
Estudis Escènics International Symposium

Live Art and Uncertain Technologies

Institut del Teatre. 3 and 4 October 2024

Introduction to the dossier by
Marc VILLANUEVA MIR

Programme

DAY 1. Thursday, 3 October 2024

TECHNOLOGY AS A BODY

Welcome

SCANNER ROOM

Opening. Marc VILLANUEVA and Xesca SALVÀ

Uncertain technologies (CAT)

Lecture

Lena NEWTON

Who laughs last on the hybrid stage? (ENG)

Break

AUDITORIUM

Presentations

Nil MARTÍN and Bani BRUSADIN

**A dance epidemic on screens: speculative presentialities
and new performativities on digital stages** (CAT)

Maria Mercè SAUMELL

Coexisting with robots: Shonen's School of Moon [2016] (CAT)

Jaume FERRETE

Larynx, oscillator (ESP)

Citlali HERNÁNDEZ

Body practices in the digital territory of the internet (ESP)

Break

Installation

FRAU Recerques Visuals

LOUQSOR/ANDROMÈDE. Journeys experienced, paradises described (CAT)**Workshop**

Jorge CABALLERO and Anna GIRALT

The body as an audiovisual creation tool with artificial intelligence (CAT)**DAY 2.** Friday, 4 October 2024**TECHNOLOGY AS TRANSFORMATION****Welcome****AUDITORIUM****Presentations**

Núria NIA

Stages of fluidity for non-divergent timelines (CAT)

Álvaro PASTOR

Augmenting reality: On the shared history of perceptual illusion and video projection mapping (ENG, virtual)

María GARCÍA VERA

Code translation and technology in the performing arts: interactions between the body and the cinematic image (CAT)

Ferran UTZET

On the idea of immersion (CAT)

Break

SCANNER ROOM**Lecture**

Chris van GOETHEM

Nothing is new, even if it's just invented (ENG)**Projection with commentary****Friccions** (ENG)

Break

Lecture

Kris VERDONCK

Between body and object (ENG)

Clara LAGUILLO and other participants of the symposium

Closing forum based on a genealogy of waiting and asynchrony (different languages))**Installation**

Júlia ROSSINYOL and Mercè LLEDÓS

FLUX**End of symposium**

Live Arts and Uncertain Technologies: Introduction to the Dossier

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English translation, Neil CHARLTON.

The radio and the spider

From a technical point of view, a crane operator and a stage technician do the same thing. The difference is that the stage technician tells a story, as the Belgian stage manager and researcher Chris van Goethem reminded us. Regardless of what meaning we want to attach to the concept of “story”, this simple comparison helps us to make distinctions and to erase them: it helps us to think about a possible distinction between technique and technology, or between world and theatre, or between meaning and sense. At the same time, it reminds us that theatre has never been separated from technology, nor the world from theatre, just because, as humans, we need to give meaning to what we do. This seemingly simple idea becomes extremely complex at a time when our mechanisms for explaining and constructing reality are undergoing a profound transformation that, as many of the speakers at this symposium emphasised, has less to do with a dizzying projection into the future (such as that which fuelled the technological imagination of the 1990s or the early 2000s) but with the unexpected emergences of the past.

In one of the first presentations in the symposium, Víctor Nubla invited us to listen to the background radiation of the universe, the echo of the Big Bang that can still be tuned into today with a shortwave radio. Víctor left us in 2020, in the midst of the pandemic, but his words could be briefly reincarnated thanks to two technologies that we all too often tend to take for granted: writing and voice. Plato famously rejected writing in *Phaedrus* (in writing, paradoxically) with the argument that knowledge acquired indirectly (through reading) would replace authentic knowledge, the knowledge that comes from experience. As far as we know, we have no record of the reactions to the first hominids who were able to modulate the sound of their

trachea, but we can assume that there was no lack of suspicion or violent opposition with which these types of changes are often received.

Both voice and writing are examples of technologies that have drastically changed the way we understand and explain the world to ourselves. The fact that voice is almost always explained as the result of a natural evolutionary process, while writing is attributed to a specifically human invention, obscures our understanding of the concept of technology, limiting it to a deceptive dialectic between nature and culture, object and subject, which ultimately leads us to master and slave. Technology is not an exclusively human phenomenon, as was also pointed out at the opening of the symposium by Laura Tripaldi, the Italian nanotechnologist, who, with her book *Parallel Minds*, shows not only that spiders know how to produce and process an extremely complex material that we humans are incapable of replicating, but also that the molecular composition of this same material has traits of intelligence, since it is capable of reorganising and transforming itself depending on different circumstances, without the technical mediation of the spider that produced it. If we were to seek an equivalence, perhaps we could say that the thread produced by spiders is more like a computer system than a steel cable; although Laura would probably prefer to say that the most advanced technologies we have produced as humans are not computers or interactive systems, but rather fabric.

As Daniel Pitarch, from the artistic group Estampa, later remarked, the metaphors we choose to explain our reality, and our technologies, are key to deciding how we will understand them and how we will use them. That is why the questions that have been hovering over these two days of symposium have focused more on establishing continuities than on seeking ruptures; far from the media spotlight and the explosive or apocalyptic terminology with which big companies tend to advertise their products, the community of artists, researchers, students and teachers that has come together over these days has shown a special sensitivity towards the small shifts that technology imprints on our practices and that, far from being revolutionary or turning everything upside down, reopen questions that seemed closed.

Throughout the symposium, different terms were used to refer to these displacements: translations, shifts, stages of fluidity, frictions... Uncertainty developed as a range of angles from which we can approach technology, moving away from the commonplaces with which it is too often confused. As Ferran Utzet said, in recent years the term “immersive” has become fashionable to describe exhibitions, shows, escape rooms, video games or guided tours; but what exactly does this mean? That it is tactile? That there are large screens? That you can post it on Instagram? That you have to dress up? The same nebula surrounds shows when they announce their use of “new technologies”. What does this mean? That there are video screenings? That robots appear? That illusionistic effects are recreated? That dramaturgy takes a back seat? Víctor Nubla’s radio or Laura Tripaldi’s fabrics tell us a very different story. And that is why we cannot delegate to large companies to fill the concept of technology with content. From live art it is necessary to rethink and test practices and metaphors, and pass them through the places

and laboratories of our practice: through the body, through space, through clothing, through gesture, through voice. And, through them, to give them meaning. As Chris says stage technicians do.

Translations and uncertainties

It was striking that, at a symposium on technologies, there was so much talk about translation. The choice of this term by several speakers already hints at something interesting: unlike the rhetoric of innovation, translation implicitly involves the relationship between two spheres or media; it assumes a humble logic of precession that, in both Romance languages and in the English-speaking or Germanic sphere, also has a strong geographical component. (In German, to translate literally means to cross a river.) However, we should not understand this relationship in a hierarchical way, as if what is translated were a diminished version of an original. The origin is never the thing, but rather the medium, or perhaps, the relationship between two media, neither of which is original. This is what Kris Verdonck, a theatre and visual artist and founder of the Belgian group A Two Dogs Company, was referring to when he described Samuel Beckett as one of the first multimedia stage creators. *All That Fall*, *Radio I*, *Radio II* or *Quad* are examples of the numerous plays that Beckett wrote directly for the radio or television medium, in addition to investigating the dramatic possibilities of technical devices in well-known plays such as *Krapp's Last Tape*. Kris made it clear that Beckett did not limit himself to using the medium, but created from its specificity. The physical and cultural dimensions of one technology (radio, for example) became the framework for another technology (writing).

In her presentation, María García Vera, creator, teacher and member of the artistic group Los Detectives, expanded the meaning of the term “translation” to also include the nuances of shift or transformation. In the case of Los Detectives, this process takes place above all in the shift from cinematographic to theatrical codes; in fact, one of the company’s specificities is the diversity of disciplines from which its members come — cinema, anthropology and visual arts —, and which end up meeting and mutating in the creative process, often on a feedback loop, such as the one that unites an audiovisual piece like *Bellas artrópodos* with a performance like *Concrete Matter*: Both creations explore the relationship of the artists with their mothers, but when moving from one medium to the other, the practices specific to one field are radically transformed to become something else.

Changing the medium helps to highlight critical aspects that may go unnoticed on a first reading. Sometimes these are subtle effects, such as what Daniel Pitarch, artist, teacher and member of the group Estampa, calls “frictions”. During his presentation, a commented screening of a selection of Estampa video works, he showed a series of teasers that they had created in 2022 for the film festival Punto de Vista, based on stereoscopic photographs held at the Fototeca de Navarra. By quickly juxtaposing the two stereoscopic images, what had been thought of as a static image becomes an animated image that recreates a disconcerting sensation of depth, but to achieve this

effect the image must tremble. In Daniel's words, when moving from stereoscopy to the digital medium, the images become nervous. Thus, what had been created to offer a stable image of the past becomes a new, pulsating image, accompanied by an effect of imminence hidden in the stereoscopic format. Similarly, when Estampa uses appropriation and deep fake to put the words of John Berger in *Ways of Seeing* into the mouth of James Stewart, in *Vertigo*, the formulation of the male gaze that prevails in both Hitchcock's film and the famous BBC series is more evident than ever. The result is *The Vertigo of the Ways of Seeing*, a hilarious audiovisual piece, created from a premise as simple as it is effective, and that never fails to reproduce a fundamental exercise in theatre dramaturgy and character construction: putting one body in another body, one voice in another voice.

The change in perspective that translation produces can be painful too, as when María García Vera reproduced in a loop a series of film scenes in which different actresses were slapped. Translating this cinematic material into performance material reminds us that, beyond being a climax in a narrative plot, each slap impacts a body, and there are certainly several takes of that scene before it is considered good, just as there are many moments in the life of a professional actress in which, due to the demands of the script, she must receive a slap. It is also no coincidence that the same scene is repeated over and over again in an endless number of films, where endless actresses have received endless slaps. It is the transfer to the theatrical medium that makes the repetition evident, for the simple reason that theatre is a medium that does not hide its repetitive nature.

Another significant coincidence: in *Concrete Matter*, the historical loop that leads to the repetition of patterns and projections between mothers and daughters results in a theatrical interpretation of a scene from Chekhov's *The Three Sisters*, where the mothers direct their daughters to make the kind of theatre they would like to see. The same Chekhov play gives rise to Susanne Kennedy's mise en scène in 2019 (in Barcelona, in January 2020 at the Teatre Lliure), and about which we had the opportunity to speak with its set designer, Lena Newton, who connected from Düsseldorf to share the key elements in the design of a show that, for many, was a turning point when thinking about how the physical and virtual planes can feed back into each other in a stage production. In Lena's words, the driving concept of *Drei Schwestern* was, specifically, the eternal repetition of situations and archetypes in the innumerable sequence of versions and adaptations that have been made of Chekhov's play. For this very reason, we can no longer look at *The Three Sisters* naively, as if they were staged for the first time, but rather, by repeating themselves, translating themselves and reinterpreting themselves, they have in the end become a pure virtuality, a blind screen on which not only the dreams of Masha, Olga and Irina are projected, but also all our memories, expectations and prejudices, giving rise to an immense imaginary palimpsest that crudely exposes a truth that traditional theatre seeks to hide: that perhaps there is nothing alive or authentic in theatre, beyond the effort to continue endlessly repeating and reiterating the same questions and the same longing for life.

But perhaps life and death are nothing more than other ghosts that underlie the dichotomy that theatre has always experienced between virtuality and presence. Perhaps theatre can also be thought of as a process of constant translation between the dead and the living, or at least as the opening of an intermediate zone between these two states, what Núria Nia, visual artist and teacher, defined as the search for a state of fluidity, the margin of indeterminacy that occurs when something is transferred (or translated) from one world to another. As Nil Martín and Bani Brusadin pointed out, some of the trends that have recently made a fortune on TikTok are a good example of this, such as the adoption of gestures or bodily attitudes strangely reminiscent of the abrupt and artificial movements of virtual avatars or NPCs (non-player characters) in video games. The same strangeness that comes with encountering inhuman movements on a platform like TikTok is reproduced in a show like *Cyberexorcisme*, by Núria Guiu, where the choreographies and actions created by users of the platform become disconcerting when embodied on a stage like the Mercat de les Flors. Núria Nia explained to us that, in every translation between the physical and digital planes, something is lost, but this loss is precisely what opens up a space from which we can become aware of our unconscious conventions, as when she describes the evolution of the photographic rictus in her piece *Estadi de fluïdesa*, manipulating archival portraits from the early 20th century so that they adopt facial expressions characteristic of contemporary self-exposure on social media: as in *Drei Schwestern*, the face ceases to be the mirror of the soul to become a projection surface where the unconscious codes of culture are inscribed.

Body practices

If images and their compulsive repetition replace real experience, what happens to the body? Will it end up being replaced by its simulacrum? Contrary to the fear (so widespread that it ended up infiltrating the image on the poster for the symposium itself) that the logical ambition of digital media is to replace human actors with holograms, video projections or robots, the artists and researchers who spoke at the symposium revealed a very different interest: a genuine and profound fascination with bodily practices and their expressive quality. Citlali Hernández, digital artist and teacher, shared her approach to the body as a product of culture, where techniques, ideologies and discourses converge: through an extensive theoretical framework involving authors such as Marcel Mauss, David Le Breton or Elsa Muñiz, Citlali contributed to undoing the binary opposition that we sometimes set out between body and technology, navigating through multiple artistic examples that deal with the bodily dimension of the internet, from Lucas Condoró to Candela Capitán, through Annie Abrahams and, again, Núria Guiu. If the internet is a territory, many artists are experimenting with ways to occupy, cross over, or embody it, exactly as we have historically done with any new physical space (the Parisian boulevard, the shopping mall, the airport, etc.) or, even, with each reconfiguration of the stage and the stage space. The

internet is a space and it is a stage, where sometimes the body changes register (as in *Cuerpo transceptor*, Citlali's piece in which each part of the body is remotely accessible like the "room" of a videoconference software) and where, at other times, it experiences the discomfort of not fitting in (as in the choreographies of *Solas*, by Candela Capitán, sculpted to screen size, or in the sculptural frame of Lena Newton's scenography for *Drei Schwestern*). In any case, the body never disappears; it continues to constitute the material basis of our thinking and our interactions, inside and outside the internet.

Another piece that exemplifies this interest in the body was described to us by Núria Nia: *Una pell distant*, which Núria herself has recently done with Citlali. In this installation, an artificial intelligence model trained by them is responsible for creating thoughts out loud from a data bank formed by WhatsApp conversations and voice notes that the creators themselves have exchanged during the creation process. What activates the system each time is not a clock or the impulse generated by a computer, but the occasional fall of a drop onto a sensor, from a reservoir of liquid that Citlali and Núria have made from several of their bodily fluids. Núria described the piece as an intermediate state between the cold body of technology and the warm body of skin: a conscious hybridisation of two apparently opposite forms that end up being part of the same sphere.

One of the most surprising contributions on the body was by Jaume Ferrete, who has been investigating the forms and ideologies of the voice through performative research for years, and has recently been delving deeper into the universe of synthetic voices and our way of relating to them. Jaume's presentation was received first with bewilderment and, finally, with laughter; perhaps because no one expected that something so extensively worked on at the Institut del Teatre as the voice could be studied with such passion from such an apparently distant perspective, and at the same time be inspiring and funny. For twenty minutes, Jaume set about undoing prejudices and preconceptions about the voice as a sign of identity, authenticity, presence or depth; even sincerity. What we do when we speak is to make voices, to speak with the voices of others that we have heard before and that have transmitted to us certain signs that, when we speak, we embody. And if voice is not something that comes from within us, but something we do, we are not so different from machines that synthesise voice, such as the famous computer Hal 2000 from *2001: A Space Odyssey*, or Samantha from *Her*, or the virtual assistants Siri or Alexa. This is the starting point of *Laringe, oscil·lador*, a practice-based research project through which Jaume has been trying for years to undo the path followed by most technologies (the path of imitating humans), to concern himself with imitating the functioning and sound of machines. Jaume played us a couple of recordings of vocal exercises in which he and his research collaborators try to approximate the voice to the sonority of an oscillator, or a noise generator. Through these practices, which as Núria said unite a cold and a warm body, not only is the voice transformed to imitate a sound, but the deep mechanisms by which we relate and communicate through the voice are revealed, and the imaginary expectations with which we hope to communicate verbally with machines, or at

least with which we hope that they will communicate with us. “Truth,” said Núria, quoting Ursula K. Le Guin, “is a matter of the imagination.”

Imagining technology is, therefore, totally inseparable from imagining bodies. This was also one of the conclusions that cultural communicator Nil Martín and curator Bani Brusadin seemed to reach, citing a very wide catalogue of performative practices around a series of key concepts for live art, such as space, body or presence. One of the pieces they discussed is *The camera in the mirror*, a collection of involuntary selfies taken by Google robots that accidentally appear in a mirror, compiled by the artist Mario Santamaría: it seems that the problem we face when we want to post a photo of a mirror on Wallapop also affects robots. In all the examples they gave, the digital medium does not become an obstacle, but rather a facilitator for undertaking performative action, which often subverts or desecrates the very device that makes it possible. Although live art has often been defined from the coordinates of shared presence here and now, digital platforms pose new forms of interrelation, which are also ways of dislocating time and space and entering the realm of what Nil and Bani called speculative copresence.

Speculating: reflections and projections

In addition to approaching such central aspects of live art as the body, space, clothing or code changes, another very powerful point of contact between the stage and technology is provided by one of the performing languages with the longest tradition: the theatre of objects and puppets. Heinrich von Kleist’s famous essay *On the Marionette Theatre* shows how the fascination with the articulated body of the puppet has been a source of inspiration for all kinds of technical developments centred on the body, from Craig’s postulates to Meyerhold’s biomechanical principles, from Charles Chaplin’s body and the assembly line to contemporary robotics. Mercè Saumell, researcher and teacher at the Institut del Teatre, reminded us very opportunely that the term “robot” was invented in a play (by the Czech playwright Karel Čapek). The next day, Chris van Goethem explained that one of the first moving heads to be used in a theatre was specially created by Jules — Fisher in 1965 to embody the character of Tinker Bell in a production of *Peter Pan*. Puppets blur the boundaries between technology and character, and in so doing awaken our empathy. This is how Mercè approached the show *School of Moon* by the Shonen company, where the stage is shared by a group of children and robots.

Empathy and fragility are also essential to approach the creative universe of Kris Verdonck, who revealed to us that he had Von Kleist’s essay as his text of reference. Kris was categorical: theatre is a completely artificial machine, where we want to create the illusion of authenticity. The spontaneity that the actors try to evoke every evening is pure artifice, much closer to a puppet than to a living being. While the performative tradition of the sixties relied on pain or physical exhaustion to bring a visceral presence to the stage, which was not the mere repetition of a form, Kris’s artistic practice distances itself from physical suffering to transfer it to machines: This

is the starting point of his *DANCER* (or, more recently, *EXHAUST*) series, where different engines are subjected to overexertion until they burn out and symbolically die. Technological sadism? Perhaps so, but what was most apparent from his talk was that the core of the issue is the empathy that the “death” of objects provokes in us. “Like when C3PO dies and we cry.” If we want to understand technology, we cannot think of it as a pure instrument of our will, but must assume that we maintain a complex and paradoxical relationship with it, at least as much as the paradox between the living and the dead that we find in the theatre. Objects manipulate us as much as we manipulate them; they make us act in certain ways. That is why we say that “weapons kill” or that electric scooters are dangerous. This reciprocal manipulation has a much more affective component than we usually admit: just twenty years ago, it would have been unthinkable for us to take our computer to bed. Digital technologies have accentuated the dissolution of the boundaries between subject and object, precisely through the production of empathy and the achievement of a new intimacy. That is why, Kris added ironically, the teddy bear is the most interactive device ever invented, the perfect object to receive any emotional projection.

Projecting means imbuing the gaze with fiction. We do so constantly, almost always without realising. In the theatre, projection becomes both conscious and shared, and often also paradoxical, as in the piece *I/II/III/IV*, where Kris suspends four ballet dancers from a machine that allows them to fly, while at the same time taking over some of the control over their movements. The machine causes dancers to spin on their own axis in an unpredictable manner, so that the unison they try to maintain becomes practically impossible. Kris emphasised how, for him, the most fun was to see how what the audience most yearned for were the moments of perfection, when the dancers managed to behave like a machine, when in reality the machine on stage acted as a pure generator of errors. Why do we project the (supposed) perfection of a machine onto a human body?

The question about the projection was also at the basis of *Louqsor/Andromède*, the audiovisual installation by the studio FRAU recerques visuals (formed by Helena Pielias and Vicenç Viaplana) that could be visited on the first day of the symposium in the Scanner space. Helena explained that, to make this installation, they had started with the diaries and memoirs of Aurora Bertrana, where the writer narrates her almost three-year journey through French Polynesia, aboard the ships *Louqsor* and *Andromède*. Before the internet existed, Helena pointed out, the literary description of these journeys was the only way to imagine a world that most people would never see. As visual artists, the challenge of putting pictures to Bertrana’s words was immense, because the writing already contained a described visual universe, and was aimed at the projection of mental images. Therefore, instead of illustrating or commenting on the meaning of the writer’s words, Helena and Vicenç decided to drastically reduce the resolution of the images, limiting them to just over a hundred pixels that accompany the author’s read words, giving rise to a series of abstract compositions that place us in an atmosphere and in a certain state of dizziness, fogginess, or hallucination. This

vagueness of the images, combined with the precision of the text, ultimately creates a new experience that no longer has anything to do with the direct reading of Aurora Bertrana. And what the symposium also helped us to see is that, regardless of the use that we, as individuals, make of contemporary digital technologies, any cultural experience is always mediated by the filter of the technologies that, at each historical moment, shape our perception. The mental images we form today when reading Aurora Bertrana probably have nothing to do with those that the same text evoked just a century ago. The imagery of social media, cinema, documentaries, or high-resolution videos shape the kind of imagery we form when reading the description of a boat trip to Polynesia. *Louqsor/Andromède* swims against the current, and in so doing reveals the unconscious filter through which we view reality and project the structure of fiction onto it.

Ghosts and elephants

How does technology change us? Apolinário Passos, a researcher in generative artificial intelligence and an active member of the Hugging Face community, made it clear that what interested him least about technological development was being able to do the same processes faster. Instead, he was fascinated by the new possibilities offered by technology: what had not been possible until then. Anna Giralt and Jorge Caballero, who have also been researching the applications of artificial intelligence to audiovisual production for years, went back to the historical evolution of paint tubes to explain how the emergence of Impressionism was inseparable from the technical innovation that allowed mixing and preserving of colours in the open air. For Kris Verdonck, the invention of dance carpet is the most important technological innovation for 20th-century dance, as it made possible both the exploration of the floor and the discovery of a whole range of new grammars and ways of moving that were not only unthinkable for classical dance, but also impractical due to the hardness of its floors.

But the person who referred most fully to the impact that technical inventions have on artistic creation was Chris van Goethem. Contrary to the commercial and media discourse that tends to equate invention and creation, Chris made it very clear that the fact that a technology exists does not mean that it can be readily used in a theatre. To demonstrate this, he used a set of examples that showed that the evolution of art and technology is a story made up of both parallelisms and discontinuities. The first remote control lighting device that Jules Fisher used in 1965, operated with ropes, had been patented more than half a century earlier. The company that invented the telephone broadcast of opera performances (the *Théâtrophone*) also invented stereo sound, but was never aware of it. The observation of these parallels and discontinuities is at the heart of the research carried out by the European project Canon of Technical History, based on the idea that there is no single history, and that archival research can be a fundamental pillar for the production of counter-narratives. In fact, both live art and technologies share an ephemeral and forgettable nature, as demonstrated by the fact that

Chris's younger students, upon seeing the image of a Revox tape recorder, thought it was upside down. And the idea that what is on the internet lasts forever, Chris added, only applies to what we do not want to be there. Just as Anna and Jorge did when relating the technical characteristics of paint tubes to Impressionism, one of the digital tools that the Canon project is developing is a chronology that makes visible the interrelationships between theatre technical development and art history.

An important lesson from this project is that many of the technologies that, when applied to theatre, seem more recent, such as video mapping, three-dimensional projections or live streaming, have actually been used for centuries. The optical trick known as Pepper's ghost, which combines the three-dimensionality of projection with the spectrality of a hologram, was repeatedly mentioned during the symposium. It is no coincidence that Pepper's ghost was thought of precisely as such, as a ghost, just as it is not coincidental that the multiple connections with the supernatural world have meant that, for centuries, what we now call technology has been known as magic. "Any sufficiently advanced technology is indistinguishable from magic," wrote Arthur C. Clarke, and this can also make us think about the influence that technology has on our imagination and the way we perceive and order the world. Just the speed with which a platform like TikTok constantly renews its content already distances us from the idea of memory and archiving that is so important to Chris. As Nil and Bani said, TikTok is not designed to archive, and this increasingly accustoms us to the idea that what we produce, deep down, is noise, and we are grateful to the amnesiac algorithm that does not burden us with the task of preserving (or even looking after) the thousands of pieces of content that pass before our eyes every day. However, if today there is a technology capable of playing the role of ghost, and at the same time hovering like the elephant in the room, it is undoubtedly artificial intelligence. Daniel Pitarch, in a presentation as demystifying as it was playful, sought to emphasise that artificial intelligence is nothing more than an archive taken to the extreme. In the case of Estampa, the group did not decide to start working with artificial intelligence because of its supposed newness, but because of the deep relationships that this technology established with two of the fields in which the different members of Estampa had been working for years: archive and experimental animation. It is from this heterodox position that Estampa's critical and artistic gaze is expressed, which often uses artificial intelligence tools to question artificial intelligence itself, playing with finding its limits and often taking it to the absurd. In the video essay *¿Qué es lo que ves, YOLO9000?*, the artists use a computer vision tool, trained with millions of images tagged with different words, to look for the frictions or strangeness that the machine leads us to when, for example, it identifies a man as a "worker" and another as a "lover", or when it interprets the close-up of an eye as a "lunar crater". We could paraphrase Clarke and say that any sufficiently involuntary error is indistinguishable from poetry. It turns out that YOLO9000, programmed to see only what can be monetised, is not only capable of reducing the world to discrete and linguistically defined units, but also of expanding it with its limited and biased vision of

reality. This is the magic that the members of the Estampa group are able to work with their pieces, and in fact they often do so through such a theatrical resource as the creation of a character (almost always comic). And the fact is, in the hands of the members of Estampa, what is YOLO9000 but a character so convinced of its own truth that it is hilarious? The most famous comedies have been written with identical characters.

The counterpoint was provided by Anna Giralt and Jorge Caballero, who were perhaps not so interested in thinking about artificial intelligence as in using it as a creative tool, or, in their words, as a complexoscope: a tool for navigating complexity. It is thanks to the possibilities offered by artificial intelligence that Anna came to consider making a visual classification of the six thousand images on Santiago Abascal's Instagram profile, or that Jorge thought of directing a documentary on the use of non-lethal weapons, in which artificial intelligence helped him identify and document unjustified uses of these weapons in thousands of video recordings. But despite the capacity of artificial intelligence to interpret large volumes of information, one of the main problems that it poses, according to these researchers, is that it ends up reducing everything to language. In a similar way to how Ferran Utzet proposed that we return to Aristotle, Brecht and Boal to reflect on the concept of immersion, Anna and Jorge relocated artificial intelligence in the tradition of combining text and image that goes from classical ekphrasis to the audio description of works of art or photo captions, as well as baroque emblems. Artificial intelligence is another step in the long history that has set the semantic ambiguity of the image against the overdetermination of the word, and that today becomes even more palpable with the production of stereotypes, assimilation to a single language (English), decontextualisation or the loss of body experience. For Jorge, as a good filmmaker, it was particularly worrying that artificial intelligence would reduce any idea to the diegetic space, leaving no room for interpretation for the spectator of what might be located off-screen, or on a more metaphorical or symbolic plane. This set of limitations also seems very pertinent if we think about it from the perspective of live art, and, in a way, they suggest what artificial intelligence is less capable of doing: assuming that it is a ghost and that, like any good elephant in the room, it only works if it does not appear, literally, within the room.

To escape from language, Anna and Jorge, together with Apolinário Passos, ended up proposing a series of tools designed to edit cinema with the body: from a software that synchronises the editing speed with our heart rate to a live image generating system, including a motion capture application that recognises our gestures and interprets them as editing commands. Again, we return to the body, and to rediscovering the fact of playing, which minimises the importance of technology and reminds us that, after all, we are imperfect.

The black box as interference

The metaphor of the black box is one of the most used to refer to technological systems. We know that we activate something (an input), and that

this action translates into a response (an output), despite not knowing, nor having any reason to know, what transformation process has taken place to move from one state to another. This allows us to understand and use a large number of technological devices without really knowing how they work, or to feel original and creative while working with computers that may not even be designed to be opened. In the symposium closing activity, Clara Laguillo, philosopher and teacher at ESDi and CITM, proposed a very different paradigm for thinking about technology: waiting. Contrary to the immediacy and transparency that we often associate with the black box, the artistic (and vital) genealogy that Clara proposed to us reminded us of all the times we have been waiting in front of a machine, whether because the computer takes a long time to turn on, because the lift does not work, or because the message we expect to receive never arrives. The automation in the workplace that began to be imposed during the industrial revolution extended to the beginnings of computing its promise of freeing us from useless work time; a siren song that we have heard again during the latest media campaigns about artificial intelligence. With the perspective that this first quarter of a century gives us, we can already discuss the state of these promises.

As I pointed out at the start, the debates and contributions that ran through the symposium expressed this critical and retrospective gaze, rather than a blind faith in the promises of progress and innovation. Far from presenting themselves as a world apart that rejects materiality, contact and direct experience, technologies were repeatedly observed as vehicles of uncertainty; the uncertainty characteristic of the time that is not yet, and of what has not yet ceased to be. In other words, the uncertainty that makes creation possible.

Technical problems and error also accompanied the entire symposium. During Lena Newton's telematic presentation, the sound of her videos would not come out of the speakers and found the (less conventional) path of the video projector. It was a shrill and frightening sound, but we all pretended not to notice. During the projection of Estampa videos, the image shook insistently, and Daniel had to go up to the booth twice to warn that only the music of the videos could be heard, but not the words. When Helena and Vicent arrived to set up their installation, we discovered that there was no screen. This led us to project directly onto the black wall of the Scanner, and the smoothed pixels of *Louqsor/Andromède* blended with the texture and cracks of the wall. Surprisingly, in this unexpected friction the black box of the theatre suddenly became visible, another black box designed to be invisible, and to enable the emergence of stage magic. The next day, Kris Verdonck would point to it again, and repeat that in such an artificial space, nothing spontaneous could ever happen. During the screening of *Louqsor/Andromède*, the marks and cracks on the wall unexpectedly transformed into part of Aurora Bertrana's poetic landscape.

At the exit of the Scanner, we were greeted, or bid farewell, by *FLUX*, a light installation designed by Júlia Rossinyol and Mercè Lledós as the final project of the Postgraduate Degree in Performance and Digital Technology, and inspired by the communication of trees. Originally designed to be

activated in a forest, the installation took on a new meaning in contact with Josep Mallofré's anamorphism of the corridor on level -2. We leave behind two days full of stimulation and exchanges, with twenty-four metres of programmed LEDs and an exotic garden painted and deformed to deceive the eye. We still do not know what the trees think about it.

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