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Reconfigurations

New assemblages of the digital age

by Gustavo Romano
(Curator)

The explosion of new technologies has had a monumental impact on the life of man, whether on his body, on his environment or on his relationships. Digitalisation expanded his senses, his way of moving in space, his memory and even his intelligence, enabling a greater range of possibilities, and greater diversity and specificity at the same time.

With the arrival of the Internet, this phenomenon has accelerated even more. Over the last twenty years, we have witnessed the emergence of an unknown universe based on new human-technological assemblages. A world moulded by electronic money, P2P cryptocurrencies, satellite control systems, and even Big Data, whose soon to be biggest and only users will be robotic agents in the form of artificial intelligence neural networks. All around us we saw the growth, or miniaturisation, of all kinds of mobile devices, and we also saw the growth of new dangers: the digital divide, hypercontrol and cyberterrorism.

From a theoretical perspective, the impact of technology in relation to humans has been interpreted from very differing and at time opposing positions: from Marshall McLuhan, who understands technology as a prosthesis of the body and the mind, or Friedrich Kittler, who in contrast, considers that the evolution of the media is totally independent from man[1], to Bruno Latour and his Actor–Network Theory, or Félix Guattari and his interpretation of computer code as a-signifying semiotics, which as such, deterritorialises everything in its path.

But art also, albeit from different approaches and disciplines, has reflected on these new relationships resulting from the crossover between man and the machine-digital, on the intrusion of code into the areas of production and on the new exchange, consumption and control models produced by the networks, both software and human. In the same way that painting changed the reason for its existence with the advent of photography, all contemporary art must reconsider its function after the emergence of the digital networks. This time the change has gone beyond just that of the image. What the internet radically alters is the behaviour and manner in which we relate, the production of goods, education, money and the conditions of expectation.[2]

[1] Kittler, in his idea of displacing man from the centre of the history of media, considers that in any event, devices will appear to replace, cancel or prevent errors committed by the senses.

[2] Going beyond the supports, we can now say that all current art is post-internet. Even painting is post-internet, given that it is viewed in another light and in a context radically different to the art from the period before the internet.

Of all the countless phenomena that have emerged on this new stage, we halt at those which affect the scope of action of the subject and which alter the classical notion of "normality". Phenomena such as cyborgs, but also those of virtual reality, artificial intelligence (and the collective), Big Data and quantum computers, invite us to reconsider the parameters we would normally use to measure human capacities, expanding and opening up a discussion of the limit of the skin, the senses, the memory and even what is individual and what is collective.

Through works covering these topics, we shall establish four areas in which new technologies break the dominant model of classification, that which is "normal", characterised by the exclusion of what is different.

SECTION 1

Expansion of the perceptual scope

sensors, artificial vision, bone conduction, infrared spectrum, wave detectors, sensory prostheses.

Since ages past, man has tried to increase his sensorial capacity, whether to observe the world beyond his immediate surroundings or to improve his knowledge of where he is. Through the use of optical and mechanical devices, he has managed to extend his universe outwards, towards that which is furthest away, thanks to the telescope, and towards that which is smallest, with the microscope. [3]

But it is with electricity, and later on in electronics, that these increased powers of perception take off, far beyond the spatial scale, towards other variables such as multiplicity, (the dispersion of devices around the whole planet) and the everlasting nature of the record (the capability to store what the devices capture). From photograph and the phonogram we move on to the telephone, radio and television, thus enhancing the scope of our voice and our ears, multiplying our eyes and therefore our presence in the world.

It is at this moment of the 20th century, with the appearance of mass media, that McLuhan formed his theory in which he likens the media to enhancements of the human body, maintaining that each new technology has the capacity to amplify a specific bodily function: clothing as an extension to the skin, wheels for the legs, books for the eyes, electrical circuits for the nervous system. But McLuhan states that all technology when it enhances, also amputates another faculty and makes the function of the other medium obsolete. This leads

[3] We can even affirm up to which point the desire to spy on the macro and the micro are simultaneous, if we consider that both inventions occurred in the same year: 1590.

him to consider a certain dynamic in technical evolution -his tetrad concept[4]- and to consider how this technological and communicational environment moulds human behaviour.

The arrival of digital means a radical jump in this evolutionary spiral of the media, which will make us reconsider some of the statements by McLuhan. Furthermore, the multiplication and miniaturisation of the devices causes their presence to invade all corners of the globe. Whether we are thinking about mobiles, security cameras, satellite systems, seismic sensors; all these millions of eyes, ears and hands allow us to see, hear and touch not only the planet, but our sensorial enhancements have reached other landscapes in the solar system, they have seen sunsets on Mars and have entered deep space, where there is no light to guide the way.

In addition to enhancing the spatial dimension, the new digital devices also enhance the range of the perception: not only can we perceive the waves from the visible and audible spectrum, but also through the use of sensors (infrared, ultrasonic, radiation, etc.), we can expand our scope to all types of frequencies and waves, which allows us to improve our measurement and manipulation of the world around us.

But now in the 21st century, these digital devices have begun to replace us in both control and production tasks. Artificial vision, satellite localisation and the facial and voice recognition of these devices exceed human senses in terms of precision, therefore man has taken a secondary role and merely takes charge of the complementary tasks for these processes.

It is within this new machine-digital environment that we must develop. As Friedrich Kittler said “After all, it is we who adapt to the machine. The machine does not adapt to us”. Moving from the centre of the stage to the human being, and focusing directly on the devices, Kittler disagrees with McLuhan and his vision of the media as a prosthesis of the body, given that in his opinion, technology follows its own evolutionary path. In any case, with regard human senses, the German theorist considers that devices do not only try to better them but rather replace them, due to their greater efficiency and lower margin of error.

The proliferation of information generated through these devices, mostly thanks to the internet, generates new ways of relating and exchanging, and subsequently new types of assemblages. This situation turns us all into a cyborg (*cybernetic organism*) society in which, unmanageable flows of communication -always measured by the code-, circulate between man, between man and machine and on an ever greater scale, between machine and machine.

But most importantly, thanks to the mobile networks and smartphones, it is no longer the fixed devices such as television cameras which allow us to see more or further: man carries his technological senses, -his perception organs in the form of sensors- and captures, photographs, comments and tags everything around him. This layer of information in the form of code is added to the visual image generating a variety of hybrid formats such as

[4] In his book Laws of Media, McLuhan presents four fundamental laws of media posed in the manner of questions: What does the medium enhance? What does the medium make obsolete? What does the medium retrieve that had been obsolesced earlier? What does the medium flip into when pushed to extremes?

augmented reality, whether this is in the form of glasses, helmets, clothing or other accessories which will make up our smart wardrobe.

In light of this vertiginous setting, it is worth asking ourselves how these changes will alter the parameters of what we considered as “normal” yesterday and how we classify the new forms of relationship resulting from the multiple possible combinations between human sensorial functionalities, both individual and collective, and digital devices.

In the field of art, where these problems have long been reflected upon, we also find proposals which, from different positions and varied production strategies, investigate these relationships or the good use of these types of devices, in works that we shall describe below.

Christine Sun Kim

Documentary video

Christine Sun Kim tells us that, since her childhood, she understood that sound was something that could be respected, even though she could not understand it as she had no way of perceiving it. However, she could see how sounds modelled and ordered the world of which she was a part, establishing their own rules, imposing spaces of sound and silence. Later, mostly through art, Sun Kim decided to capture sound using the only means that she could: through its materiality, its movement and the objects left behind in its wake. Using, for the most part performative practices, her work includes dual action moments: conducting exploratory walks with a microphone in hand, where, provided with this technological expansion, she manages to capture this complex world of vibrations on the streets. Then, using several electronic devices speakers, mixers, sensors and visual elements pigments, brushes, ribbons she recreates this sound complexity in an active visual patchwork that reacts to the previously recorded outside material.

Kim Sun invites us to experience an expanded listening, sound pieces to be perceived not only with the ears but also with the eyes.

Eduardo Kac

Aromapoetry

Aromapoetry is, as defined by its author, a book of twelve poems to be read using the nose. The various scents distributed along its pages, new essences created by Kac, compose a complex wordless "writing".

One of the functions of language is to "capture" sensations or experiences using a code as a tool. Poetry has already, using various strategies, managed to evoke aromas and what they themselves rouse: the smell of the salt that the waves carrie, the smell of flowers at sunset, or that of a winter firewood, can also evoke the memory of feelings and experiences associated with them. As for any artistic production, percepts are interlaced with affects.

However, in the case of Aromapoetry, by providing us with the direct experience of the aroma, Kac not only bypasses the language encoding process, but also the instance of representation: by creating his own essences, they do not seek any evocation whatsoever, but rather the direct experience, in a similar manner to the poet, who creates his own words. New olfactory experiences are encapsulated under layers of nanometric glass, which slowly release the enigma of each poem.

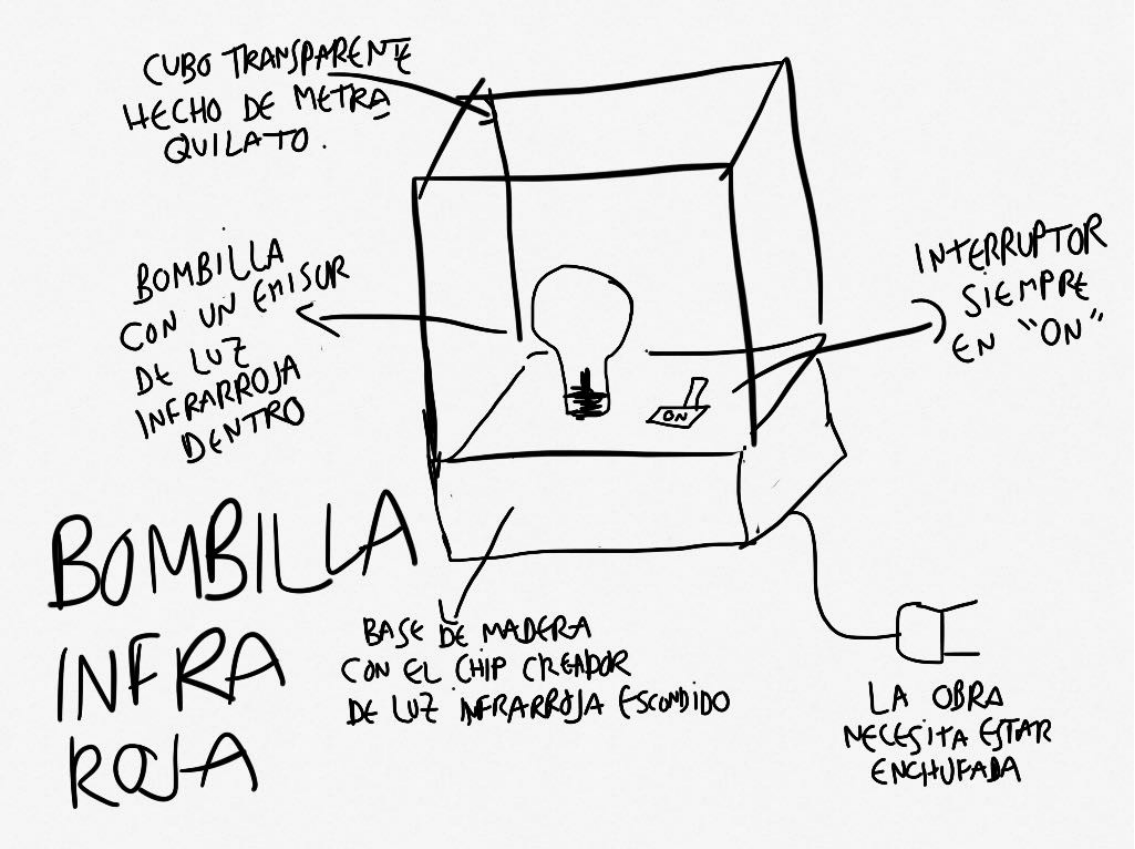

Pete Eckert

Monique I / Monique II / Monique III

While Pete Eckert has been an artist - working specifically in the field of sculpture - it was not until he completely lost his sight that he began working with photography. He is a visual artist, one who shares his visuality, although not seen through his eyes, but rather seen from beyond, or closer to, his eyes. For the most part he uses the technique of *light painting*, where the lighting prevails before the capturing device, the subjectivity of the "print" before the objective coldness of the camera obscura. He does not use his eyes, and he does not mechanically replace them either with technical prosthetics (with a photographic lens), but rather, he "interprets" situations through light, he manipulates them, he intervenes, nearing the performance art.

Eckert commences in total darkness and constructs a visual experience that is almost tactile. As expressed by Val del Omar, on the developed of his concept of "Tactile Vision" and concerning his achievements in expanded cinema, "to see, we need eyes and light, which makes these two elements complementary." The artist, who uses the artifice of light, must allow it to fall upon the objects, to use light to express a tactile sensation when touched: the reaction"[5]

[5]"When we look at an object to become aware of its form, we focus our eyes in agreement on such object. It is touched by two sensitive surfaces (your retinas), so that between the two, and the difference between them, providing a perception of its form and distance. (...) Tactile Vision is an elevating and pulsating language of a palpitating sensation of all that lives and resonates. Art from this new tactile vision consists in the interpretation that must be undertaken by the lighting technologist-artist, making use of a pulsating lighting system that varies in rhythms, intensity, colour and location." Val del Omar, José. Teoría de la Visión Táctil, published in the journal, Espectáculo, Madrid, No. 132, February 1959.



Neil Harbisson

Infrared Lightbulb

This work by Neil Harbisson presents and lets us question the concept of "normal" vision and that which is considered as being "different". This installation is simple but effective: a light bulb that we notice that it is switched on but yet "normal" people do not perceive it, and however, many animals and the artist himself are able to, as the light being emitted is in the infrared range of the spectrum.

Different means of colour perception in nature depend on how many "sensors" there are, called cones. There is trichromatic vision (RGB, red, green and blue), but there is also vision that uses fewer channels, either two or one, or even none (in the case of achromatism) and even more than three (tetrachromacy), allowing, in this case, for a greater spectrum of visible colours[6]. But more is not always better, as can be observed with computers: a greater amount of colour information requires further requirements to process them and the responsiveness to a limit situation is reduced. A reduced amount of colour information also allows for a greater capacity to perceive nuances of light and shadow, and even to better differentiate colours that are next to each other in the spectrum.[7]

[6] Tetrachromacy is common for most human beings and some primates, while dichromatatism, or colour blindness in human beings, is most commonly found in nature, along with tetrachromacy, being commonplace among birds, fish, reptiles, insects, but exceptionally also in women, since it is a characteristic related to the X chromosome. These people with super-vision can distinguish one hundred million colours, while trichromatic people can see around one million.

[7] During World War II, it was found that people with dichromatism were much better at detecting camouflages and in some cases they were able to detect them when trichromatic people could not.

Harbisson forces us to rethink the limits of perception. Due to his achromatism, he has been using a technological implant device, the *eyeborg*, allowing him to experience colours through sounds, in a particular means of induced synaesthesia. This mechanism is officially part of his body. This was established by British law when he applied for his passport and, in this manner, he officially became considered the first cyborg.

The eyeborg, due to its technology, "sees" a greater range of colours than trichromatic individuals and, consequently, it captures the infrared range. In Harbisson's work, some see the light bulb switched on and others do not. The artist can see it via the electronic extension of his eyes connected to his body. Trichromatic people cannot. To "see" it, they must use an external device, such as the camera on their mobile phone, which will translate the infrared range into tones of red.

Infrared Lightbulb is an invitation to share various ways of perceiving the world and to walk the path of a cyborg, in the current context of an increasing interaction between human beings, machines and digital networks.

Amelia Marzec

Re-Wired

Amelia Marzec takes up the old technique of bone conduction listening, used for example by Beethoven, by including the advantages of electronics. Driven by her own limited hearing, she developed the *Re-Wired* project: a helmet containing a number of microphones and devices that allow the inner ear to perceive ambient sounds via bone vibration.

This "circuit bending" allows us not only to experience the same mode of perception as the artist, but to experience an expanded means of listening. When one avenue is blocked,

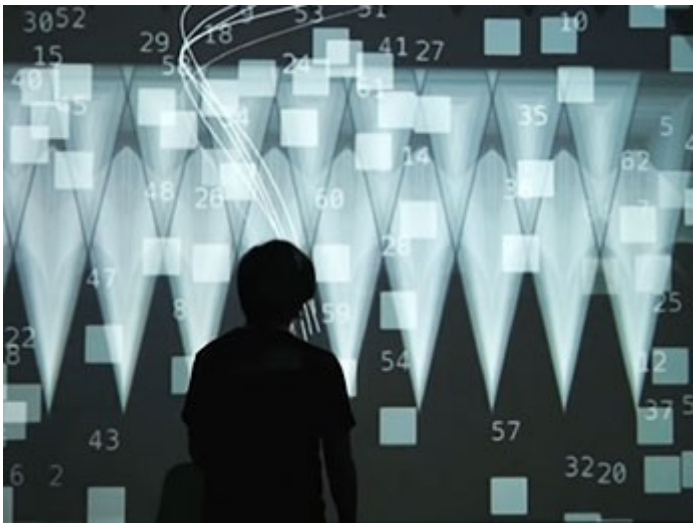
others often open up, creating a new means of circulation. It also invites us to move, to travel through our environment and above all, like many other sound art pieces, to be conscious of "listening", to pay attention to the complexity of sounds and to transcend the automation of daily routine.

Juan Torre

La llamada (The Call)

This series of photographs in relief has been made not only to be viewed but touched. Juan Torre, a participant of a rational approach to photography, in which certain abstraction is proposed that eliminates accessory details, such as the absence of a background, where anything that is not the subject is reduced to black, or the abandonment of color altogether.

This game between the rational and the limits of perception, between the tactile and the visual, is taken to the extreme in works such as *La llamada*. In this photo, the image of a woman can be seen with her hands on either side of her mouth, emitting what we perceive is a scream. The purely visual property of photography ensures that it lacks the capacity to record any sound content. In this particular photograph, we can imagine the sound from its appearance, through the gestures of the body, however, it cannot be heard. The same for both those that can hear or for those that cannot. Whether we have touched it with our hands or not. We are left only with the representation of the scream and the paradox of playing with the limits and the "translation" ability of each one of the senses.



Julio Sosa

With in/visible hidden noise

In this interactive installation, Sosa presents a black box with a hole, into which we can put our hand. Inside, we discover objects that we can only imagine through touch. The Arduino-based sensors and speakers system detects our touch and reacts with a series of audible and visual signals.

While we explore the physical object hidden from our eyes, we experience its corresponding audiovisual-virtual object. A mental picture emerges from what we touched and we must confront the electronic image together with it. Unlike a musical instrument, including electronic instruments, the object being "played" remains unalterable, unchanging and inaccessible to our eyes. What is generating the fluctuation of the perceivable image, will be the drift of our fingers out of curiosity.

Peter Vogel

Stile mit vier Lautsprechern

This work by Peter Vogel is part of a series of sculptures to be "touched", not like touching a sculptural object, but rather like being played as a musical instrument. The works in this series are built solely using electronic components, leaving the structure completely bare, displaying the circuitry and focusing on its role of interaction with the public. Their photocells perceive the shadows of our hands, which modulate various circuits that finally generate a variety of sounds, according to each of its parts. Consequently, these are sculptures with "eyes".

This sculptural work has been characterised by putting in contact, in an atypical manner, what is visual, what is tactile and what is sound. His sculptures may resemble urban conglomerations or models of smart buildings. However, they also suggest being in front of a text, written with capacitors, oscillators and resistors, instead of words. This is a text that everyone can "read aloud", as the movements of our hands around each "word" are transformed into sounds.

Víctor Meliveo

Scan and Tech

Although not the most commonly used photographic technique, camera-less photography was born shortly before and almost at the same time as its half-sibling, photography with camera. The latter was the result of the marriage of two independent technological developments: the camera obscura and the setting of light onto a medium through chemical means[8]. Subsequently, Anna Atkins, using blueprints, Man Ray with his rayographs and László Moholy-Nagy with his photograms, being in line with the concept of "New Vision"[9], there have been many who have explored this technique linked more to the touch than the visual. Seeing

[8] During experimentation with these chemical processes and based on a dynamic of trial and error, they had produced the first "photographs" in history.

[9] Moholy-Nagy coined the term "Neues Sehen" (New Vision), based on his belief that photography could create a new means of seeing differently than the human eye. New Vision became an artistic movement, in connection with the Bauhaus, which regarded photography as an autonomous artistic practice with its own laws of composition and lighting, through which the lens of the camera becomes a second eye to observe the world. One that is more direct and more objective.

is like touching: a recurring cliché started by Descartes and his comparison of vision as a blind man with two canes that, more immediately and with a greater reach than the length of his own arms, manages to "touch" the world.

Victor Meliveo uses a scanner instead of a camera, in other words, touch before sight. Because this is how the image is composed, captured by the scanner: an orderly encoding through the contact of a determined surface. There is no panoptic device, an eye, which captures the totality, but rather an electronic eye, a CCD, which, in fragmented and extended form through time, makes a journey, a transformation and a reading on what is within reach of its tactile surface. The scanner also converts the image into language (computer code), into a kind of digital "ekphrasis" to be read by computers. This reminds us that vision is hardware, however, it is essentially software.

Meliveo, through his almost performative recording practices, exaggerates the fragmentation of the device and takes advantage of the temporality of the "take", being opposed to instant photography, as well as the extreme "realism" that is derived from the greater recording and storage capacity offered by the scanner.

SECCION 2

Redefining personal space and interaction

motor prostheses, robotics, drones, Second Life, telepresence, social networks, cyborg.

If the above section analysed the impact of technology on perception, here we shall look at the relation between humans and their environment and how their way of moving around and manipulating it has changed.

With the industrial revolution, our world began to shrink and our radius of action, expand. The train, steam boats and then the car -using road networks, canals and routes- began to trace fold lines across the earth, draw tensors that would make the spaces twist, thus turning hours into minutes, making our legs longer and our strides gigantesque.

Electricity helped accelerate this dizzying process, but at the same time it has made us reflect on the need to move or not. The television, telephone and the radio allow us to visit remote places without having to move from our living room. We then begin to have experiences that are not our own, from the most frivolous to the most bloody, sharing similar emotions with spectators from all around the planet. We let others make the long journeys for us. Neil Armstrong's small step became, thanks to the means of mass communication and the narcotic effect of "real-time", into the "giant leap for mankind". It would be these dynamics that lead McLuhan to develop his concept of the Global Village.

Digitalisation accentuates this last trend; its flag will no longer be the speed but rather the immobility that permits ubiquity. Why travel when you can be in several places at the same time?

Telepresence is establishing new behaviour and new social protocols. Facebook, Twitter, Instagram as well as Second Life, Skype, drones and even the Deep Web allow us to carry out all kinds of excursions, confessions, seductions and exchanges. But unlike the unidirectional experience of television, which is a message from one to many, and the subsequent reception by the viewers of a collective and uniform discourse, the Internet, through its millions of faces connected point to point, causes the Global Village to explode into thousands of global villages, all similar yet different, like the pages of each one of the users of Facebook.

This market of vanities, but also of products and services, is structured on the indifferent, cold and unrelenting actions of computer code. Software acts by systematically slipping by any barriers of retention, deterritorialising national borders and international treaties. It converts everything in its wake from physical to digital, it operates by eliminating all kinds of material movements, including monetary ones. Digital currency, and its paradigmatic example, Bitcoin, make not only moving sums from one place to another obsolete, but also the notes[10] themselves, and then the bank[11].

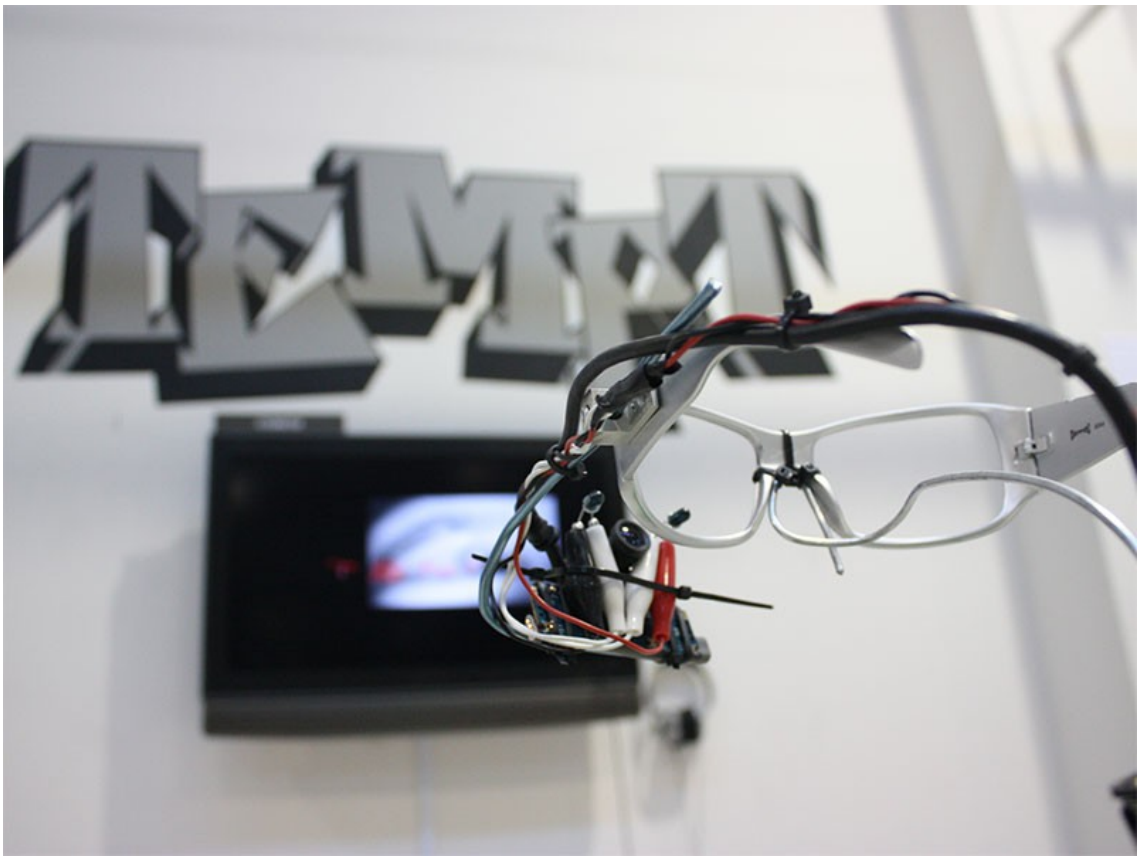
As we were saying, technology has redimensioned our surroundings and how we move about. According to McLuhan, we could say that we have electrified our legs. In the same way, we have also electrified our arms and hands. Robotics has allowed us to both "manufacture" objects in unimaginable quantities, move rocks and drill holes in mountains on Mars, as well as operate on the human body with nanometric precision.

Code has also sneaked into our bodies and today, to a greater or lesser degree, we all have a bit of *cyborg* in us, whether we depend on synthetic parts, depend on mechanical or electronic devices or, in more extreme cases, have sockets so that we can connect hardware or software directly to our body.

Numerous artists have tackled these topics, which we can summarise in how to manipulate our surroundings and how to move about it, either out of personal need or simply curiosity, investigating the heterotypic -neither dystopic nor utopic-, the post-human and the virtual.

[10] The Government of Denmark has been the first in proposing the removal of notes and coins from circulation in order to carry out all transactions in electronic money, whilst other Nordic countries are looking into imitating this measure.

[11] Lending between private individuals, known as *peer to peer lending*, *social lending* or *crowdlending*, is a long-term threat to the reason behind banks -to give credit- and puts their existence in danger. This process is similar to platforms such as Spotify, which are displacing record labels.



Tempt One, Graffiti Research Lab, Free Art and Technology, y OpenFrameworks, Not Impossible.

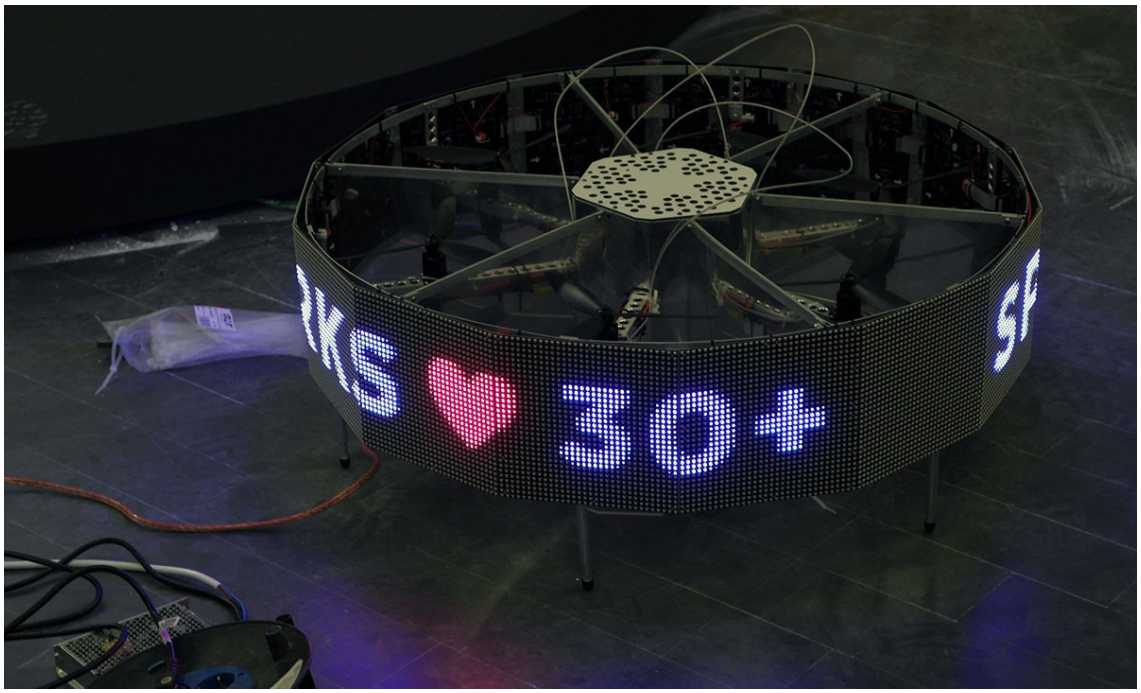
Eyewriter

The EyeWriter is a device that detects eye movement and allows for the design of graffiti, which can then be converted, for example, into projections within public spaces. This was a joint development that included the participation of a large number of programmers and designers, principally the Graffiti Research Lab, Free Art and Technology and OpenFrameworks, along with the support of the Not Impossible Foundation. The aim was to create software and hardware to allow Tempt One to draw again, a legendary Los Angeles graffiti artist, who has been diagnosed with MND and whose body has been completely immobilised, except for his eyes.

With an EyeWriter, the exercise of reading and writing are much the same. The system is based on an electronic eye that "reads" the movements of the physical eye, which "writes" the form of each letter. This recognition system comes with a graphic editor (also operated only with eye movement) with which he can draw graffiti. These final works were projected in public spaces or printed in order to participate at numerous international exhibitions.

Thanks to the EyeWriter, Tempt One's eyes are no longer just canes that allow him to touch the world, but also arms and hands with which he can read, write and transform it. Following his almost complete inability to move, his graffiti will not only tour the streets of Los Angeles, but the entire planet.

His particular painting style emerged back in the late 80s, from the fusion of *cholo style* [12], from East LA, with the current wildstyle of New York. He has left a large footprint and his influence can be seen, even today, in much of the production of street art in the city. The recovery of elements of indigenous culture is also present in his way of viewing life, such as the Lakota-Sioux concept of *Mitakuye Oyasin*[13]: we are all connected. Something that is especially relevant in graffiti and hip hop culture, where cooperation and mutual help organise and shape the community. *Mitakuye Oyasin*: everything is related, everything is connected and creates networks. Networks, evermore present, which are also be woven by code and digital technology.



The Superflux Lab

The Drone Aviary

What is it to move? What has it become? From a dark cabinet, drones are controlled allowing the operator to bomb faraway territories. Online stores, like Amazon, use drones to send products to customers that have made a purchase over the Internet, without the need to leave their home, and who have paid using electronic money, which does not need to move either, since, instead, software has made an almost imperceptible exchange, using ones and zeros, from one bank account to another.

[12] Cholo style is characterised by the use of black or dark colours in graffiti, with a very structured design. Wildstyle of NY, in contrast, began using spray cans with very bright colours and very complex writing. LA style borrows aspects from both.

[13] *Mitakuye Oyasin* - we all related or connected - this is a Lakota-Sioux expression that is highly valued in this Native American culture, which is usually used at the end of a prayer or ceremony. It refers to a feeling of belonging to a single common and interconnected entity, which not only encompass all other people, but all living beings and the earth itself.

Embarking along this line, Superflux Lab presents this project with a series of prototypes of drones for the very near future, which cover a whole wide range of functions related to daily routines, within a mediatised contemporary landscape and on a network: smart flying devices for advertising, the news, surveillance, traffic or recreation. They include elements such as customisation based on facial recognition, with the contrast of privacy loss; miniaturisation, which allows for, instead of one camera or sensor, hundreds of these distributed along a greater radius of action; and interconnectivity, allowing for these to share information and behave like swarms or neuronal networks.

Moving is no longer just about moving our body, but also moving any device that conforms "our assemblage". Assemblages comprised of human beings, devices and systems, which sometimes we take the controlling position, and, at other times, control is exercised by the device, software or by another assemblages.

Lisa Bufano

Documentary video

This performative work by Lisa Bufano explores the functional multiplicity of the body, based primarily on the use of extensions or prostheses and that also explores their response to different physical and even virtual environments.

Having been a gymnast in her youth, Bufano required the amputation of her feet and her fingers after an infection. Despite this, or perhaps being inspired by it, she decided to incorporate the performative activity to her artistic production, which up until then included sculpture and digital media. For her performances, she designed enigmatic prostheses suggesting the extremities of birds or insects, although not natural beings, but rather entities originating from dreams or literature.

As she herself says, what she lacked and the changes on how she perceived herself in terms of size, weight or gravity prompted her to explore the multitude of possibilities for a

body that, due to these extensions, could eventually become many different bodies. One foot, could become many possible feet. Limbs to move around on stage, and also under water or through the air, with performances in swimming pools and aerial theatre, or completely virtual performances, thanks to stop motion and digital postproduction.

Her expanded movements, otherwise impossible, are the result of reconfiguring her body and its possibilities, which combine nature and artifact, dream and reality, fiction and nightmare.

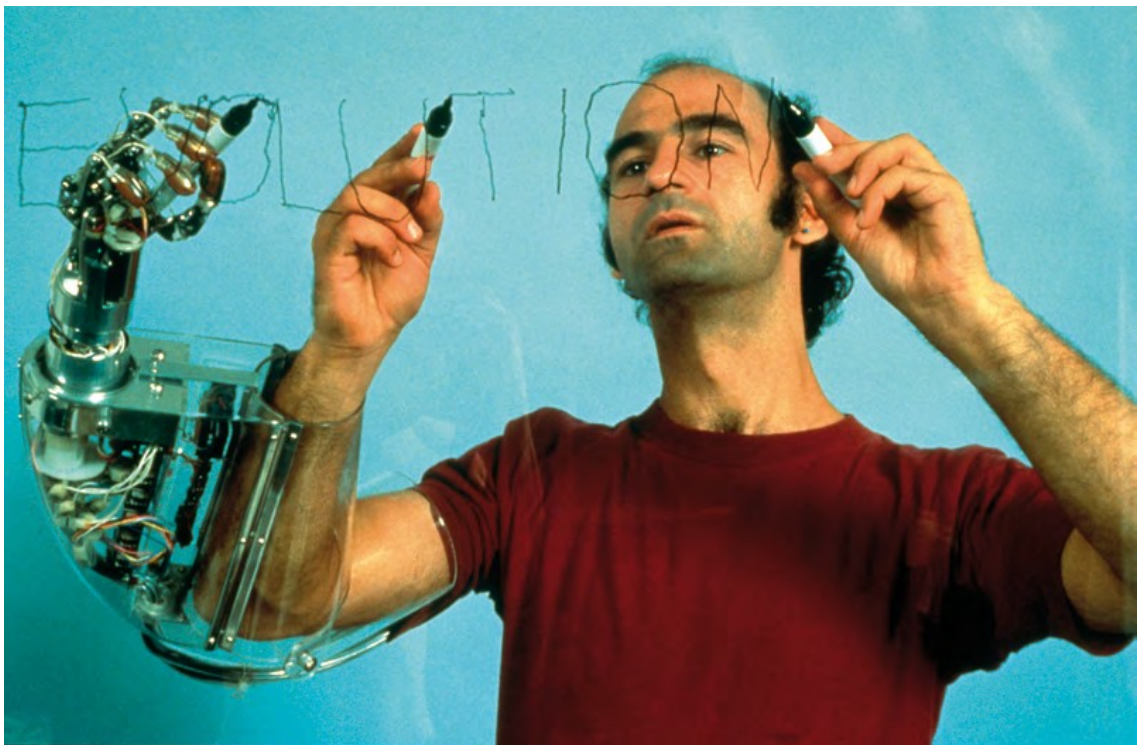
Eva y Franco Mattes

Synthetic performances: Reenactments

Second Life is, by definition, a second take, a second world or a second chance. Even though what happens there happens in real time, the time shared between SL (Second Life) and RL (Real Life) can be perceived as different: with an imperceptible delay, of the copy, of the simulation. The "now" in SL is a mediated and translated evocation, though with a radical difference, of a pre-existing world already known and previously experienced. From here, the synthetic performances developed by Eva and Franco Mattes in SL make greater sense, as *reenactments* (recreations) of previous famous performances by other RL artists. For this, they also take advantage of another feature of the Internet: the proliferation of multiple personalities, fraudsters and identity theft. Thus, it will be "natural" to see them change their *skin* and, alternatively, become the avatars of Marina Abramovic, Joseph Beuys, Gilbert and George, Vito Acconci and Chris Burden.

Being in SL is to exist and not to exist, it is to move and to remain still. It is to share the present and relate, not just textually but also visually, however, without the need to move: it is sufficient to "teleport" and instantly appear in any remote place within SL.

While technology has expanded our possibilities of moving through extensions of the body, whether using body prosthetics, wheels, exoskeletons or drones, the annulment of the physical body and its transformation into a digital object makes it unnecessary to move at all. While using SL, an actual movement is not made, since, unlike telepresence, where there is a superimposition of actions from two distant places (for example, we can imagine remote surgery using local robotic arms), in SL, the encounters occur in locations that are not even a place: a digital space without coordinates, without limits or boundaries that correspond to the laws of physics. In SL, geography and anatomy respond to a different set of rules: our body depends on our imagination and not genetics, we furrow skies of synthetic sunsets, we flyi over cities that develop and mutate uncontrollably. We speak with subjects with blue skin or a fly's head, and maybe we can buy, for a few *Linden* ($L), dance moves, smiles or amatory postures in order to have virtual sex in a sumptuous futuristic palace or in some dark digital den. Or one may participate in a virtual demonstration, along with dozens of other avatars, just as outraged as each other, carrying banners and releasing screams in response to a RL conflict. Everyone, together in no place, each one from their own place.



Stelarc
Third arm

Within his line of research into the obsolescence of the body, which he contrasts with the pursuit of an artificially expanded body[14], Stelarc developed a mechanical arm that could be attached to his right arm, which he used during various performances, from 1980 until the end of the previous century.

Built with parts made of steel, latex, electrodes, cables and batteries, highlighting their artificialness, in contrast to his naked body, the arm ends in a third hand that is controlled by amplifying electrical signals from other muscles, from his legs of abdomen, thus, achieving independent movement for his three hands. This third hand has prehensile capabilities, rotating 290 degrees in both directions, with tactile sensitivity.

The human hand is considered to be an extension of the brain, but at the same time, it is the hand that has shaped it and that has helped it to develop, from the primate stages until modern humans. The hand ceased its simple function as an aid for moving around, taking on the role of defence or gathering, but fundamentally for the role of creation, and finally that of thought. Manipulating an object to observe it and understand it is part of the process of reflection.

A third arm and, consequently, a third hand, would constrain, rather than be an extension of the capabilities of manipulation, being an evolutionary challenge for the brain. This is perhaps what Stelarc proposes in one of his performances, while writing simultaneously with three hands, the word EVOLUTION.

Peter William Holden

SoleNoid

[14] In an interview, published on the online journal, CTheory, in 1995, Stelarc threshed out phrases, such as the following: "The body lacks of modular design (...) Technology is what defines the meaning of being human, it's part of being human. (...) Especially living in the information age, the body is biologically inadequate. (...) Electronic space becomes a medium of action rather than information".

SoleNoid is an installation or robotic choreography that emulates tap dance. Formed by complex machinery made of electronic circuits, motors, tensioners, cables and compressed air, which emerges and demands our attention, are eight shoes (or four pairs?) performing a mechanical musical, both rigorously rhythmical and tirelessly.

This "representation" partly reminds us of the *Ballet Mecanique* or the *Triadisches Ballett*, and, at the same time, Esther Williams' aquatic choreography, where we can observe that which is human appears and becomes the central element, primarily due to its absence. Nothing more than the emulation of their movements and body and interpretive functions. The shoes are there, but there are no feet or legs. There are no tendons or muscles, instead there are springs, electricity and vacuum pumps. No strenuous rehearsals are needed to ensure that each learns their steps, since they are programmed algorithmically. Nor are rehearsals need to coordinate the dancers, as the entire system is operated by a single electronic brain. The flesh and bone interpreter has vanished and the only human presence is that of the public. Although, for the system this is actually irrelevant: what keeps it in motion is electricity and not the applause.

Ángel Baltasar

Slow fugaz

This work is a retake on a piece of public art that the artist installed at Nuñez de Balboa Station on the Madrid Metro in 1986. He hung a painting, 15 centimetres high by 7 metres long, and took advantage of the movement of the observer, who was being carried along the moving walkway, in order to achieve a certain inverted kinetic effect where it was the eye that moved. In this new version, Baltasar records this painting via an electronic eye, while in motion (the camera) and takes it, in video format, to the exhibition space.

In the painting, Baltasar has already indicated the trend toward anonymity, overcrowding and the gradual elimination of individual traits. Being passengers at the station, as seen from the train, we can only identify forms, but never individuals. The speed prevents us stopping

and developing personal dialogues, dramas, dreams or struggles; we only perceive trends, shadows, or uncountable crowds. The artist says that this work was nurtured by the influence of *The Pilgrimage of San Isidro*, one of the Black Paintings by Goya. As such, its uses sombre and dark tones, creating a contorted vision, just like the images of the metro. And where it can also be seen in the painting by Goya, all types of people and social classes are jumbled together, both in the pilgrimage and the metro. Their final destination, in both cases, was also the transposition of places and media. *The Pilgrimage* was originally painted on the wall of his house and later transferred to canvas, finally resting at the Museo del Prado.

SECCION 3

Memory and artificial intelligence

Data bases, artificial neural networks, Big Data, object detection, facial recognition.

It is not only the scope of action of the body, but fundamentally that of the mind, which expands with the technological contribution. Many of the reasoning tasks that we do today are supported by machines, by making use of both their calculation speed and their unlimited memory capacity. We delegate a variety of actions to devices, trivial ones such as remembering a telephone number to the performance of somewhat more complex calculations such as those necessary to place the New Horizons probe at the gates of Pluto to discover that it has a blue sky and is bathed in frozen water.

The "electronic brain", which once filled enormous rooms and required enormous amounts of energy, are today miniaturised and reproduced to such an extent that we can no longer tell which devices have them and which do not. Smart objects with distributed reasoning, operating almost autonomously and in a network, not only assist us but on occasions seem to ignore our presence, hidden behind all kinds of functionalities: control, amusement, production, transport, safety, etc. Electrical appliances, watches, automobiles, as well as transit control centres, banking and quality control systems are governed by artificial reasoning.

Desensitised as we are, it no longer seems worth the bother considering that question by Alan Turing which unleashed this deluge: Can machines think?[15]
Today we see it as something natural, and perhaps it is, if we recall how on the anniversary of the death of the English mathematician, in July 2014, a computer finally managed to pass the test created to differentiate between a human and a machine: the famous Turing Test. On this occasion, the "Ukrainian adolescent" Eugene Goostman, who in reality is a computer program, managed to fool a jury of the Royal Society of London for the first time in history.

[15] It is with this suggestive question that Alan Turing opens his piece "Computing Machinery and Intelligence", published in the October 1950 edition of the British philosophy magazine Mind. This fundamental article for the development of Artificial Intelligence lays out the concept of what would later become called the Turing Test.

Since those hours of frantic work in Bletchly Park to decipher secret Nazi codes using the Enigma machine, the dynamic of the evolution of computers and their algorithms has been worthy of various interpretations and has given rise to several prospects.

If in the last century artificial intelligence was strongly linked to a specific object, the computer, in the age of the internet, algorithms have managed to become independent from their "body" and today travel through the networks voraciously processing all information in their path.

Its millions of electronic eyes and ears capture thousands of Exabytes[16] which will be stored in hundreds of databases, an enormous flow of records that make up what has become known as Big Data. Wherever we look, the algorithms of Artificial Intelligence constantly manage and organise this mass of information, which is unassailable by man. Everything is measured and stored: from the data generated by humans (through social networks, e-mail or Google searches), to transaction footprints (purchases, transfers, invoicing, telephone calls), those that our body leaves behind (digital footprints and DNA, facial images or tattoo registers), and even those generated by the machines themselves, (those produced by light, sound, height and pressures sensors, or those resulting from machine to machine communications).

Artificial Intelligence tools are evolving almost as fast as data is accumulated. Based on artificial neural networks, the latest advances are getting both large corporations and intelligence agencies fired up. These would be capable of storing and processing not only the structured data, which can be included in a spreadsheet, but also all kinds of data that can be stored in any type of registry, from meaningless satellite images to those of a supermarket car park. Big Data will appear small alongside the new colossus: Gargantuan Data.

The algorithms behind these databases also generate their own economy model, to which we shall have to adapt. In this consumption model, what we see is a new type of relationship between man and machine, in which the algorithm takes the place of control. For example, this is what happens with the platforms that form what is known as *sharing economy*, in other words, those models which, are based on collaborative consumption through an online digital platform, i.e. Uber or Blablacar. Although "human" participation is fundamental in this assemblage, with regards the behaviour of the driver and the subsequent evaluation of the user which can make the former's score go up or down, the who or what that really controls all the relationships is the algorithm. For an Uber driver, the algorithm is the boss.

The new economies are based more and more on our free and voluntary work, this being in the form of searches on the internet, *likes* on social networks or recommendations for online stores, forming something that we could define as a "surplus value of the intimate". But at the same time, our clicks generate a productive spiral which will determine the future of the objects of consumption. Our flow of data, the information we leave on the internet, is used in the design of new products and then transformed into a flow of goods, which will continue

[16] An Exabyte is a unit of storage equivalent to 1024 Petrabytes and each Petrabyte 1024 Terabytes. It is calculated that all the information on the Internet is around 300 to 400 Exabytes and everything that Google processes is around 2 Petrabytes.

to produce data. “Data driven” products (products designed from data), have already begun to flood the market. This does not only refer to technological gadgets, but also cultural products, books, films or even political speeches.

Making the invisible visible is the usual task of any artistic work. In this group of works, what is being pursued is to open the black box of technology, to lay bare its code, its algorithms and the infrastructures that make it possible, to decipher its *codecs*. Whether through irony, resistance or paradox, detecting this eruption of the digital in the physical (which will later result in the materiality of the exposed work) is perhaps to detect the symptom of these new relationships or, as McLuhan would say, of our relationship with this new “environment” in which the new digital technologies have placed us.

Kyle McDonald

Exhausting a crowd

This project by Kyle McDonald continues with the idea from the book *An Attempt at Exhausting a Place in Paris*, by Georges Perec, in which the author, located at the Place Saint-Sulpice, recorded everything that happened over a three-day period, including the insignificant, usually not worth even mentioning. McDonald has choosed a public space in London, and analysed it for a period of twelve hours. But unlike the action of Peret, in 1974, this is not the writer, but a machine performing this painstaking task, using an automation process for recognition and tagging. The result, published on an Internet webpage, provides a foretaste of what may become a habitual process in the not too distant future.

This new panoptic structure of the new digital stage consists of artificial vision systems, linked to facial recognition and movement algorithms and to artificial smart motors that detect, tagg and interpret every inconsequential action, every trivial situation to then convert it into data. The data is stored on gigantic databases that, since they are unmanageable by human capabilities, may only be read by machines. As Kittler would say, "What remains of people, is what media can store and communicate. What counts are not the messages or the content with which they equip so-called souls for the duration of a technological era, but rather (and in strict accordance with McLuhan) their circuits, the very schematism of perceptibility". (Kittler, 1999: xl–xli)

Paloma Navares

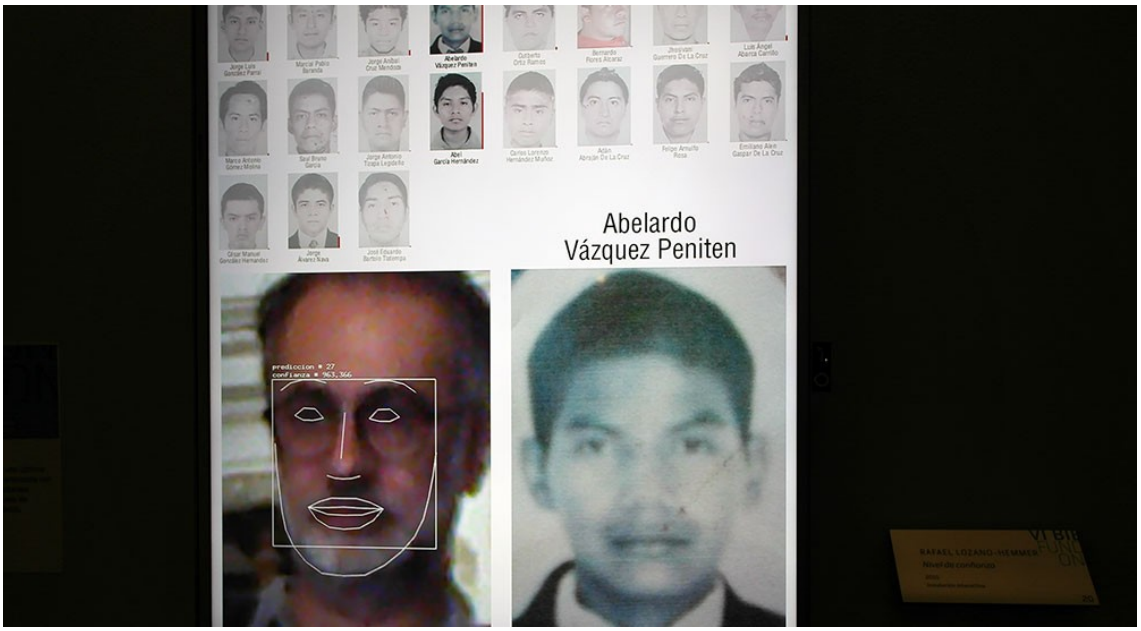
Milenia/ De híbridos, artificios y seducción,

This installation, by Paloma Navares, recreates and recovers elements from her series of works made in the 90s, particularly *Milenia* and *Productos Navares*, those that explored the concept of artificial beauty. Artificial, as technology contrasts what is natural, (that which is given, organic), but essentially an "artifice": a lattice made of leather and plastic, blood and electricity, a hoax, a simulacrum.

Amassed and mixed within its aseptic wrapping, we are presented with a variety of products, fragments of the body, spare parts or extensions, whose purpose is to abandon the tyranny of our genes and set ourselves forth, thanks to technology, into the ecstasy of the multiple, the interchangeable "self".

Technology presented by Navares in this series, corresponding to the 90s, is far from that of today, of the postinternet, the 2.0. Its aesthetics is linked to posthumanism, even cyberpunk, where digital technology lay dormant, as a revolutionary seed from which we had no idea what tree, vine or bush would emerge.

Its presence, in dialogue with contemporary works, makes it clearly evident that this is a different approach. At the moment in which the concept of being cyborg was finally focused on the human -based on McLuhan's ideas on technology as an extension of the body-, and our contemporaneity, where devices regulate and discipline our bodies - being more in line with the ideas of F. Kittler-. In the current context, technology has ceased to belong to the imaginary future and it has become the "environment" that shapes our routines. It has shed its romantic aspect and it is no longer a future -neither utopian nor dystopian-: it is just an eternal present, pierced by the logic of code.

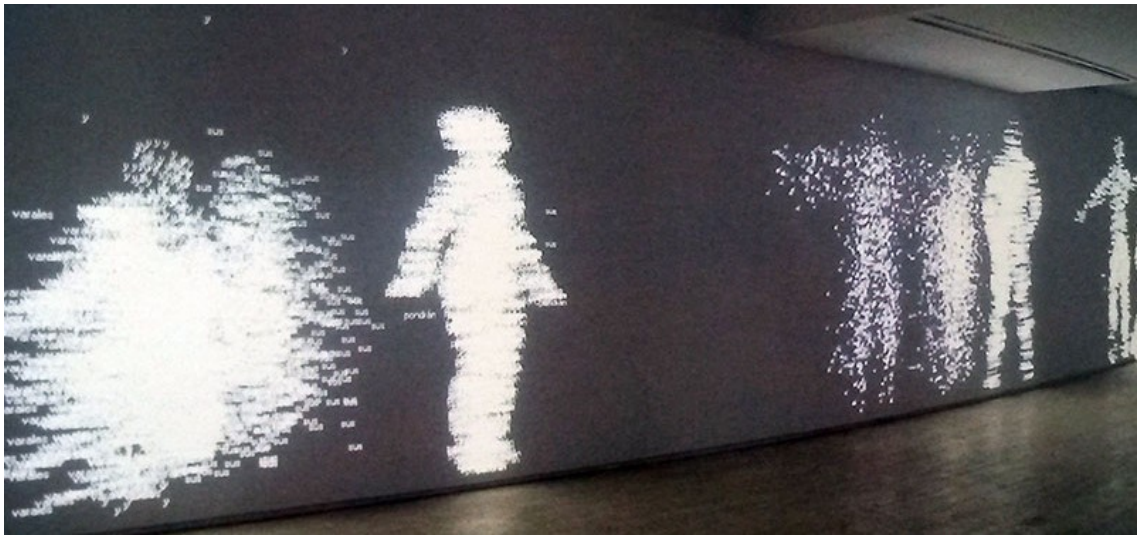


Rafael Lozano-Hemmer
Level Of Confidence

Level Of Confidence is an interactive piece that consists of a camera and a facial recognition system, taught to scan for the faces of the forty-three students who disappeared from Ayotzinapa School, a village in Guerrero State, Mexico. The viewer, while standing in front of this work, is observed by the system, which, after conducting the search, confirms if this person is one of the students or not. In exchange, it displays the face of the student who look most like the viewer and its "Level Of Confidence"-an expression indicating the percentage of biometry accuracy of a particular calculation-.

Lozano-Hemmer inverts the functionality of a social control device, such as facial recognition, commonly used by intelligence agencies, and converts it into a tool for citizen defence and as a basis to appeal against the abuse of power. Within the underworld of human beings, this digital Sisyphus is compelled to search among all the faces of the public, attempting to find a student, in an effort that is already understood as being pointless. But, in fact, the search is other: that of highlighting a tenacious act, a Sisyphean effort, the seek of justice pursued by the families of those missing at Ayotzinapa.

The work places the viewer in the centre of the scene, melds his or her face into that of one of the students, and permits us to imagine, during a brief moment of confusion, that this may have been the viewer's own destiny.



Charles Sandison

Figures & Letters

At this installation, as in others of the same artist, we witness a projection, within a dark room, of a series of flowing letters and words that become recognisable figures, and moments later, they vanish like whirlpools and reassemble themselves only to become other images. This process is generative, this is to say that there is no predetermined linearity in the shapes they configure, but what is established is a series of algorithms, from which a chaotic and unpredictable order creates a visual narrative. A narrative that is not enunciated by a natural or representative language, but rather written in code - ones and zeros-.

In this particular work, Sandison takes texts from Genesis - the Bible being a paradigm of the book, of the enduring and invariable-, and transforms it into a mutant and non-linear generative narrative. A luminous book with as many narratives as there are viewers witness it, became digital exegetes of a random text.

Maite Cajaraville y Gisle Frøysland

From DNA to NSA

During the era of Big Data, it is increasingly more difficult not only to keep data private, but to define what should be considered as public and what should not. We leave behind electronic traces along with all of our transactions, whether it is shopping, travelling along the underground or *likes* on social networks. We leave trails of our image in traffic and surveillance cameras or just through tourists, as we photobomb them. We leave behind traces of our DNA in public spaces, when we discard cigarettes and used glasses or as our hair falls out. Should we apply copyright laws for the use of this data? Should we choose a Creative Commons licence? Should they be, instead, free and part of the public good?

Some of these questions may be asked at this installation, by Cajaraville and Frøysland, which consists of a *do it yourself* DNA collection laboratory, where the public may leave their own samples and even mix them with the genetic material of other visitors. In the meantime, we can see several screens that emit a sequence of sounds and visual codes, by transcribing information in real-time from a DNA database hosted on the Internet.

The project resumes a series of issues on the activities of companies dedicated to the management of genetic information, its commercial exploitation and its research into improving the "health" of the human species, and, in some cases, either under state regulation or where they have managed to escape such control. This is the case of deCODE, an Icelandic company that, for years, had the freedom of management concerning these issues and, due to issues of privacy, the state decided to reduce its scope. Finally, due to financial pressures, it sold most of this information to a Chinese company. As the artists themselves are questioning, behind these veiled businesses: What is the market value of DNA? What is its business model? Will DNA-based algorithms govern our social life?

Cuco Suárez
Ferramienta

In this series, Cuco Suarez presents a series of works with a common theme: tools. He has done this through a drawing, simplified to the extreme, schematic, using only two colours -red and black-, which could be suggestive of 8-bit computer icons, like ideograms or elements of a

coding system. The selected tools are very elemental, almost like letters: basic units from which we can build a very complex system.

Two of these works are forced to be looked at distinctly. Within these, a "real" tool, painted in red, is placed on the wall and a vast shadow of black paint peels away from it. If we were able to perceive a simplified representative system in the previous works -symbols and meanings-, here the levels both diverge and overlap. The "real" tool ceases being such, by being painted in red, and becomes a symbol. Its imaginary shadow, not created by darkness, but rather black paint, is projected from both the real and represented tool.

SECCION 4

Disruptive nature of technology

quantum algorithm, Think different, fuzzy logic, Gargantuan Data, hacktivismo, decoding, paranoiac-critical method, body without organs.

As we mentioned earlier, we find ourselves in a continuous process of digitalisation. But this process will not only bring about the disappearance of other storage supports but will also make the media themselves disappear. Kittler takes McLuhan's remediation theory to the extreme - that all media becomes the content of other media-, maintaining that the appearance of the digital and fibre optic technologies will cause everything to converge towards a single containing media: the digital format.[17]

However, it is worth asking: Where does that leave the non-computable? What happens to everything that drains like water, without leaving anything trapped in the nets of code? Kittler, quoting Lacan, will say that the Real, which is beyond appearance and outside of language, escapes any kind of symbolisation. However, he marks a difference with other types of languages: "The computer code is not representative. Its structure of ones and zeros is moulded by the hardware, it comes out without generating anything, or any sign that is recognisable by man"[19]. Guattari defines it as one of the asignifying semiotics and as such, assigns it a deterritorialising and machinocentric effect.

But the same question we pose about the code, about what is or is not computable, can be asked about art. Surrealism for example, through practices such as automatism or oneiric immersion, tries to take the realm of art beyond the frontier of reality and the "codeable"

[17] Kittler, F. (1999) *Gramophone, Film, Typewriter*. Stanford, California : Stanford University Press.
[18] Kittler F. (2009) *Optical Media*. Cambridge, UK: Politi Press.
[19] Computing is based on discreteness: it isolates elements The physical world is continuous, it is maximum connectivity. According to Kittler, the only way to make the world "computable" is with "pure hardware" which does not need software.

experience, by going deeper into the unconscious. But it may have been Salvador Dalí who took this path to the extreme by proposing his paranoiac-critical method.

Dalí, like many of the surrealists, had found a fertile source of inspiration in Freud. But it would be his encounters with Lacan, who wanted to meet him after reading an initial statement about his method in the magazine *El Surrealismo al servicio de la Revolución*, when he would finish defining his theory, for which he would channel and use his own paranoiac deliriums for his production. In his book "El mito trágico del angelus de Millet"[The Tragic Myth of Millet's Angelus] he states that "…the human brain, thanks to its paranoiac-critical activity, is capable of functioning as a viscous, cybernetic and highly artistic machine".

As we can see, Dalí's interest in observing reality beyond Cartesian logic brought him closer not only to psychoanalysis but also to science, and in particular to another fundamental theory of the 20th century, quantum physics. He even said: "My father is no longer Freud, but Heisenberg".

But is there anything more opposite to computing than the indeterminacy of quantum physics? Do they belong to different, irreconcilable worlds? The answer is no. If we consider that Google and NASA have both spent 15 million dollars on buying a D-Wave Two, a quantum computer whose calculation speed is 3600 times faster than a normal computer. The difference: as its components are on a nanometric scale, these stop obeying the laws of conventional physics and start obeying the laws of quantum physics. In other words, instead of managing bits (ones or zeros), it uses qubits (ones and zeros at the same time). Nowadays, even though one of these computers occupies large installations, will the day come when our smartphones handle quantum algorithms?

This is not the only divergent manner to traditional logic in terms of computing paradigms. We should add other investigations such as fuzzy logic or DNA computing. In reality, within the dynamics of the evolution of digital technologies is where the germ of disruption makes its home: returning back to McLuhan's tetrad, one media will always replace another. *Think Different* is more than just a slogan[20] it has become a flag and a whole evolutionary strategy.

In the field of art, there have been many creators who, throughout the 20th century and even today, have rebelled against the tyranny of code, in one way or another. One of the most paradigmatic examples is Antonin Artaud. In his radiophonic play "Pour finir avec le jugement de Dieu" [To Have Done With The Judgment Of God], for example, he prepares his search for a body without organs, calling for rebellion against the organism, the figure of order, and fundamentally, against the way in which language is structured. This notion of a "body without organs" would be key for Gilles Deleuze and Félix Guattari when forming their theory of schizoanalysis. Deleuze would say: "What Artaud calls God, is the organiser of the organism. His writings form part of the great temptations to make the flows pass below and through the

[20] Think Different is an advertising slogan created by Apple Computer in 1997 which was used in a famous television advertisement and in several printed advertisements for Apple products.

nets of codes, whatever they may be, it is the greatest temptation for decoding writing. What is called cruelty is a decoding process"[21]

That which is different, that which is inadequate and that which can be seen in one way and also another, that which we cannot put into words, and that which is maintained in a different logic, will be the topic that is present in the works that form this section.

Salvador Dalí

Las Meninas (The Maids-in-Waiting) (Stereoscopic Work) and VR glasses for 3D viewing.

Within his text, *Declaration of the Independence of the Imagination and the Rights of Man to His Own Madness*, Dalí clearly stated his defence of the irrational, of the unconscious, of what cannot be entrapped inside the grey nets of common sense. A quest that linked him, at the time, to the Surrealist movement.

However, unlike the passive techniques of surrealism-uncontrolled dreams and automatic productions-, Dalí formulated a new creative strategy, one that introduces an element of control. During the opening activity and immersion in the unconscious, he included the analysis of a previously experienced "delirium", as he stated in his 1930 article, titled "The Rotting Donkey"[22], in which he presented his paranoiac-critical method[23].

[21] Deleuze, Gilles (2005). *Derrames: entre el capitalismo y la esquizofrenia*. Buenos Aires: Cactus.

[22] Published in the journal, *El Surrealismo al servicio de la Revolución*, No. 1, July 1930.

[23] Dalí defines it as the following: "Paranoiac Activity: a spontaneous method of irrational knowledge based on the interpretive critical association of delirious phenomena" (Dalí, The Conquest of the Irrational, 1935).

Dalí argued that during the delirium itself, elements and meanings appear, which then, at a critical stage, become structured and disclose themselves[24]. In his own words: "The delusion would present itself as the bearer of the seed and the structure of the systematisation: therefore, the productive value of such form of mental activity."

This formulation of the paranoiac-critical method, and, above all, the idea that the structure developed under delirium is found for the most part contained within the details of the elementary phenomenon itself, influencing Lacan, who, after a meeting with Dalí - where both would share their ideas-, will complete his concept of "paranoiac knowledge"[25].

Dalí develop a thorough analysis of his own delusions in his book, titled *The Tragic Myth of Millet's Angelus*. Through this method and in relation to this painting, he completed countless pieces, among them, perhaps the most emblematic of them all, the *Architectonic Angelus*, which was produced during the same year.

In this book, Dalí also makes a connection between the paranoiac mechanism and quantum theory. He establishes a parallel between the active presence of the subject during the delirium, and the interpretation of reality, and the presence of an observer during a quantum experiment, as raised by Erwin Schrödinger, who claimed that the mere act of observing changes the state of the system.

His interest in science continued throughout his life, but it was not until his later years that he began working extensively on optical experiments. Some of this research employed the use of stereograms - with the assistance of computers-, as was the case of *Cybernetic Odalisque* (1973), and the pairs of stereoscopic paintings, such as *The Eye of the Angelus* (1978)-where he once again continued his obsession with Millet's painting-, and *Las Meninas (The Maids-In-Waiting)* (1975-1976).

Much has been written about the complex play of glances of *Las Meninas*, by Velázquez, leading to differing interpretations, among which are those of Foucault and Lacan. In this recreation of the Sevillian artist's painting, Dalí incorporates further levels of representation, further plays on reflexes, triggering an endless Baroque-paranoid spiral of possible interpretations.

In Dalí's stereoscopic pair, at the centre, we can see the image of a simplified representation of the original work, where he has removed the secondary figures. Continuing from the analyses of Velázquez's painting, we can initiate further interpretations by analysing this recreation by Dalí.

In the original work, there is a play on gazes, where the starting point is Velázquez being represented, who looks to where the models of the painting would have been, as he was painting them. We do not see the models, nor their representation in the painting, since the

[24] "Critical activity intervenes uniquely as a liquid revealer of images, associations, coherences and severe systematic subtleties, which already exist, at the moment in which delirious instantaneity occurs" (Dalí, ibid.)

[25] Lacan made a distinction between knowledge, which he relates to the imaginary, and knowing, symbolic in nature. The imaginary knowledge of a child about himself, transferred through the recognition of his own image, while looking into a mirror, he called "paranoiac knowledge". The lack of knowledge about themselves is also the structure of paranoid delirium, and indicates the place where the subject alienates themselves: their own image.

canvas can only be seen from behind. However, we can see, in a small mirror at the bottom of the scene, what the painter portrays, and we discover in the reflection that it is the royal couple. Foucault would have said that this location is established as the position of power in the scene: still outside of the picture, being the focus of all gazes, which even escapes being represented. It is the place where the king and queen are found, although, also, right between both, it is the place of the viewer and actual location of "real" Velázquez-not that being represented-.

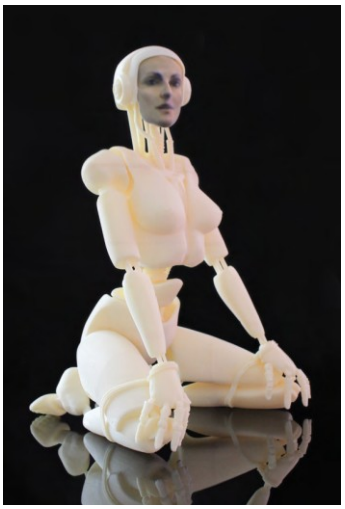
In the version by Dalí, this game in itself is complex, which includes another two layers, creating a variety of new spaces and new overlapping viewpoints.

Here, we also have a real Dalí and another represented Dalí - although we do not see either of them-, as well as two canvases, where one is represented and the other is real. In the real Dalí painting, we only see the representation of two objects: a brush and a painting that is being painted.

The painting that is being painted by the represented Dalí is not hidden, as in that by Velázquez, but rather occupies the central place: evidenced in the same manner of a *trompe-l'oeil*.

Of the represented Dalí, we can only see his brush, as the painter is not found within the painting itself, taking the place of the king, to the right of the place of the real painter-either Dalí or Velázquez-. To the left and offstage, is the represented Gala, of which we only see her shadow. However, the represented Gala and her shadow are not in the main painting, but rather in the *trompe-l'oeil*: She and Dalí remain in separate planes of existence and her shadow shares the plane of the shadow of the artist's brush - whose hand does not cast its own shadow-.

The *trompe-l'oeil* painting that is being painted does not reflect an indoor scene, like that of Velázquez, but occurs outdoors, under a sky at sunset. The scene is none other than that of *Angelus of Millet*, where both figures of the peasant couple have been displaced. Depending on the layer of representation that we wish to employ, its place is now occupied by the royal couple, by Gala and Dalí, or by both eyes of the viewer which observe this stereoscopic painting.


France Cadet

Flying Pig / CyberLesson / HoloLesson

Within her work, France Cadet has frequently incorporated the domestic robot, either in its materiality or in an imaginary social context as a consumer product. The artist manipulates them, diverts their functionality, and, in some instances, appropriates and undermines the advertising discourse surrounding them.

For example, *Flying Pig*, forms part of the Dog[LAB] series, being one of seven dog-robots that have been transformed, hacked and reprogrammed by the artist. After her intervention, the appearance and behaviour of these new robots are now a hybrid of various species: dogs, cats, cows, pigs, sheep and even humans.

In *CyberLesson* and *HoloLesson*, Cadet commenced with the appropriation and digression of a widely known lingerie advertising, which prompted her to produce two cyborg versions of herself: one as an object - using 3D printing-, and the other as a virtual image, using a holographic projection.

In both cases, Cadet takes advantage of an advertising campaign for a brand of lingerie - called 'les leçons de séductions'-, which she intervenes. Instead of the human model of the original poster, on her knees, offering her body on exhibition, we find her robotic version, also on her knees, reminding us of a hentai character or a Japanese android. In other words, a consumer product for erotic satisfaction.

The latent issue for both cases is the same: Will these android behaviours be driven by their own needs? Or will they be only a product of programming? Are we interacting with an entity like ourselves? Or are we interacting with a simulation, with a vortex of algorithms, with a ghost inside a machine?
And mostly: Is there really any difference?

Dora García

Heartbeat / Hearing Voices

A particular cyclical sound appears to obsess the characters of *Heartbeat*; that of their own heart.

Secretly, and without anyone having noticed it thus far, a new trend has extended itself among our youth: the vicious habit of listening exclusively to their own heartbeat. Those who have come to call themselves "heartbeaters" suffer from an altered perception of what is real, the outside world being reduced to a mere echo of their own interiors. This innermost percussion influences thoughts and behaviours, and it is addictive.

As in other works, the artist speaks to us of parallel societies, shared codes and of obsession as a method of approaching the outside world. In this case, it speaks of a network within a network - the Internet-, utilising a hypertext format. The disjointed narration, and, at the same time, cyclical, leads us to forget that every travel has an end. Although, for these characters, the end of the voyage buries a more valuable treasure. As Dora García reminds us, *"the deep desire for all heartbeaters is to witness their own death, that is, to hear the very last beat of their heart."*

In another of her works - one of her more recent-, she also uses the structure of the network, the activity in groups and, especially, the "listening". It shall no longer be the network of who listens to the heartbeats, but rather, in this case, the "voice listener movement". This is the *Hearing Voices* project, in which the artist brings for discussion, in the form of regular get-togethers in a cafe, the theme of the established models of mental illness, resuming the practices of anti-psychiatry. These groups of people that "heard voices", which started to occur in the 70s, considered themselves more like a civil rights movement, rather than a self-therapy tool. A group that could be honoured for including, among its ranks, names like Socrates, Saint Teresa, Robert Walser or Philip K. Dick.

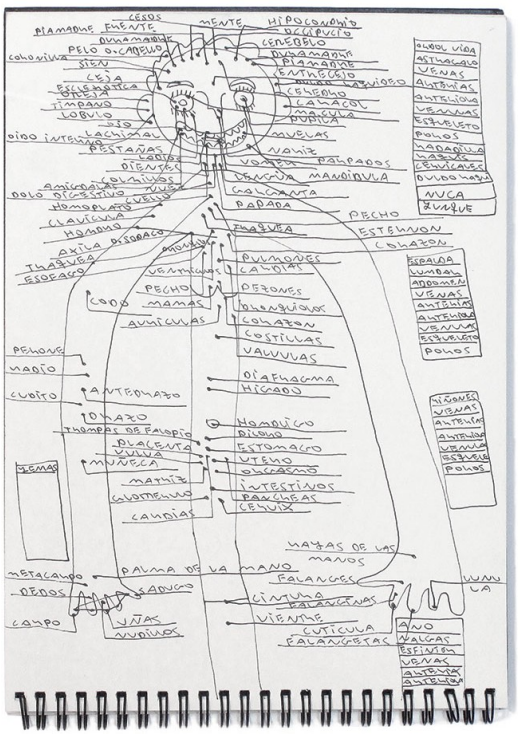
The project has been undertaken at several cities, starting in a bar in Hamburg, whose name is suggestive: Traumzeit Café. The dream appears to be a realm where the discretion between health and disease loses all meaning.

Eugenio Ampudia

Workstation

Workstation is a life-size sculpture of a laptop. At first glance it could be taken as a monument for digital technology, in an attempt to make such everlasting, whose most distinctive feature is to be ephemeral. As fleeting as the information stored on RAM, when the power supply is being cut.

In is nature as a "monument", *Workstation* insulates function from form, turns immobile what is mobile and "portable" and commemorates, through each one of us, those of its kind. However, if we look closer, we notice the monument has something missing, one of the most important qualities: permanence. Carved in alabaster, its structure is fragile, soft and easily damaged. Furthermore, it is translucent and on its "screen" we can only see a consistent light -no moving pixels-, which evokes a small window of a medieval church rather than a contact interface, a working and negotiation surface between human and machine.



Andrés Fernández

Sin título

A través de imágenes y textos, el artista nos comparte un complejo mundo en el cual podemos identificar figuras recurrentes, preguntas y obsesiones, una maquinaria simbólica oculta que se irá revelando siempre en fragmentos.

Using images and text, the artist shares with us a complex world in which we can identify recurring figures, questions and obsessions, a hidden symbolic machine that always reveals itself in fragments.

Among these recurring elements, we can see attempts to organise, from total subjectivity, the world around him. For example, through its specific cartographies, which may have its centre at the workshop at Matadero[26] where he works, and that finishes in the remote areas of outer space. We also find lists or catalogues, whether they are parts of the human body, available WiFi networks or of the rigorously timed actions they perceive. Yet, one of the most elaborate elements that is displayed to us, through schemes and representations, is what he calls the mechanics of making a baby.

From his diagrams, he shows us an avenue, a path containing numerous stops, which starts at the stars, passes through Cundinamarca, Kazakhstan or Salamanca, to always finish at the Rios Rosas Metro Station: the final stop of the birth canal.

Its graphics, its lists, its diagrams, all respond to another logic. Its catalogue of the body does not correspond to the order of a taxonomy, but rather, if at all, to a folksonomy. They do not describe the role of an organism but list, without any priority, fragments of an “body without organs ".

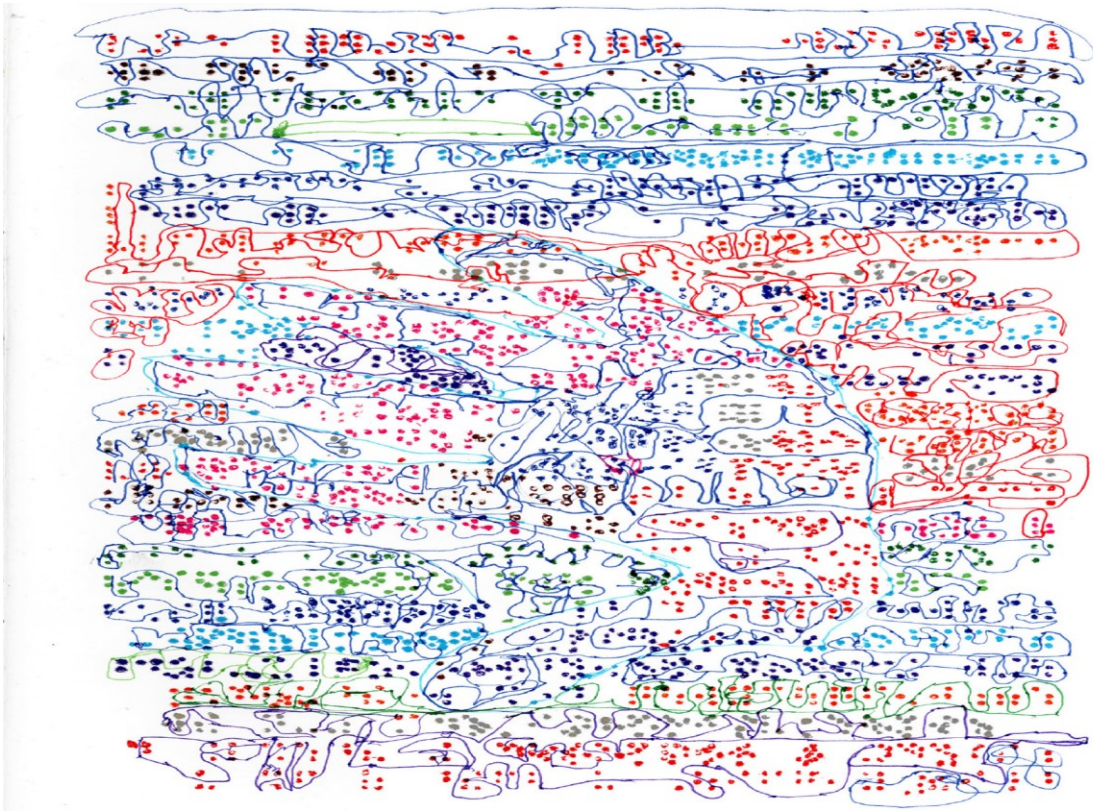
[26] Andrés Fernández attends the Debajo del Sombrero Association, a Platform for Contemporary Creation, targeted for people with intellectual disabilities at Matadero, Madrid.

Dolly Sen

Various works

Dolly Sen, draws on our experiences as digital users and proposes to share other points of view, in order to make decisions on unwanted browsing, or through the use of irony, to explore the detours of computer and social systems.

With digital productions and websites, and also through videos and her work as a writer, Sen explores her own psychotic events and investigates and brings forth the debate over the definition of mental health, and by extension, all types of classifications for human capabilities.



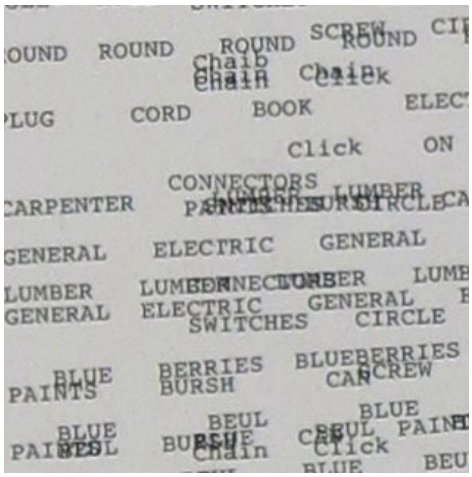
Karol Golebiowski

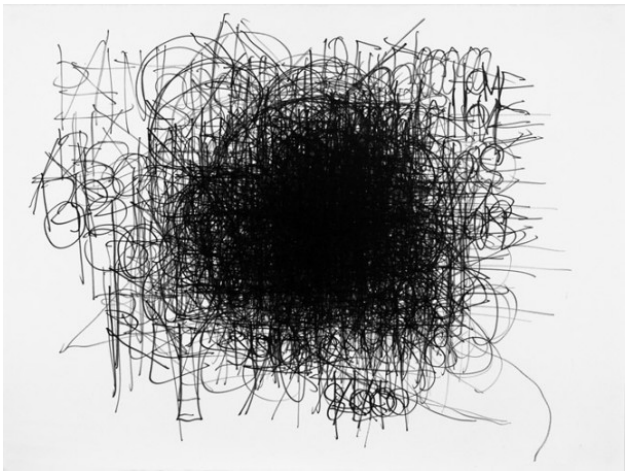
Untitled

Karol Golebiowski began to use coloured markers on a brochure of the German National Library for the Blind, written in braille, which, one day happened to land in his hands[27]. He ended up making a sketchbook, containing two simultaneously overlapping encodings: Braille texts -above which we can possibly imagine readers passing their fingers over, decoding them-, along with a new coloured script, registering the passing of Golebiowski's fingers. While clutching his markers, he travelled the paper, between the valleys of embossed Braille,

[27] Karol Golebiowski attends the *Thikwa* plastic arts workshop, an experimental initiative for the inclusion of artists, with and without disabilities, located in Berlin.

without following any map, getting lost among the trails, transforming passages into channels, detours, or mazes.





Dan Miller

Untitled

Connectors, switches, lamps, ON/OFF, General Electric... these are common words used by Dan Miller in his works, which form the structure of a typographic visual poetry, either mechanical or scriptural, and, at the same time, a possible music sheet for sound poetry, in which we “hear” recited sounds, almost as disjointed, overlapping, descriptive, but never narrative cries.

In his works, letters and words are repeated, one over another, becoming lost in mass of ink and that, being somewhere between being palimpsests and encrypted writing, barely becoming fully legible. Miller has been diagnosed with autism and his artistic strategies characterise his personal approach.

Vicente Talens

Engram

As explained by the artist, *Engrama* is a group comprised of three humanoids and six companion animals. Survivors of a hypothetical nuclear disaster, they have developed “pretzel ears” to communicate, they lack sexual organs and their cultural hunger is insatiable. While Talens leaves the interpretation of the title open to the public, the peculiar “mutation” of these humanoids invites us to watch this group from an artificial intelligence context. For the computational field and, especially, for the study of the interaction between computer and human languages, engram is the name given to artificial neural networks. Networks that operate in our environment, which we even use on a daily basis, for example every time we perform a search on Google.

Talens appears to take the reverse route. If artificial neurons collaborated and communicated with each other, emulating, yet converting human thought into machinic thought, then *Engram* would humanize and fictionalize the immateriality and coldness of artificial thought. Their communication algorithms become pretzel ears, the hierarchical conduct of perceptron presented as a singular humanoid family, their voracity in data processing as a cultural hunger.

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