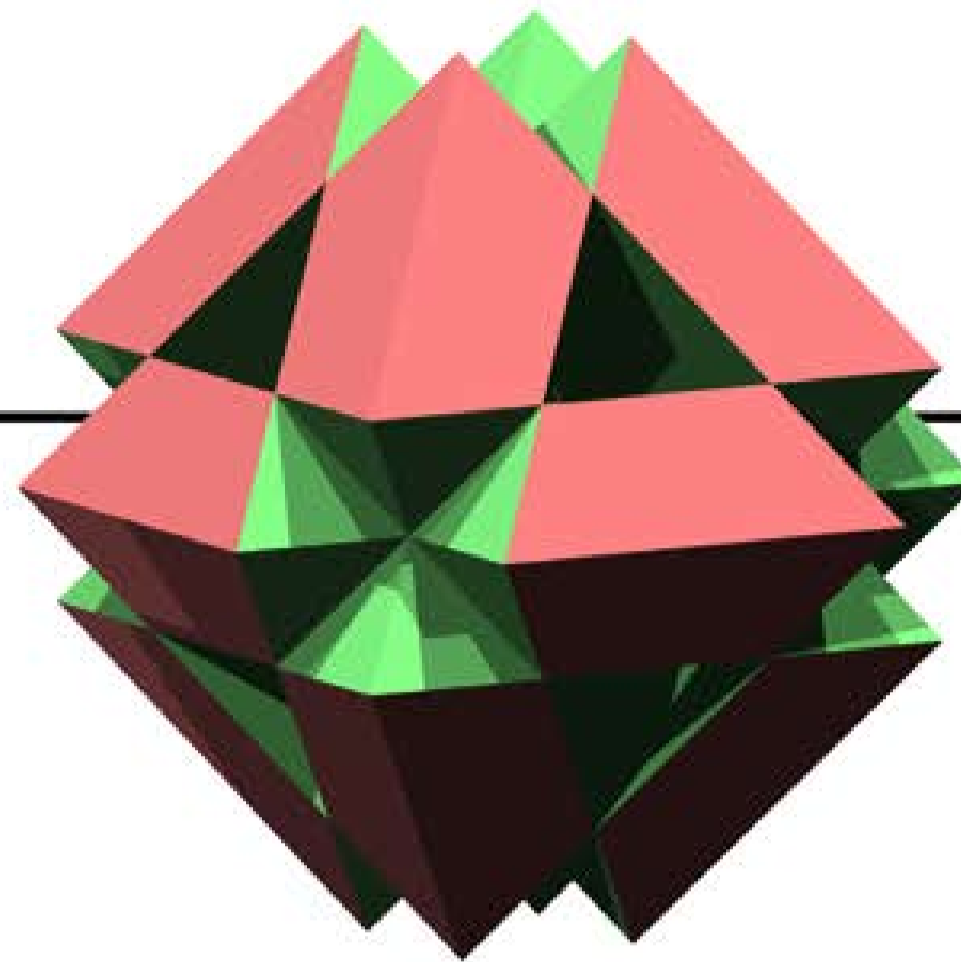
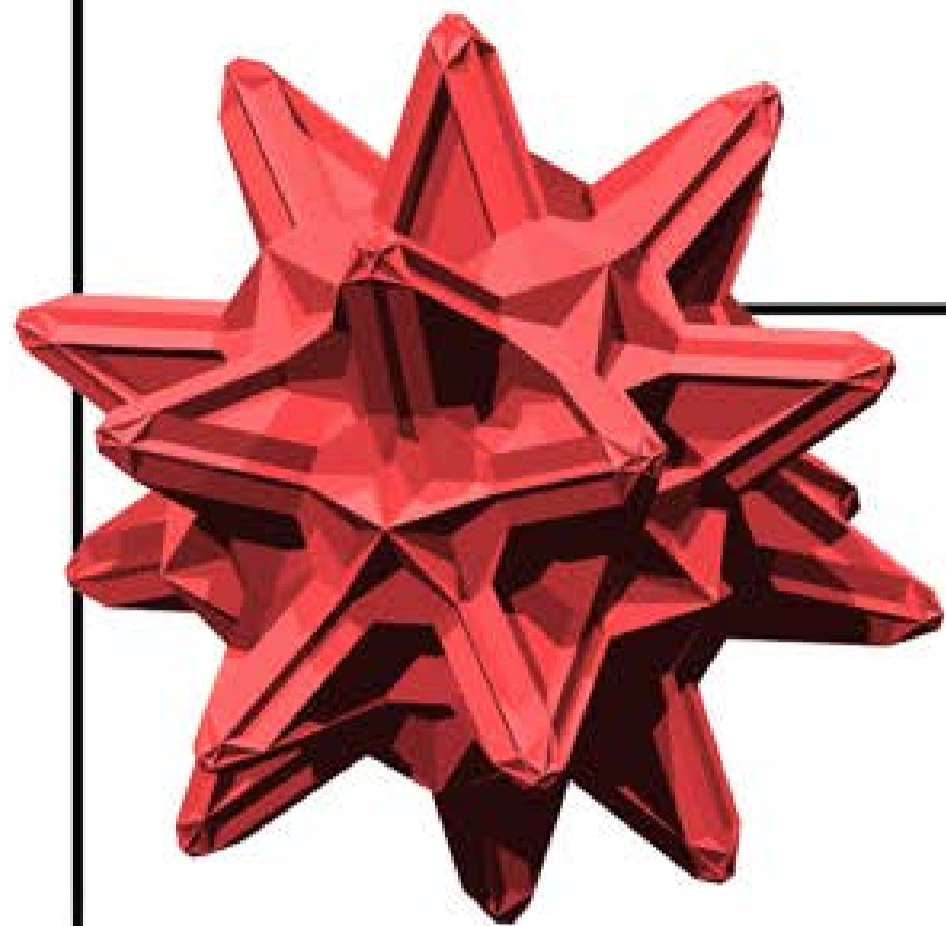
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Constant Dullaart // [constantdullaart.com](http://constantdullaart.com)

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Courtesy of the writer

**268 – 269**

Joachim Coucke // [joachimcoucke.be](http://joachimcoucke.be)

*Containing the Future*, 2017

Mixed media, dimensions variable

Courtesy of the artist

**292 – 293**

Yuri Pattison // [yuripattison.com](http://yuripattison.com)

*dust scraper fan 3.1*, 2017

Custom made perspex IU format server case,  
power supply unit, PC case fan, paperclip,  
TSA approved lock, printed materials, key,  
cable, dust, sebum.

5 x 65.5 x 43 cm

*dust scraper fan 3.8*, 2017

Custom made perspex IU format server case,  
power supply unit, PC case fan, paperclip,  
passport (Puerto Rico), US prison issue  
headphones, cables, dust, sebum

5 x 65.5 x 43 cm

*dust scraper fan 4.2*, 2017

Custom made perspex IU format server case,  
power supply unit, shredded times  
newspaper, novelty 'Hacker';  
diplomatic passport

5 x 65.5 x 43 cm

*context collapse surveys, 2017*

Digital video, processed data feeds; digital signage software, TFT monitor

Duration variable

Courtesy of the artist and mother's tankstation limited, Dublin & London

**294 – 295**

*peace mode (off), 2017*

Customised WebGL crowd simulator, Dell PowerEdge R610, NVIDIA GeForce GT 710 graphics card, TFT monitor, plexiglas, scale models.

Dimensions variable, duration infinite

Courtesy of the artist and mother's tankstation limited, Dublin & London

**296**

A. P. Vague // [apvague.wordpress.com](http://apvague.wordpress.com)

*Doxa Road (10/17), 2017*

Programming, digital imaging

1650 x 2550 pixels

Courtesy of the artist

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Sid and Jim // [www.sidandjim.com](http://www.sidandjim.com)

*Post 2020, 2018*

Exclusive podcast available at [www.isthisisthisit.com/issue-04](http://www.isthisisthisit.com/issue-04)

