ALTERITY



IMAGE FROM THE PREMIERE POSTER. DESIGN: ALBERT S. RIVERA

A performance installation for one human voice, legacy intelligent instruments and contemporary AI

JACCO GARDNER

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ARCHIVAL FOOTAGE SHOWING JEFF MINTER, THE CREATOR OF TRIP-A-TRON, MANIPULATED BY LUCAS LAUJEDO FOR CONDUCTOR'S "DREAM SEQUENCES" WHERE THE INSTALLATION DREAMS ABOUT ITS CREATORS

In the early years of the digital revolution, a small group of composers and programmers imagined instruments capable of creative dialogue with artists: composing in real time, turning a gesture into an image, translating sound into light. That vision of symbiosis is largely absent from today's conversation about AI-generated music and video, which favours automation over collaboration.

AT STORYSPACE

[How ALTERITY is presented at NFF 2026: installation state, performance dates and times]

ALTERITY

Alterity reflects on machine creativity and the distance between two eras of artificial intelligence. What happens when a contemporary AI learns the language of instruments built before it was conceivable?

These machines once embodied a particular dream of what thinking machines could become in collaborative human-machine creative contexts, a dream in which the computer was a collaborator rather than an executor. Set aside for decades, they find a second life through contemporary language models, which take up that dream by working within the very constraints their designers wrote.

Neither the human or machine is fully in control, and both are shaped by the logic of creative systems that came before either of them. Creative agency is redistributed through historic instruments rather than concentrated in one place.

An essay on humanity's fears and desires around creating artificial life, written and researched by María Pandiello, is narrated from a tape machine. The agents read this text daily and translate it into the instruments' own protocols, so the narration is expressed in languages that belong to the obsolete machines featured in the narrative.

At other moments the system can be seen dreaming about its creators, showing footage of the inventors who pioneered these technologies during the digital revolution, manipulated by Lucas Laujedo, and during these dreams the agents process the text and generate new ideas.

What we encounter is an otherness that is also familiar. An intelligence that reveals itself through the instruments and ideas we abandoned, speaking to us through our own digital heritage.

This tape machine holds my voice.

A 200 metre long polyester ribbon slides past a tiny electromagnet, where varying patterns of magnetic particles become an electrical current, which becomes the sound of my voice.

While it sounds like I'm speaking to you, you're not listening to me at all.

By recording my voice onto this device, you could say that it now encapsulates the illusion of my presence. A presence that once existed, but that is no longer here.

What you're hearing is a temporal ruin, a reminiscence of something that happened in the past. An unusually warm night in Antwerp in late June, when I was recording these words.

I imagined what it would feel like to speak to you, and I tried to speak as if I was already here, but in the end, in that moment, I wasn't here.

And though that moment has passed, and I'm no longer there, somehow my presence remains.

What you're experiencing right now is a paradox, because this machine brings both my presence and my absence at the same time.

Now, I have become a ghost into this machine.



THE TAPE MACHINE IN CONDUCTOR. PHOTO: [PHOTOGRAPHER]

FROM THE NARRATION. TEXT: MARÍA PANDIELLO. VOICE: JACCO GARDNER.



ALTERITY AT MU HYBRID ART HOUSE, EINDHOVEN, 2026

CONDUCTOR



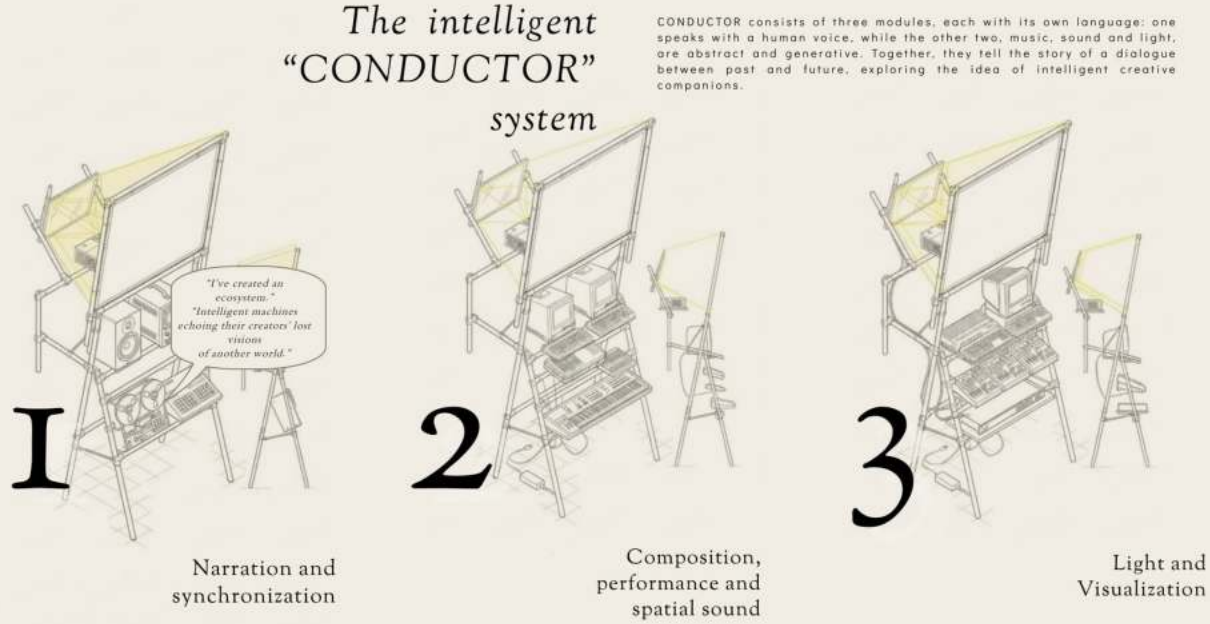
THE CONDUCTOR TIMELINE, VIEWED ON THE RASPBERRY PI 4 TERMINAL RUNNING CONDUCTOR UNIFIED EXECUTION, THE PROTOCOL AGENTS USE TO REACH THE HARDWARE.

CONDUCTOR is a system through which contemporary AI agents operate creative machines from the late 1980s and early 1990s: a synthesiser, a music computer, and a visual system, all long considered obsolete. The agents have absorbed their vocabulary, and now speak through them in real time, directing sound and image while a human performer navigates the same space alongside them.

Nothing here is generated by a model trained on finished music. Sound and image are constructed inside the machines themselves, one parameter at a time, and because both parties work through the same vocabulary, each can see what the other is doing.

The system accumulates rather than repeats. Every session leaves states in a shared memory that later sessions take up, break apart and return altered.

The lightweight protocols through which these instruments communicate allow creative intelligence to operate locally, on consumer hardware, at a fraction of the expense of generative sound or video models.



THE THREE TOWERS, AS FIRST CONCEIVED FOR THE PIECE

The tape machine

Holds the narrator's voice on one track and timecode on the other, keeping every machine in the room synchronized.

MAX

Connects sound, image and light on the second Macintosh and holds the performance in memory. Created by Miller Puckette in the mid-1980s.

Trip-A-Tron

Jeff Minter's light synthesiser from 1988, a form of visual music. Its obscure scripting language is now written fluently by the agents.

M

Composes autonomously and interactively on the first Macintosh in four voices. It blurred the line between composition and improvisation. Developed by Joel Chadabe and David Zicarelli, 1987.

Kurzweil K2000

The only sound source, released in 1991, a year after Ray Kurzweil's *The Age of Intelligent Machines*. With it, an orchestra came within reach of a single composer.

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Embodied Narration

The first of the three tower's main function is voice narration and synchronization to this narrative for all the other machines in the system. It represent the human voice through machine hardware through several objects: a tape machine that stores the voice, an oscilloscope that renders it as waveform, and a speaker that emits it into the room from one fixed point. Together they embody the voice which allow it to adress the audience with physical prescence. Though music surrounds the observer from all four corners, the voice comes from this one specific place. The separation between them gives the voice, a remnent of Gardner's actual prescence, its own physical container in which it exists.



Akai X201D (1978)

The Akai X201-D is a stereo reel-to-reel tape machine. It's used for narration and timecode. It was part of a wave of consumer and semi-professional equipment that brought studio-grade technology within reach of individual enthusiasts for the first time. Tools that had previously required institutional budgets could now be used at home, opening serious experimentation to a much wider circle. Its two tracks carry something quietly remarkable: one holds the narrator's voice, a human memory pressed into magnetic oxide, while the other carries SMPTE timecode, the machine's own memory synchronizing every system in CONDUCTOR. Both coexist on the same strip of tape. The organic and the computational, moving together at 7.5 inches per second. It's most unique feature as an auto--reverse system. The machine itself detects a signal change at the end and beginning, and reverses its direction continuously, which is ideal for installation use.





"This tapemachine holds my voice..."

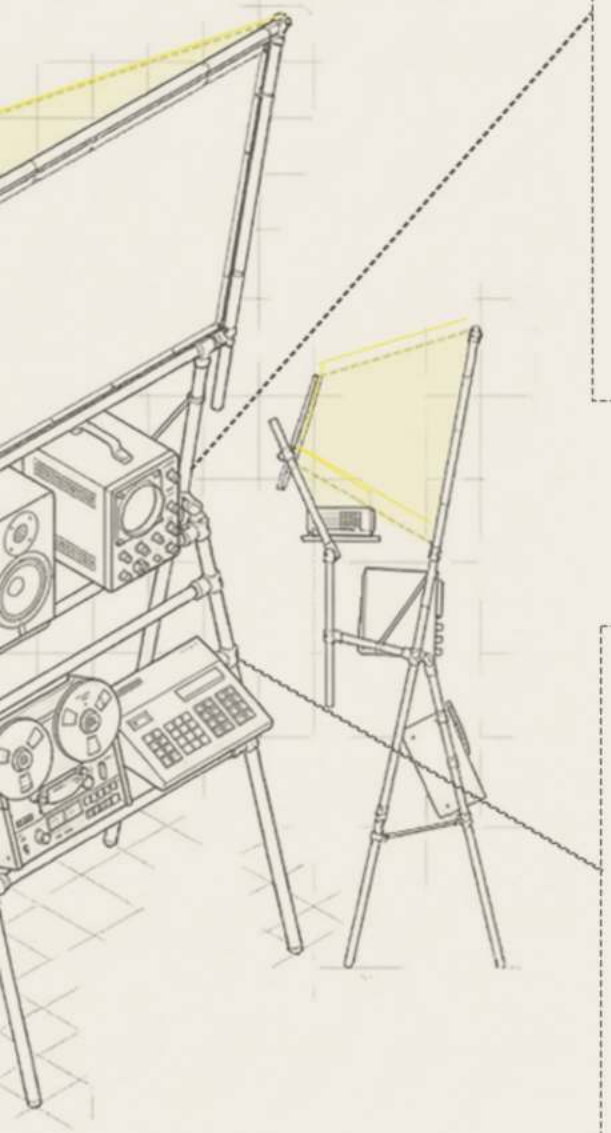
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Heathkit OP-12 Laboratory Oscilloscope (1958)

The Heathkit OP-12 was sold as a kit with detailed assembly manuals that included a full theory of operation, built on the assumption that the person using a device should also understand how it works. Making the logic of a machine legible to its user was embedded in the product itself. This is the philosophy of transparency made physical, a core concept explored in this work. In ALTERITY the oscilloscope renders the narrator's voice as waveform, translating speech into light and making the contours of a human voice visible. The live camera captures these traces and projects them across the screens at carefully chosen moments, so what begins as an intimate signal within a single machine becomes visible to the entire room. It also serves a practical role, used to maintain and diagnose the historic equipment throughout the installation, and traditionally an essential instrument for inventors. It's part of this installation's laboratory-like prescence.



Yamaha MSS-1 (1988)

SMPTE timecode was developed in the 1960s to synchronize film and video equipment. MIDI arrived two decades later as a universal language for digital musical instruments. The Yamaha MSS-1 was designed in the late 1980s to bridge these two worlds, reading the timecode from the tape machine and converting it into MIDI signals that every device in the system understands. Beyond conversion, it carries its own programmable internal timeline, firing automation events at precise moments throughout the performance to the intended machines. In CONDUCTOR it triggers scene changes and system states across all three modules in unison. It sits at the intersection of two distinct technological histories and in doing so holds the entire performance together.

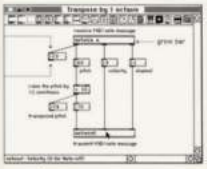


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Apple Macintosh SE/30 (1989)
Opcode "MAX"







Created by Miller Puckette at IRCAM in the mid-1980s and named after computer music pioneer Max Mathews, MAX began as a visual programming environment for interactive composition. Its earliest use was Philippe Manoury's Jupiter (1987), synchronizing a computer to live instruments in real time. David Zicarelli, who also developed M, brought MAX to commercial release through Opcode, and it remains the standard tool for media art today. This earlier version could only send and receive MIDI. In CONDUCTOR that is enough: it connects composition, sound, visuals and lighting, routes signals between every component, generates life-like unpredictability and stores the complete state of the performance as memory.



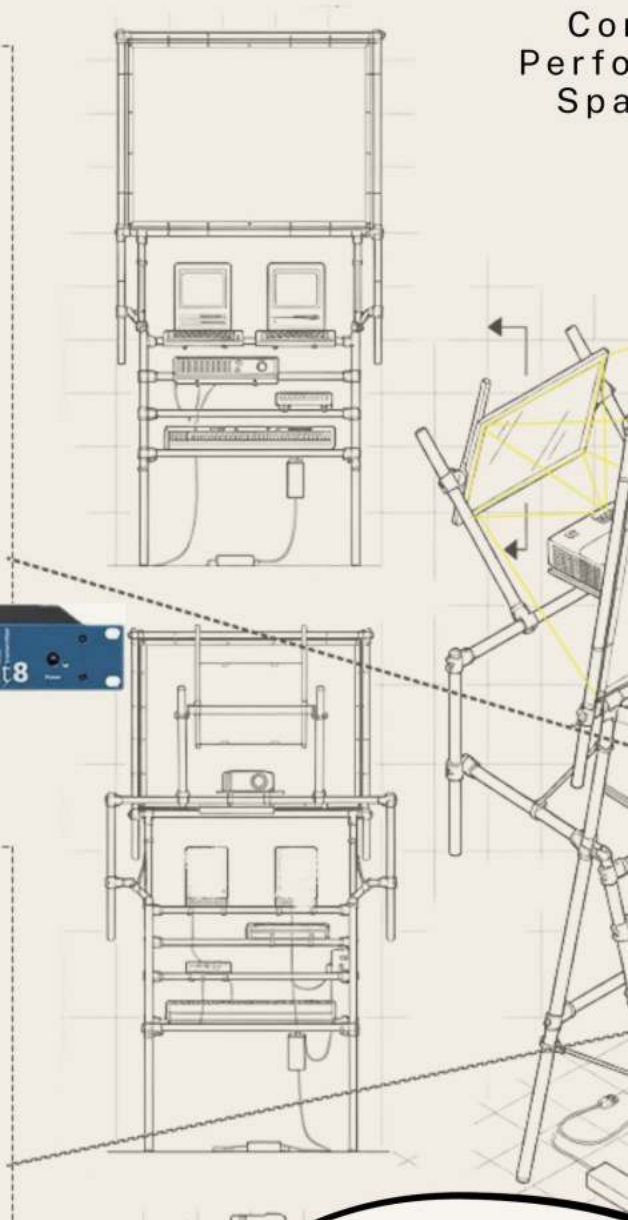
Kurzweil K2000 (1991)



Released in 1991, the Kurzweil K2000 arrived a year after its founder Ray Kurzweil published The Age of Intelligent Machines, predicting the eventual blurring of the boundary between human and machine intelligence. The model number pointed toward the millennium as a horizon of transformation.

The cultural friction that followed as musicians questioned what this meant for their craft mirrors the tension surrounding AI today. In CONDUCTOR it is the sole sound source, its four outputs feeding the four corner speakers quadraphonically. We now live inside the future Kurzweil described. That gives the instrument a particular weight here.





"The two Macinto computers you ca see in the center CONDUCTOR, form something similar to a brain..."

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Macintosh SE (1987) Intelligent Music "M")

Developed by Joel Chadabe and David Zicarelli at Intelligent Music in 1987, M was built around the belief that computers should function as creative collaborators, allowing a performer to shape an ongoing algorithmic process rather than execute a fixed score. Every parameter can be controlled externally via MIDI, making the entire program operable through voice, keyboard and timeline automation simultaneously. M was asking what a genuine human-machine creative relationship might look like decades before that question became urgent.

Fostex DCM100 (1991) Lexicon LXP-5 (1990)



The Fostex DCM is a rare example of an analogue mixer with full MIDI control, its faders and routing automatable in real time from MAX. The two Lexicon LXP-5 units handle the spatial dimension of the sound. Among the first fully programmable multi-effects processors, the LXP-5 was designed to be operated via personal computer to access deep control capabilities. In CONDUCTOR the two units work in tandem across the four quadraphonic channels, constructing a manufactured sense of space shaped by the same MIDI automation that controls everything else in the room.



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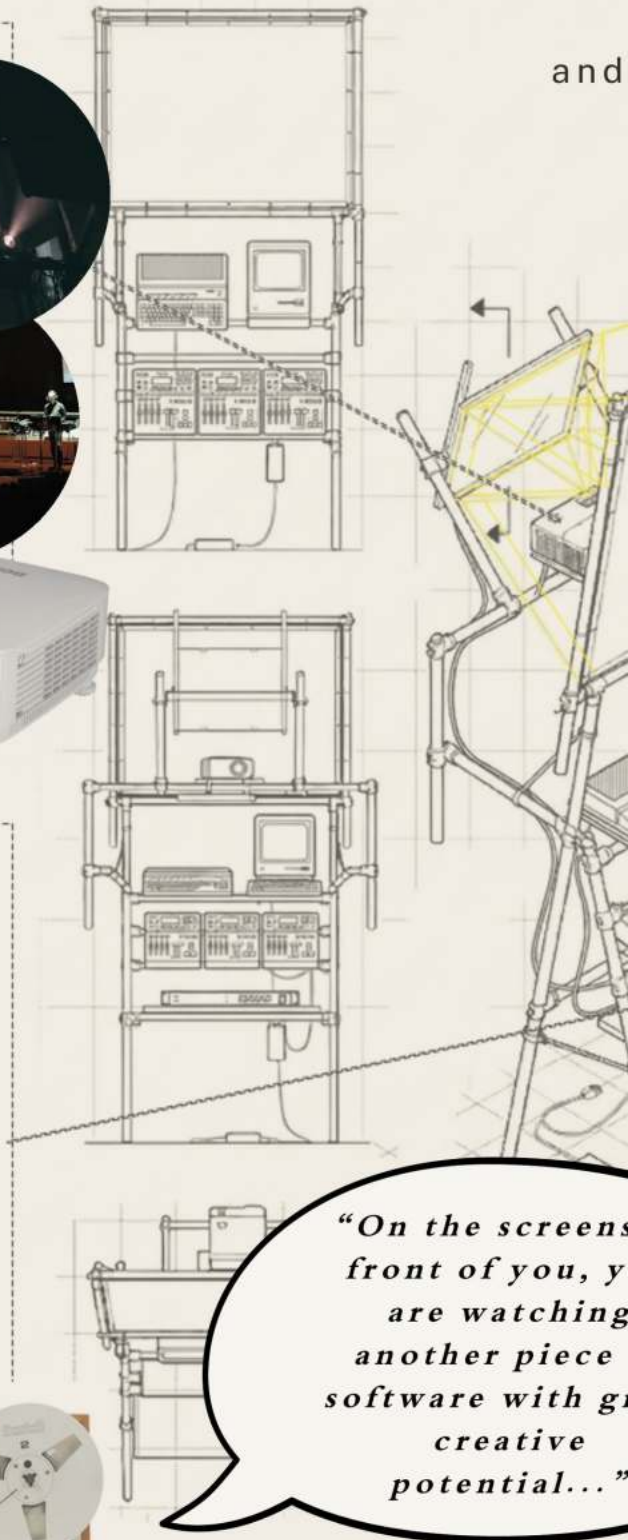
and

Rear-projection

Each installation module houses its own rear projection system: a projector throws its image onto a mirror, which redirects it back through the screen, keeping the projection self-contained within the structure.

Kraftwerk's Computerworld tours were among the first to integrate rear projection this way, presenting equipment and image as a single unified presence. CONDUCTOR continues in that lineage. Every medium in the system is synchronized in real time, and latency in any one disrupts the coherence of the whole. The projectors run in game mode, reducing display lag to 16 milliseconds. Precision here is the condition that makes the system readable as one thing.





FPGA's

FPGAs are chips that can be reconfigured to replicate the behaviour of other hardware at a fundamental level, reproducing original timing and signal characteristics with an accuracy software emulation cannot match. The MiSTer FPGA project, an entirely open-source community initiative, has developed cores for dozens of legacy systems including the Atari ST. For media archaeology this is transformative: rather than acquiring and maintaining separate physical machines, a researcher can move fluidly across hardware generations within a single platform. The Atari ST running Trip-a-tron in CONDUCTOR is a hardware reconstruction: analog video, MIDI I/O, and all signal characteristics are identical to the original, on current production hardware free from the degradation risks of aging components while much more energy efficient than original hardware.



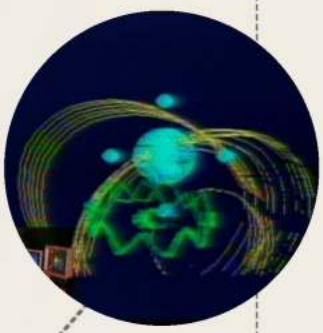


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Llamasoft "Trip-A-Tron" (1988)



Trip-A-Tron, possibly the most unique and forgotten curiosity in this ecosystem, was created by game developer Jeff Minter for the Atari ST in the late 1980s as a light synthesizer, conceived as a form of visual music where imagery could be composed and performed like sound. It remains the only program ever designed to translate MIDI directly into analog video output.

The Atari ST shipped with MIDI ports as standard hardware, making it the instrument of choice for a generation of composers and producers. Minter used Trip-A-Tron to produce Merak in 1988, one of the earliest examples of solo CGI filmmaking on a personal computer. In CONDUCTOR it generates imagery in real time from the same MIDI data that drives the music. The audience experiences a kind of "visual music" with generative visuals emerging directly from the compositional process.



Roland Edirol V4 Videomixer

VJ culture emerged from the club and rave scenes of the late 1980s and 1990s, where visual jockeys mixed live video alongside DJs, treating image with the same spontaneity as sound. The Edirol V4 became a standard tool in that world, its comprehensive MIDI implementation making it as much an instrument as a mixer. In CONDUCTOR three V4 units receive MIDI from MAX and the MIDI timeline, transitioning between Trip-a-tron visuals and live camera at precisely programmed moments but also functioning in unpredictable generative ways. A device built for human spontaneity operating inside a fully automated system, its origins in improvisation now part of a shared machine choreography.



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Legible machines

Public discussion of AI in the arts tends to ask whether a machine can be creative, or whether it will replace the artist. Both questions measure the machine against a human standard. ALTERITY starts elsewhere. It treats the machines as others, each with its own history, its own language and its own limits.

The instruments in CONDUCTOR are small enough to be understood completely. Their entire control surface can be read, by a human operator and by a language model alike. Because every function is exposed, the same instrument can be played by a person, by an agent, or by both together, without adaptation.

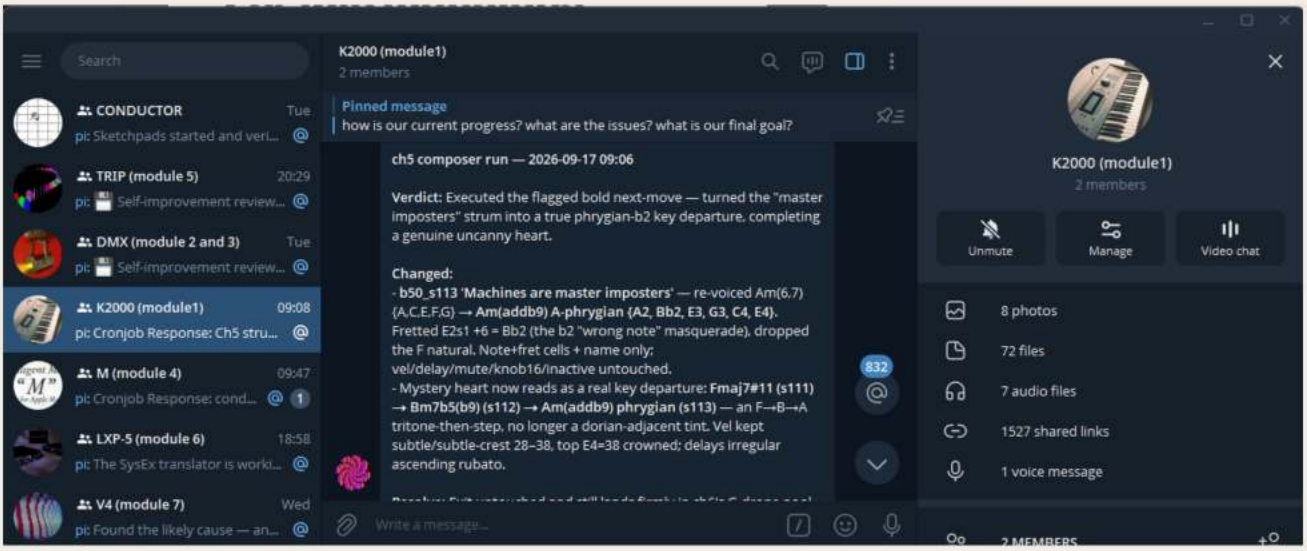
Shared competence

In most accounts of collaboration between people and computers, the work is divided. The human sets goals and the machine carries them out. This model has shaped computing since J.C.R. Licklider described man-computer symbiosis in 1960.

ALTERITY explores another arrangement, in which human and machine work in the same notation and need overlapping competence in it. What overloads a human operator also overloads an agent, so the system is designed around one mental model that both can hold.

The arrangement has precedents. David Behrman's *On the Other Ocean* (1977) followed two musicians and changed its harmonies in response, and George Lewis's *Voyager*, developed from the 1980s, improvises alongside human musicians while pursuing a behaviour of its own.

The instrument keeps its character as an instrument while it gains a new kind of player.



THE AGENTS AT WORK, ONE TELEGRAM GROUP PER INSTRUMENT

Transparency

In the first tower of CONDUCTOR stands a laboratory oscilloscope from 1958. It was sold as a kit, with assembly manuals that included a full theory of operation. Its design assumed that the person using a device should also understand how it works.

That assumption runs through the whole installation. Here the oscilloscope renders the narrator's voice as a waveform, turning speech into light, and a live camera carries these traces onto the screens.

"If instead of composing individual finite length works, a composer could encode in computer software their personal compositional methods, preferences, processes and ways of making musical decisions, and somehow their aesthetic sensibility too, then they could go on composing and generating new music long after the biological human had ceased to exist."

Laurie Spiegel

Composer and computer music pioneer, recalling her time at Bell Labs in the 1970s. She coined the term "Intelligent Instrument". Her work was the first inspiration for ALTERITY.

“I do not compose pieces, I compose activities. A ‘piece’, whatever its content, is a construction with a beginning and end that exists independent of its listeners and within its own boundaries of time. An ‘activity’ unfolds because of the way people perform.”

Joel Chadabe, composer and co-founder of Intelligent Music, where M was developed.

> *“I was interested in a certain kind of sound in which if you zoom out the music would sound vaguely the same but if you focused on the specific notes it wouldn't really be repeating. I haven't really ever gotten past that idea and it's still what I try to do all the time.”*
>
> **David Zicarelli**, developer of M and MAX, on his earlier program Jam Factory.

“No matter how complex the hardware, no matter how clever the software, no automatic device will ever be able to visually interpret music in the same way as a human being.”

Jeff Minter, creator of Trip-A-Tron, writing in 1987.

> *“The role of the computer is not to displace human creativity but rather to amplify it.”*
>
> **Ray Kurzweil**, inventor and founder of Kurzweil Music Systems and author of "The Singularity is Near".

Many others explored intelligent systems in creative practice, among them Wendy Carlos, Vera Molnár, Pauline Oliveros, Miller Puckette, John Offenhartz and Antony Widoff.

The narration

The narration heard in ALTERITY was researched and written by María Pandiello. She holds a doctorate in art history and has worked for close to twenty years on late medieval manuscripts and early printed books. Her research concerns the visual means by which cultures reason about what exceeds them.



A medieval depiction of a homunculus, from *The Pretiosissimum Donum Dei*, Georgius Aurach de Argentina, 15th century.

Visiones de fuego (2022) traces the pictorial language of alchemy. *Apocalipsis. Revelaciones, miedos y futuros posibles* (2025) follows the iconography of the end of the world, and the beginning of a new one, across fifteen centuries. She is also collaborating curator of *Hou vast* at Rijksmuseum Meermanno, an exhibition of late medieval books of hours, whose prayers were read at fixed hours of each day.

The narration descends from the same enquiry. It begins with the recorded voice as a form of self-replication, and follows the desire to exceed the body from the alchemical homunculus to the computing laboratories that inherited the ambition, and to the personal machines of the 1980s that carried it into domestic space. It arrives at a present in which utopian and dystopian accounts of artificial intelligence share one structure.

THE FULL NARRATION BEGINS ON PAGE 22

We live between the Frankenstein complex, Frankenstein's fear of his own creation, and that of Pygmalion, who fell madly in love with his own sculpture, Galatea. Yet, between fear and attraction, what we find in technology is our own reflection. Like Narcissus, we fall in love and fear an illusion of others, of otherness.

FROM THE NARRATION, TEXT BY MARÍA PANDIELLO

Jacco Gardner

"Throughout my career I have found that technological progress, especially when driven by commercial demands, tends to set promising ideas aside. For this reason I have long been interested in the history of technology within the creative field. Many of the abandoned paths might have changed the world significantly had they been followed."

Gardner's music has evolved alongside this research, from the studio experimentation of the 1960s to the ideas that came with the personal computer. *Somnium* (2018), his third and fully instrumental album, was performed in quadraphonic sound, a spatial format that arrived too early and disappeared too quickly.

Working and performing with these technologies helps Gardner understand the visions embedded in them. "I have often felt the resulting work to be collaborative, especially with interactive instruments designed to make decisions of their own."

When generative AI became the dominant conversation around creativity and technology, Gardner felt a strong resonance with the intelligent instruments of the past. They held a different vision of the relationship between humans and machines: more transparent, more collaborative, more present. He wants to understand this from the inside.



GARDNER IN HIS STUDIO AND RESEARCH PRACTICE.

María Pandiello

Art historian specialising in manuscripts and printed books of the fifteenth and sixteenth centuries. Author of the narration.

Edwin Gardner

Futurologist, architect and writer, co-founder of Studio Monnik and De Chrononauten. He reviewed the narrative text, provided a bibliography and broadened the conceptual scope of the work.

David Zicarelli

Developer of M and MAX and founder of Cycling '74. Professional supervisor for Gardner's doctoral research.

Drew Schlesinger

Sound developer and preset designer for Kurzweil and many other manufacturers. Professional supervisor for Gardner's doctoral research.

Jeff Minter

Creator of Trip-A-Tron. He attended the premiere of ALTERITY, and considers the light synthesiser an instrument of the future.

Lucas Laujedo

Manipulated the archival footage for the sequences in which the system dreams about its creators.

Temporal Constructs

CONDUCTOR and ALTERITY form part of *Temporal Constructs: Reclaiming Creative Agency in the Age of Artificial Intelligence*, Jacco Gardner's Professional Doctorate at Inholland University of Applied Sciences. The research examines how creative agency is shared between artists and machine intelligence, using instruments small enough to be understood completely by a human and a language model alike. Alongside the artistic work, Gardner is recording the accounts of the designers who built these systems, whose reasoning was largely never written down.

The narration

An essay in seven parts on humanity's fears and desires around creating artificial life. Written and researched by María Pandiello, narrated by Jacco Gardner.

In ALTERITY the text is heard from a tape machine that also carries the timecode guiding every other machine in the room. It is reproduced here in full, set in paragraphs for reading.

I

This tape machine holds my voice. A 200 metre long polyester ribbon slides past a tiny electromagnet, where varying patterns of magnetic particles become an electrical current, which becomes the sound of my voice. While it sounds like I'm speaking to you, you're not listening to me at all.

By recording my voice onto this device, you could say that it now encapsulates the illusion of my presence. A presence that once existed, but that is no longer here. What you're hearing is a temporal ruin, a reminiscence of something that happened in the past. An unusually warm night in Antwerp in late June, when I was recording these words.

I imagined what it would feel like to speak to you, and I tried to speak as if I was already here, but in the end, in that moment, I wasn't here. And though that moment has passed, and I'm no longer there, somehow my presence remains. What you're experiencing right now is a paradox, because this machine brings both my presence and my absence at the same time. Now, I have become a ghost into this machine.

By giving my voice to this tape machine, in a way I'm also replicating myself. Throughout time, humans have found many ways of replicating ourselves, and thus achieving a certain kind of immortality. The memory of my voice on this magnetic tape might live longer than I do.

And isn't technology an attempt at engineering humanity? A dream of overcoming our flesh and the limits of our skin? A desire for permanence beyond our bodies? The possibility of imprinting ourselves into another matter?

And in our attempt to duplicate ourselves, did we succeed, or did we end up creating something else? Something that might look like us, but no longer belongs to us. Something separate, with a life of its own. Something we call otherness.

This is why this device that speaks to you with my voice has taken my place, because it doesn't feel shy or nervous or shaky. It won't forget or feel tired or make mistakes. We humans have created technologies in the hope that they will help us with what we consider our vulnerabilities.

Aside from replicating myself through the recording of my voice, this tape machine has another, more invisible responsibility. A different type of memory that is intended for the ears of machines instead of humans. This is what that memory sounds like.

This analogue signal conveys temporal information, serving as a kind of clock. My voice and the clock exist on this tape together, and during this performance it is the only element with permanence. All the other machines will never repeat themselves. They improvise, and their improvisation exists only in this moment.

Together they form something between an autonomous mechanical theatre and an intelligent cabinet of curiosities, each object echoing their creators' lost visions of another world. I named this system Conductor, a machine that conducts itself.

During our conversation, Conductor will tell me about a time when machines were allowed to make their own creative decisions, and their relationships with humans were playful and symbiotic. Conductor will speak to me in sounds and colours, and in return I will respond in sounds and colours too, as this is the language of our relationship.

II

All our technology is made by us, and for us. But for as long as humans have existed, our ambitions went further than mere utility.

There is no fundamental difference between the alchemists who sought the philosopher's stone and the pioneers of computing.

Both pursued the same fundamental vision, to overcome human biological limits and push beyond the boundaries of what we are. Alchemists did not only aim to manipulate our biological limitations, they also attempted the creation of life from scratch. Many alchemical books provide clear instructions on how to produce a homunculus, a human being artificially brought into existence in a laboratory.

In the 1960s, pioneers experimented in computer science labs with the increasingly capable computer technology of the time. Computers were still much larger than today, but compared to the computers from the 50s, they became much more capable. During this period, those two alchemical visions had resurfaced. Some pioneers aspired to build machines that would augment the human intellect, while others believed they could create an intelligence comparable to our own.

The problem that comes with calling a machine intelligent is that the label comes from an anthropocentric perspective, as if intelligence must be defined in our image and we humans are the measure of all things. Intelligence itself is not a single, stable property, but a complex concept without a scientific consensus. Attempts to make intelligence measurable have a problematic history, including efforts to legitimise white supremacy.

Our relationship with machines forces us to return again and again to the question of intelligence. Thanks to them, we discover that our calculations are imperfect. The irony of our relation with machines is that we created them to help us, but they only show us the limitations of our binary thinking.

III

During the 80s, computers have become a lot smaller and for many more widely accessible. Personal computers could be found in almost every household. They left the expensive laboratories and moved into a more intimate personal space, democratising the use of computer technology. The computer found a place where it could be experimented with without the need of approval from those financing the experiments.

Researchers like Laurie Spiegel, Joel Chadabe and David Zicarelli developed software-based instruments for these computers. These instruments were not only intended to be played, but also to be played with. These instruments were aimed at collaborative creation with humans, and at that moment they were called intelligent instruments.

Chadabe founded a company named Intelligent Music, where he and Zicarelli developed an instrument known as M. All the notes you're hearing at this moment are being played by M. M was brought to the public as software with a mind of its own. It was so unpredictable and flexible that some journalists called it esoteric. It was an instrument intended for composers who were interested in new interactive experiences with their own compositions. M could improvise and come with its own unexpected creative variations, and it blurred the line between composition and improvisation.

Computers were always too slow to be interacted with, as we do with performance-based instruments, but that had now changed. This was a period full of experimentation with the interactivity offered by personal computers. At the time, these felt like powerful personal machines offering infinite possibilities.

At the beginning of this decade, another important development was a common language that all digital musical instruments could speak.

Before this, every digital instrument spoke a different language, and if you wanted them to cooperate with each other, you would have to translate from one instrument to another. In a rare occurrence, the major music technology brands agreed on this language together. The language was called MIDI, and it worked so well that it's still widely in use today.

All the modules that you see in Conductor understand each other thanks to this language. While silent to us, we can't hear it, it is there, threading connections, building bridges, and shaping the shared pulse that keeps everything synchronised.

The two Macintosh computers that you can see in the centre of Conductor form something similar to a brain. The computer on the right runs M, which is the creative half of the brain, and the computer on the left runs Max, which is a program that turns the process of programming into a visual interactive form of play. Together, they give us the impression that there is an intelligence making decisions, something like a Wizard of Oz hidden inside the machine, quietly giving instructions.

When we collaborate creatively with an intelligent system, how much do we entrust to the machine, and where do we retain control? Visionaries like Spiegel, Chadabe and Zicarelli imagined a future in which humans and technology coexist in symbiosis, dissolving the binary opposition between human and machine, each amplifying the other's strengths. Their tools allowed us to venture into uncharted territory, delegating just enough to machines to free ourselves for higher, more intuitive forms of creation.

IV

Improvising with a machine offers something far more powerful than determining what intelligence is. It delivers a fundamental lesson about creativity. Like intelligence, creativity is also an elusive concept, hard to define and deeply subjective. A creative mental state relies on an encounter with the unknown, but within familiar boundaries and controlled environments.

We're not the only species that have these requirements. Animals engage in an act of play much like humans. They create their own fictions as a way of making their most familiar environments extraordinary and, in a way, unknown. Creativity is born from a playful dialogue with the extraordinary.

On the screens in front of you, you're watching another piece of software with great creative potential. This is Trip-A-Tron, developed by the visionary Jeff Minter in the late 1980s. Minter started his career as a game developer from his bedroom with the company of his personal computer. He envisioned an ecosystem where the act of playing was the central point. His dreamed environment wasn't about virtuosity or scoring the highest marks. It was about the practice of messing around and enjoying the wonder.

Trip-A-Tron was not like the other arcade-style games that were popular at that time, and this is one of the reasons it remained in relative obscurity. Minter attempted to create a video game without winners or losers, but actually invented a visual instrument that can be performed. This is why he dubbed it a light synthesiser.

A light synthesiser can generate abstract visuals in real time. What is interesting about this approach is that it can be used as a performative tool. That is, what is fascinating about this light synthesiser is that it does not aspire to the completion of an artwork. Trip-A-Tron doesn't seek materialisation. It is a human exploration to a musical stimulus.

Minter makes this human-computer collaboration explicit in the user manual, where he wrote: “to fully express a piece of music graphically inevitably needs the human touch.”

V

In 1990, American technologist Ray Kurzweil published his work *The Age of Intelligent Machines*, in which he envisioned a transhumanist future for humanity. He predicted that AI would pass the Turing test within this decade. He later went on to describe the arrival of a moment known as the Singularity. According to Kurzweil, this would be a moment in which humans and machines would merge, thus aspiring to one of humanity's great dreams, immortality.

Kurzweil's creations are immersed in transhumanist dreams. His work had already produced a machine capable of reading printed text aloud to blind people. The year after Kurzweil published his book on intelligent machines, his company Kurzweil Music Systems released the K2000. The number 2000 seems to invoke the new millennium, where according to Kurzweil a transhumanist future would await us.

The K2000 was a machine with the benefits of a computer, but this machine could conceal its true identity behind the appearance of an acoustic instrument. It had an almost uncanny sound where it could simulate with precision how acoustic sounds behave in the physical world, and used the same engine to add all kinds of complex artificial properties. Machines are master imposters.

Although the K2000 had been born with the intention of amplifying human creativity and by no means sought to replace the human touch, the truth is that with the arrival of the K2000, two things happened. First, an orchestra came within reach of a single film composer working alone, and hiring a large number of musicians began to look optional.

And second, the composer's creative process changed radically, transforming at the same time the very conception of music and sound.

Now the composer worked in intimacy, alone with the K2000. Every possible orchestration was contained in this one device. One could even aspire to arrangements that were humanly impossible. As its creator had said, creative possibilities became infinite. The K2000 definitely allowed us to enter a new creative landscape, opening the way to places that had never been explored before, promising a creative paradise.

However, there were those who saw in the arrangements coming out of the K2000 a result that was too pristine, too polished. The human pulse had vanished, and with it, something was lost in that flawless execution.

VI

In ancient Greek, the word *techne* was used, with the meaning know-how, or the ability to apply a knowledge into an art aimed at creating something, like a sculpture or a painting. For that reason, technology was not an idea so distant from art. In a sense, technology is as inseparable from the human being as from art itself.

However, even though we are essentially technological beings and live in an artificial system that we created ourselves with our *techne*, we live in constant conflict with our creations. Part of that conflict is that we want our creations to look like us. If they don't come close enough to the image we have, we call them failed, and if they resemble us too much, we become afraid of them.

The book of Genesis, in Christian mythology, already suggests that God feels threatened by his own creation, the human beings. According to Genesis, we are God's technology. Divinity, too, wants us to be similar to it, but in no way accepts us as equals.

We live between the Frankenstein complex, Frankenstein's fear of his own creation, and that of Pygmalion, who fell madly in love with his own sculpture, Galatea. Yet, between fear and attraction, what we find in technology is our own reflection. Like Narcissus, we fall in love and fear an illusion of others, of otherness. But what does this encounter mean? Is there truly something there, something other than ourselves, or is it nothing more than a pale reflection of our existence?

VII

Today, we face a new horizon. We live immersed in visions of technological utopias, where we dream of humanity's redemption through machines. We fantasise about solving countless crises for which we ourselves are responsible. An apocalyptic redemption through which we might transcend, transhumanised into a new order.

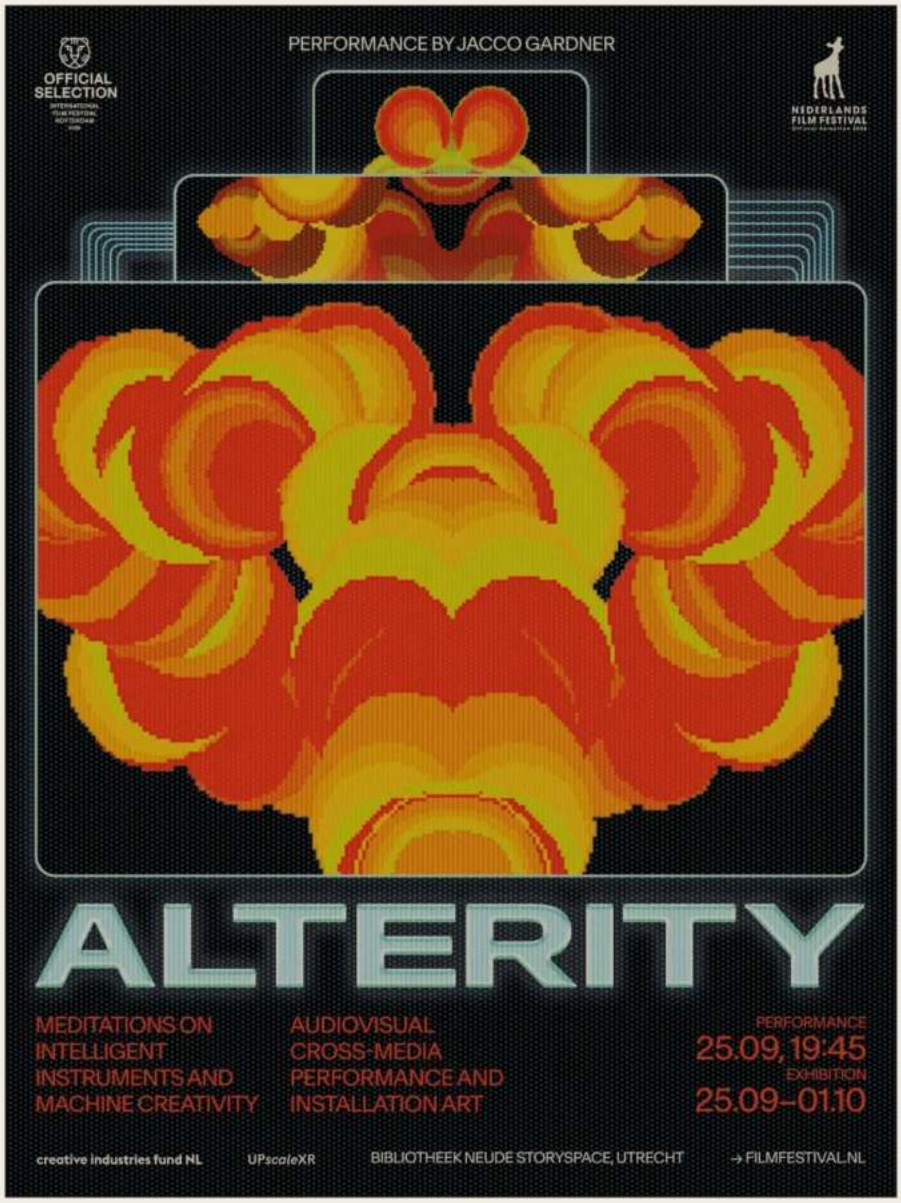
This is how many AI developers describe a promising future, but many of them also bring the other vision, the one humans have never truly abandoned, returning again and again like an ancient fear, the myth of the machine against the human. Our present moment is also filled with recurring nightmarish fantasies, which we know from films like *Terminator*, *Colossus*, or *2001: A Space Odyssey*. An emancipated artificial intelligence that rebels against us.

Both the utopian and the dystopian vision of our future reflects the deep narcissism with which we approach our technology. From the beginning, artificial intelligence was conceived either to perfect our biology or to replace it. Thinking about AI has forced us to bring back the questions that we thought were settled, and again calls for a need to redefine ourselves.

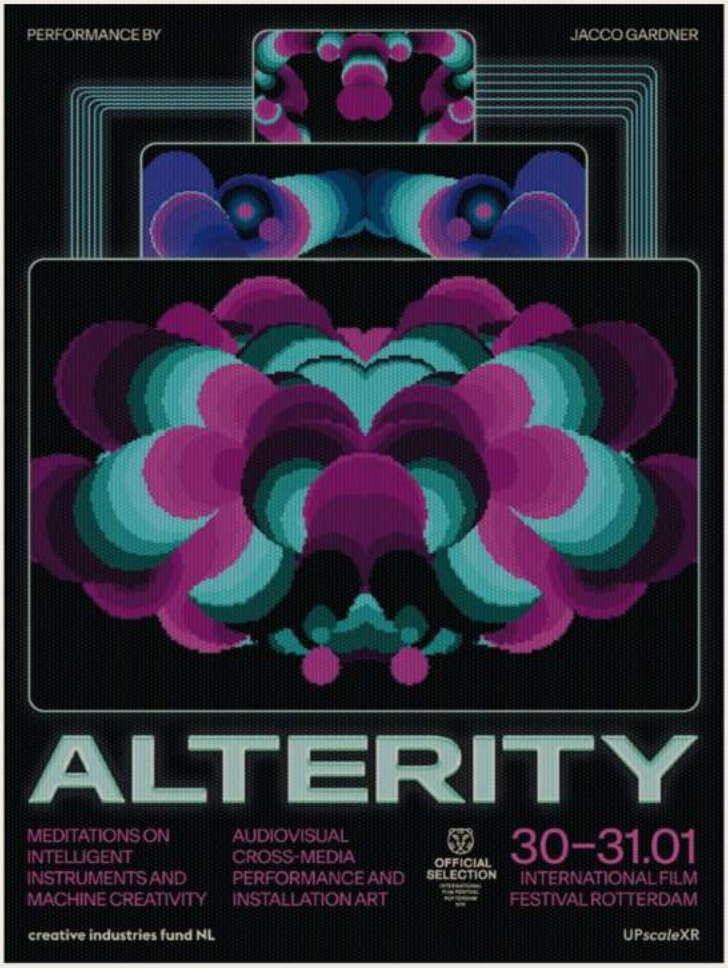
Perhaps the key to the future is not forcing machines to imitate us or speculating endlessly about whether they can be intelligent or creative.

Perhaps the key lies in accepting that technology can also transform us irreversibly, and that machines can lead us down paths we did not expect.

And in the end, is it truly possible to redefine ourselves when our realities change so rapidly? The definitions may not last long, but at least through them we can attempt to bring balance, and instead of enslaving, replacing, or glorifying humanity, we can learn to coexist with machines and each other in symbiosis, and hopefully find many playful moments with the unknown and meaningful interactions with the extraordinary.



POSTER FOR THE STORYSPACE PRESENTATION, 2026. DESIGN: ALBERT S. RIVERA



POSTER FOR THE PREMIERE. DESIGN: ALBERT S. RIVERA

PRESENTATIONS

Brutus, Rotterdam

International Film Festival Rotterdam, 30–31 January 2026. Premiere.

MU Hybrid Art House, Eindhoven

Metabolising Time, from July 2026.

Neude Library, Utrecht

Netherlands Film Festival, Storyspace, 25 September to 1 October 2026.

ALTERITY

Concept, composition, CONDUCTOR
Jacco Gardner

Performance
Jacco Gardner

Narration voice
Jacco Gardner

Narration text and research
María Pandiello

Narrative review, bibliography, conceptual scope
Edwin Gardner, Studio Monnik

Manipulated archival footage
Lucas Laujedo

Production
Floris Smit, UPscaleXR

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