

(A)I Tell You, You Tell Me

Three Encounters for
Humans/Machines

4.5.
– 24.11.24

Anne Duk Hee Jordan
robotlab
Hertzlab

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(A)I Tell You, You Tell Me. Three Encounters for Humans/Machines

The exhibition *(A)I Tell You, You Tell Me. Three Encounters for Humans/Machines* dovetails with the current discourse on artificial intelligence (AI) and digitality as well as with our relationship to its many forms and facets, its understanding and misunderstandings. Our lives have long been shaped and interwoven by the diverse effects of digitization. At the same time, the number of interfaces with intelligent machines continues to grow – be it through intelligent search algorithms, virtual language assistants, humanoid care robots, or AI-generated music and art. This leads to both fascination and unease, but above all to many unanswered questions.

Artificial intelligence can be defined as a scientific discipline that reproduces intelligent processes in artificial systems. This results in technical entities that simulate human behavior – in the field of facial and object recognition, the translation of natural languages, creative production, or medical diagnosis. The basis for this thinking, which is based on statistical analysis, is vast amounts of data and algorithms; that is, step-by-step instructions which when executed exactly lead to the desired goal.

Unlike conventional algorithmic systems, however, AI can use machine learning or deep learning to create its own

rules for its computations. Based on the data fed in, the algorithms develop, change, adapt, and constantly learn. These processes are no longer clearly determined, only the initial parameters and the goal towards which the learning process has been optimized. This enables AI-based systems to interact with users, make independent decisions, and perform computational tasks that are inconceivable for the human brain.

The resultant usefulness for various research and application areas appears to be just as great as the unpredictability of the outcomes. This is because the processes between input and output are difficult to understand, even for experts. They are therefore compared to the complex, opaque character of a black box. For this reason, the term “artificial intelligence,” which was coined by the American computer scientist John McCarthy (1927–2011) at the Dartmouth Conference in 1956, is in general nebulous and polarizing today. The associations linked with it range from dystopian doomsday fantasies of humankind to utopian scenarios for saving the world.

Although AI has a long tradition and history, development and performance have made an enormous leap forward in recent years, due to increased computing power and the availability of immense datasets, so-called big data. At the same time, research and development work has increasingly shifted to the private sector. AI is now embedded in an extractive industry that follows the profit maximization strategies of just a few technology companies. It is an undertaking that consumes a vast amount of natural resources – from raw materials to human labor and energy.

No matter how opaque, intangible, and incomprehensible artificial neural networks might seem, they are never purely abstract or neutral. This is because the datasets with which they are trained are only ever based on a consciously chosen section of the world and thus are always a form of politics. They mold so-called “operative images” (Kate Crawford) that represent the world exclusively for the machine. They are limited, abstracted, and often erroneous, such that they produce or reproduce bias. The learning process of an AI thus follows a normative logic that is used to specify how the world should be seen and evaluated. Its mystification obscures underlying structural power relations.

All this requires a conscious interrogation of existing mechanisms: *Who is using AI, why and what goals are they pursuing? Does a given application improve the lives of all or does it only serve to increase the profits of the few? AI systems influence the reality of our lives in many different ways. They are closely interwoven with us and hold a mirror up to us. To clear the fog away that surrounds the phenomenon of artificial intelligence, we must therefore first and foremost look at ourselves and consider the question of how we – and this “we” includes both humans and machines – want to coexist and shape a future together. Engaging artistically with AI and digitality takes on a decisive function at this point: it can create points of contact with technology that enable new perspectives, new aesthetics, and other forms of exchange, far removed from political and market-oriented areas of application.*

With this in mind, the exhibition (A)I Tell You, You Tell Me is not intended as a comprehensive overview exhibition

or as a playground for the latest AI-based applications. Rather, it is conceived as an interactive field of action where we can enter into dialogue and exchanges with AI and algorithmic systems, opening up a space for mutual learning. Three artworks have been specially commissioned for the occasion by the ZKM: *AEIOU* (2024), a performative installation with two industrial robots by the Karlsruhe-based artist group robotlab; *Electrify Me, Baby* (2024), a multisensory installation by Berlin-based artist Anne Duk Hee Jordan; and *Flatware, Hardware, Software, Wetware* (2024), an interactive AI-based installation by the ZKM Hertzlab. These projects all invite us to explore intuitively our relationship to this rapidly developing key technology, to question existing prejudices, and to reflect upon our own selves and the supposedly technological “other.”

With a comprehensive mediation program, the exhibition is a place where people, ideas, and technologies meet, a place of learning, experimentation, and research, in which the complex interactions between human and machine are illuminated and the question is asked what we can learn from these encounters and what conclusions we can draw from them for a future society shaped by the coexistence of human and non-human entities.

Our everyday lives today are shaped by technology. This includes artificial intelligence (AI), for example.

We now encounter AI everywhere. It is behind search engines, voice user interfaces, and translation programs. It answers our questions in the form of chatbots. Text and image generators also enable us to use AI as a creative tool. However, AI can also be used to create fake images and videos. Whether important decisions should be left to AI is therefore the subject of controversial debate.

It is not yet possible to predict what developments will follow in the years to come. This can unsettle many people.

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1 The term "reflACTION_space" combines the words reflection, action, and space. It thus unites the most important ideas of the mediation program and is intended as an invitation to reflect and experiment together.

The decision lies with us as to how and for what purpose we use AI as a tool. Because behind every AI is a human being.

AI draws on data that already exists. This means that it reproduces past or currently existing conditions in images and texts, among other things. It holds a mirror up to us – for example, when images are generated or texts are written that include clichés or are discriminatory. Ultimately, artificial intelligence reflects social conditions.

But it is up to us to determine how we want to coexist and interact with each other in the future.

reflACTION_space!¹

(A)I Tell You, You Tell Me – We decide which stories AI tells. In the reflACTION_space you will find space to reflect, get active or simply to relax!

robotlab *AEIOU*

2024

Founded in 2000 by Matthias Gommel, Martina Haitz, and Jan Zappe in Karlsruhe, the artist group robotlab explores the multilayered aspects of human-machine relationships in their works. The starting point for this are experimental situations in the form of performative installations that evoke encounters between industrial robots and people.

Due to the ongoing further development of mechanical and electronic capabilities, robots have long since found their way into many areas of our lives – in the industry, service, and care sectors. However, actual points of contact in public and private spaces are still a rarity. This is where the work of robotlab comes in: to test behavioral patterns for such human-machine interactions, which have become part of our society and thus its associated culture.

Their latest work, *AEIOU* (2024), addresses the apparently bizarre realities arising from the synergies of robots and artificial intelligence. Two industrial robots write machine-generated texts on long conveyor belts, and invite us to participate in this self-reflexive dialogue between two technical entities. The controlled, executing machine of the 20th century has apparently evolved into a 21st century, self-controlling, self-thinking, and self-acting machine that adopts human behavior through using AI. Instead of execut-

ing linear, process-optimized work sequences on the assembly line, here the machines write about their own changing identity in a cyclical process, thus initiating a collective process of reflection on the role of the machine in society.

AEIOU is a further development of the work *manifest* realized by robotlab in 2008, in which a robot wrote manifestos consisting of several thesis-like sentences that the machine generated autonomously. To do this, the machine used terms from the fields of art, philosophy and technology as well as a collection of sentence structures from legal and fictional legal texts, which were repeatedly recombined using algorithmic processes. The combination of system and chance not only made each manifesto a numbered, unique one of a kind, but also created a sort of robot poetry.

The work shown in the exhibition builds on this: The robots select from quotes in the robot theory of recent decades, transform these into their own statements, and use machine learning to form their own assessment of the generated sentences. The audience participates in the learning process by submitting their own evaluations of the generated texts. *AEIOU* illustrates the mutual influences and close entanglements between humans and machines.

On the one hand, the title *AEIOU* refers to language and writing in general through listing the vowels of the alphabet. And on the other, it references Artificial Intelligence, Emotional Intelligence, I, Other, Input/Output, and U (short for *You*).

**What kind of
information about
you can be found
on the Internet?**

What might sentences look like that an AI would write about you based on this information?

ZKM Hertzlab

Flatware, Hardware, Software, Wetware

2024

The project *Flatware, Hardware, Software, Wetware* (2024) is an AI-based work by the ZKM Hertzlab, the artistic research department of the ZKM, which was developed jointly by Yasha Jain, Bernd Lintermann, Tina Lorenz, and Dan Wilcox. The interactive installation uses a modified form of the so-called “AI-based wall labels” for artworks that were developed as part of the *intelligent.museum* research project.

A series of electronic and mechanical components (hardware) and the software, the program, determine which computer-based tasks are executed. According to these specifications, an AI creates constantly changing individual interpretations of classic “flatware” (i.e. works of art that generally hang on the wall) from the ZKM collection, in the form of work texts. The selection of works presented seeks to encompass the media diversity of the ZKM collection within the given category of “flatware.” In addition to paintings and drawings created by hand or generated by computer, prints, and photographs, collages and kinetic works are also on show. RFID chips (RFID: Radio Frequency Identification), programmed by each visitor, are the keys that open access to the installation and the works.

Only when the human “wetware”¹ activate the smart labels with the chip does the AI generate a new text. When we now have such versatile technology at our disposal, why should such texts always be the same? What should be the parameters for the content? Is the content conveyed correctly or incorrectly?

The presumed truth of the description of an artwork, which is normally laid down by the authority of the museum, turns out here to be disinformation that encourages the viewers to make their own interpretation. In this way the installation questions our subliminal trust in the written text and undermines the cultural institution’s presumed interpretative sovereignty over what we see. Only at second glance does it become clear that the supposedly one-way flow of information from the AI is actually based on a reciprocal dialogue between human and machine. This is because our input for personalizing the chip has an influence that cannot be overlooked on the meanings presented on the wall labels.

1 The term “wetware” is derived from the computer-related concept of hardware or software. However, it refers to biological life forms and is mainly used in the field of bioinformatics, for example, when biological elements such as cells are implemented in computers. In the context of this installation and in the wider tech industry, “wetware” is understood as a synonym for people.

ZKM Collection Works in the Installation

Georg Baselitz
Blonden anderer Stelle
1992

Oil on canvas, 290 × 290 cm

ZKM Karlsruhe

Werner Büttner
Der romantische Imperativ
2007

Oil on canvas, 240 × 190 cm

ZKM Karlsruhe

John Cage
Where R = Ryoanji 14 R/2 - 6/87
1987

Pencil on paper, 25.5 x 48.5 cm

ZKM Karlsruhe

Melanie Chacko
ohne Titel
2010

Wood, coal, motor, magnet,
160 × 160 × 10 cm

ZKM Karlsruhe

Herbert W. Franke
Quadrate
1970

Computer-generated graphic;
plotter drawing, screen print on
Schoellershammer cardboard
(computer: Siemens 4004,
output: Calcomp drum plotter),
70 × 50 cm

ZKM Karlsruhe

Fergus Greer, Leigh Bowery
*Leigh Bowery,
Session 1 / Look 2*
1988

Color photograph; digital C-print,
21.9 × 121.9 cm

ZKM Karlsruhe

Magdalena Jetelová
Iceland Project
1992

Photograph; silver baryta paper
on aluminum, 125 × 186 cm

ZKM Karlsruhe

Ed Kiender
Raumstilleben
1965

Photo print, oil, pencil on canvas,
80 × 80 × 6 cm

ZKM Karlsruhe

Martin Kippenberger
Deutscher Eierknaller
1996

Oil on canvas, 135 × 101.5 cm

ZKM Karlsruhe

Imi Knoebel
Grace Kelly I-94
1994

Acrylic on wood, 6 pieces,
each 50 × 35 cm

ZKM Karlsruhe

Lynn Hershman Leeson
Reach, from the series *Phantom Limb*
1986

Digital print on cardboard, 135 x 101.5 cm

ZKM Karlsruhe

Armin Linke
CERN Computer Control Rooms,
Geneva Switzerland
2000

Color photograph on aluminum,
50 × 60 cm

ZKM Karlsruhe

Frieder Nake
Hommage à Paul Klee Nr. 2
1965

Computer-generated graphic; plotter
drawing, screen print on paper
(computer: Standard Elektrik Lorenz
ER56, programming language: ER56
machine language, software: individual
software ("COMPART ER56"), output:
Zuse Graphomat Z64), 50.1 × 50.1 cm

ZKM Karlsruhe

Sigmar Polke
Ohne Titel
1994

Gouache on paper, 99.4 × 69.8 cm

ZKM Karlsruhe

Purchase made possible by the kind
support of the S-Finanzgruppe
(Sparkasse Karlsruhe, LBS, OVA
Versicherung Mannheim, Südwest LB)

Dieter Roth
Kleiner Sonnenuntergang
1969

Slice of sausage, paper in plastic bag,
42 × 31.5 cm

ZKM Karlsruhe

Thomas Struth
Musée du Louvre IV, Paris 1989
1989 / 1993

Color photograph; Cibachrome,
180 × 214 cm

ZKM Karlsruhe

Jean Tinguely
Meta Matic Drawing
1960

Watercolor on paper, 21 × 15 cm

ZKM Karlsruhe

Wolf Vostell
Autobahnkreuz TV
1970

Black-and-white screen print on
cardboard, 73.5 × 99 cm

ZKM Karlsruhe

Ingrid Wiener
... sehe immer wieder gelbe Waden...
Dawson 13.09.99, from the series
Traumbilder
1999

Watercolor and pencil on watercolor
paper, 23 × 39 cm

ZKM Karlsruhe

Ingrid Wiener
... schlafe schlecht... Krefeld 24.01.00,
from the series *Traumbilder*
2000

Watercolor and pencil on watercolor
paper, 23.5 × 31.5 cm

ZKM Karlsruhe

Ingrid Wiener
... träume ich soll einen Traum...
Dawson 19.07.01, from the series
Traumbilder

2001

Watercolor and pencil on watercolor
paper, 24.5 × 35 cm

ZKM Karlsruhe

**Do you think
that the
content you
are shown
should be
customized
for you?**

**Who decides
what
information
is true or
important?**

Anne Duk Hee Jordan

Electrify Me, Baby

2024

The artist Anne Duk Hee Jordan, who is Professor of Digital Media Art at the Karlsruhe University of Arts and Design (HfG) since 2023, uses nature and biological phenomena as metaphors to engage in an often-ironic dialogue with art, science, technology, society, and identity. In her works, she creates hybrid worlds that defy binary thinking and, with a more-than-human perspective, counter anthropocentrism (the position that puts people at center).

With her multisensory installation *Electrify Me, Baby* (2024), she creates a holistic cosmos, between natural and technical phenomena. In four chapters the artist takes us through the different layers and atmosphere of the Earth: natural landscapes on the Earth's surface, various weather phenomena within the troposphere – the lowest layer of the Earth's atmosphere (approx. 0–15 km altitude), into the vastness of the deep sea, through the Earth's crust, and into the Earth's mantle bubbling with magma. In the installation, we encounter various elements that are also depicted in the video, such as swirls of water, lightning, squalls, and swirls of leaves, so that digital and analog realities merge. The so-called *critters*, small low-tech robots, cross our path, driving around seemingly aimlessly and without any purpose. The artist counters the efficiency of

today's technologies with her concept of "artificial stupidity," which allows for mistakes and being unproductive in order to readjust our relationship to our planet. In a humorous way, the installation invites us to reflect on our own existence in a world in which all beings are inextricably linked.

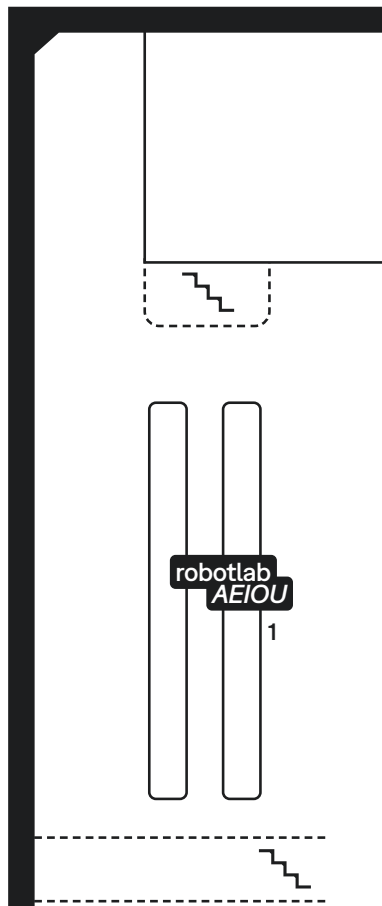
This new installation is framed by a selection of older works that demonstrate the artist's way of thinking and working as well as her diverse visual imagery. The video work *Brakfesten/La Grande Bouffe* (2022), which Jordan realized in collaboration with the curator and visual researcher Pauline Doutreluingne, is also on display. The video was shot over a period of two years in the natural reservoir of Södra Hällarna on Gotland, Sweden, where the elm forests are threatened by the elm leaf beetle. However, what at first glance looks like utter destruction, reveals on closer inspection that there is a complex system of numerous interdependencies between trees and beetles. The latter lay their eggs in the tree bark, from which larvae hatch. Those in turn form symbiotic relationships with fungi and attract insects, birds, and other animals. This results in a self-regulating and self-optimizing cycle of decay and renewal that marks the fundamental principles of all life and biological/natural intelligence. In addition to the video, the project is accompanied by photographs, concept drawings, and a model.

Anne Duk Hee Jordan is representative of a new generation of media artists who address serious and pressing issues with humor and playful experimentation thereby introducing new perspectives. The works of this artist make

us aware that we cannot view discourses about our relationship with new technologies in isolation from the larger overall context of our planet, and that mutual learning from one another is both possible and absolutely necessary.

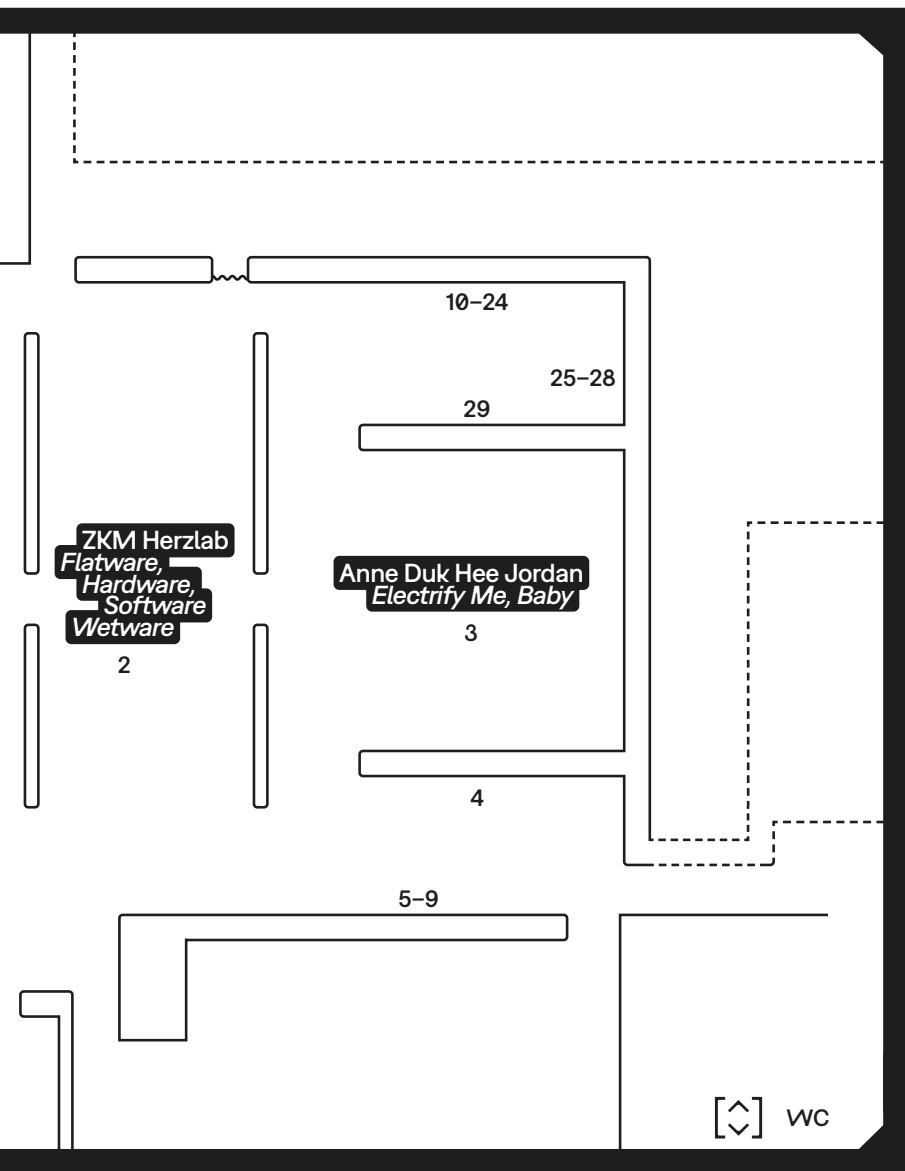
**Does technology
always have
to be purpose-
driven and
serve progress?**

- | | | |
|-------------------------------|----|---------------------------|
| robotlab | 12 | Sketches for |
| 1 AEIOU | | <i>Brakfesten #2</i> |
| ZKM Hertzlab | 13 | Sketches for |
| 2 <i>Flatware, Hardware,</i> | | <i>Brakfesten #3</i> |
| <i>Software, Wetware</i> | 14 | Sketches for |
| Anne Duk Hee Jordan | | <i>Brakfesten #4</i> |
| 3 <i>Electrify Me, Baby</i> | 15 | Model for |
| 4 <i>Brakfesten /</i> | | <i>Brakfesten /</i> |
| <i>La Grande Bouffe</i> | | <i>La Grande Bouffe</i> |
| 5 <i>Brakfesten /</i> | 16 | Sketches for |
| <i>La Grande Bouffe,</i> | | <i>The Worm</i> |
| <i>Jump Spider</i> | 17 | <i>Untitled</i> |
| 6 <i>Brakfesten /</i> | 18 | <i>Forgotten Species</i> |
| <i>La Grande Bouffe,</i> | 19 | <i>Remember</i> |
| <i>Larvae</i> | 20 | <i>nudi</i> |
| 7 <i>Brakfesten /</i> | 21 | <i>THIS IS MY WAY OF</i> |
| <i>La Grande Bouffe,</i> | | <i>TELLING YOU,</i> |
| <i>Larvae</i> | | <i>I NEVER LOVED YOU</i> |
| 8 <i>Brakfesten /</i> | 22 | <i>The Secret Life of</i> |
| <i>La Grande Bouffe,</i> | | <i>Albertus Seba</i> |
| <i>Snailing</i> | 23 | Sketch for |
| 9 <i>Brakfesten /</i> | | <i>Story of Corals I</i> |
| <i>La Grande Bouffe,</i> | 24 | Sketch for |
| <i>The Bark Beetle</i> | | <i>Story of Corals II</i> |
| 10 <i>Brakfesten /</i> | 25 | <i>Story of Corals</i> |
| <i>La Grande Bouffe,</i> | 26 | <i>Only Beetles Are</i> |
| <i>The Bark Beetle Larvae</i> | | <i>Having Sex</i> |
| 11 <i>Sketches for</i> | 27 | <i>Herr der Krähen</i> |
| <i>Brakfesten</i> | 28 | <i>The End Is Where</i> |
| 12 <i>Sketches for</i> | | <i>We Start From</i> |
| <i>Brakfesten #1</i> | 29 | <i>Worlds Away</i> |



← ZKM Foyer





List of Works

1 robotlab
AEIOU
2024

Robot installation; two industrial robots, two conveyor belts, recycled regrind, various software, installation dimensions variable

Courtesy robotlab

Collaboration AI, electronics and concept: Nikolaus Völzow
Collaboration technical construction: Christofer Gutmann, Thomas Schwab
Robots: KUKA Deutschland GmbH

Produced in collaboration with the ZKM Karlsruhe

2 ZKM Hertzlab
Flatware, Hardware, Software, Wetware
2024

Various works of the ZKM collection, AI-based work descriptions, installation dimensions variable

Idea: Alistair Hudson

Realized by: Yasha Jain, Bernd Lintermann, Tina Lorenz, Dan Wilcox

ZKM Karlsruhe

3 Anne Duk Hee Jordan
Electrify Me, Baby
2024

Multisensory installation; vinyl print, mirrors, various objects (partly motorized), robots, wind installation, Jacob's ladder, (interactive) projection, color, sound, 16 min., installation dimensions variable

Courtesy Anne Duk Hee Jordan

Video mapping: Simone Serlenga, Simone Franco
Production, design studio: Andrea K. Macias-Yañez
Technology „Artificial Stupidity“: Andreas Marckscheffel
Sound: Sasha Perera
Sound mix: Gio Conti
Jacob's ladder: Loan of the Karlsruher Institut für Technologie (KIT)

Produced in collaboration with the ZKM Karlsruhe

4 Anne Duk Hee Jordan
Pauline Doutreluingne
Brakfesten / La Grande Bouffe
2022

HD film, color, sound, 28:14 min.

Courtesy Anne Duk Hee Jordan, Pauline Doutreluingne and alexander levy, Berlin

Sound: Midori Hirano

Commissioned by Public Art Agency Sweden
Produced by Public Art Agency Sweden in collaboration with Baltic Art Center

- 5 Anne Duk Hee Jordan
*Brakfesten / La Grande
Bouffe, Jump Spider*
2022

Archival pigment print on
Hahnemühle Photo Rag Baryta,
custom made elm frame,
66 × 100 cm

Courtesy Anne Duk Hee Jordan and
alexander levy, Berlin

- 6 Anne Duk Hee Jordan
*Brakfesten / La Grande
Bouffe, Larvae*
2022

Archival pigment print on
Hahnemühle Photo Rag Baryta,
custom made elm frame,
66 × 100 cm

Courtesy Anne Duk Hee Jordan and
alexander levy, Berlin

- 7 Anne Duk Hee Jordan
*Brakfesten / La Grande
Bouffe, Snailing*
2022

Archival pigment print on
Hahnemühle Photo Rag Baryta,
custom made elm frame,
66 × 100 cm

Courtesy Anne Duk Hee Jordan and
alexander levy, Berlin

- 8 Anne Duk Hee Jordan
*Brakfesten / La Grande
Bouffe, The Bark Beetle*
2022

Archival pigment print on
Hahnemühle Photo Rag Baryta,
custom made elm frame,
66 × 100 cm

Courtesy Anne Duk Hee Jordan and
alexander levy, Berlin

- 9 Anne Duk Hee Jordan
*Brakfesten / La Grande
Bouffe, The Bark Beetle
Larvae*
2022

Archival pigment print on
Hahnemühle Photo Rag Baryta,
custom made elm frame,
66 × 100 cm

Courtesy Anne Duk Hee Jordan and
alexander levy, Berlin

- 10 Anne Duk Hee Jordan
Sketches for Brakfesten
2022

Fiber pen on paper, 29 × 41 cm

Courtesy Anne Duk Hee Jordan and
alexander levy, Berlin

- 11 Anne Duk Hee Jordan
Sketches for Brakfesten #1
2021

Fiber pen on paper, 29 × 41 cm

Courtesy Anne Duk Hee Jordan and
alexander levy, Berlin

- 12 Anne Duk Hee Jordan
Sketches for *Brakfesten #2*
2021

Fiber pen on paper, 29 × 41 cm

Courtesy Anne Duk Hee Jordan and
alexander levy, Berlin

- 13 Anne Duk Hee Jordan
Sketches for *Brakfesten #3*
2021

Fiber pen on paper, 30 × 40 cm

Courtesy Anne Duk Hee Jordan and
alexander levy, Berlin

- 14 Anne Duk Hee Jordan
Sketches for *Brakfesten #4*
2021

Graphite pencil and fiber pen on
paper, 29 × 41 cm

Courtesy Anne Duk Hee Jordan and
alexander levy, Berlin

- 15 Anne Duk Hee Jordan
Model for *Brakfesten /*
La Grande Bouffe
2021

Wood, moss, leaves, straw, snail
shells, sal willow, hot glue and
plastic on cardboard backing,
60 × 49.5 × 24 cm

Courtesy Anne Duk Hee Jordan and
alexander levy, Berlin

- 16 Anne Duk Hee Jordan
Sketches for *The Worm*
2021

Fiber pen on paper, 56 × 76 cm

Courtesy Anne Duk Hee Jordan and
alexander levy, Berlin

- 17 Anne Duk Hee Jordan
Untitled
2020

Fiber pen on paper, 56 × 76 cm

Courtesy Anne Duk Hee Jordan and
alexander levy, Berlin

- 18 Anne Duk Hee Jordan
Forgotten Species
2016

Fiber pen on paper, 30 × 40 cm

Courtesy Anne Duk Hee Jordan and
alexander levy, Berlin

- 19 Anne Duk Hee Jordan
Remember
2016

Fiber pen on paper, 30 × 40 cm

Courtesy Anne Duk Hee Jordan and
alexander levy, Berlin

- 20 Anne Duk Hee Jordan
nudi
2019

Fiber pen on paper, 29.5 × 21.5 cm

Courtesy Anne Duk Hee Jordan and
alexander levy, Berlin

- 21 Anne Duk Hee Jordan
THIS IS MY WAY OF TELLING
YOU, I NEVER LOVED YOU
2018

Acrylic and pigment pencils on
paper, 30 × 40 cm

Courtesy Anne Duk Hee Jordan and
alexander levy, Berlin

22 Anne Duk Hee Jordan
*The Secret Life of Albertus
Seba*
2018

Acrylic and pigment pencils on
paper, 30 × 40 cm

Courtesy Anne Duk Hee Jordan and
alexander levy, Berlin

23 Anne Duk Hee Jordan
Sketch for Story of Corals I
2019

Fiber pen on paper, 30 × 40 cm

Courtesy Anne Duk Hee Jordan and
alexander levy, Berlin

24 Anne Duk Hee Jordan
Sketches for Story of Corals II
2019

Fiber pen on paper, 37.5 × 50 cm

Courtesy Anne Duk Hee Jordan and
alexander levy, Berlin

25 Anne Duk Hee Jordan
Story of Corals
2019

Pencil, acrylic and ink on paper,
56 × 76 cm

Courtesy Anne Duk Hee Jordan and
alexander levy, Berlin

26 Anne Duk Hee Jordan
Only Beetles Are Having Sex
2021

Oil on cardboard, 49 × 60 cm

Courtesy Anne Duk Hee Jordan and
alexander levy, Berlin

27 Anne Duk Hee Jordan
Herr der Krähen
2020

Pencil, acrylic and ink on paper,
56 × 76 cm

Courtesy Anne Duk Hee Jordan and
alexander levy, Berlin

28 Anne Duk Hee Jordan
*The End Is Where We Start
From*
2024

Acrylic and pigment pencils on
paper, 56 × 76 cm

Courtesy Anne Duk Hee Jordan and
alexander levy, Berlin

29 Anne Duk Hee Jordan
Worlds Away
2023

Archival pigment print on
Hahnemühle Photo Rag Baryta,
fluorescent orange plexiglass
frame, 124 × 240 cm

Courtesy Anne Duk Hee Jordan and
alexander levy, Berlin

Glossary

→ Algorithms

An algorithm is a precisely defined sequence of instructions for solving a problem such as analyzing data or making decisions. Algorithms are often implemented in computer programs.

→ Anthropocentrism

Anthropocentrism is a worldview that places people at the center: Human interests, needs, and values are placed above all other living beings, things, systems, or ideas. These are evaluated in terms of their usefulness or significance for humans. The anthropocentric system of thought is often criticized. From the perspective of climate ethics, for example, the finite nature of natural resources, the interdependence of all that exists and the planet, as well as the responsible treatment of nature are coming to the fore in the face of advancing climate change.

→ Automation

Automation refers to the automatically controlled operation of an apparatus, process, or system by mechanical or electronic

devices with as little human intervention as possible.

→ Bias

In a statistical analysis, bias refers to systematic errors. In the context of machine learning, this means that undesirable distortions or prejudices, for example in data sets or algorithms, can lead to unfair results. For example, facial recognition programs often only recognize people with white skin. These biases can arise in different ways, for example through incomplete or inaccurate data collection, subjective decisions taken during algorithm development, unequal representation in the training data, or unintentional adoption of human prejudices contained therein.

→ Big Data

The term big data describes an immensely large and complex accumulation of data that is weakly structured. It is also used to summarize a variety of digital technologies that enable the collection and evaluation of such data.

→ Black Box

In science, technology, and computer science, the term black box refers to a system that can be viewed on the basis of its transmission properties (input and

output) whose internal functions or mechanisms are not comprehensible to the user. The implementation, that is, the realization or execution, is opaque^(black).

→ Chatbot

A chatbot is a software application or web interface that mimics human-like conversations with a computer system – usually via text or voice input. The first chatbots were created back in the 1960s, but the new capabilities of machine learning have significantly expanded their functionality and improved their performance in recent years. In the form of virtual assistants such as Siri and Alexa, these applications have increasingly found their way into our everyday lives.

→ Chip

A chip is a small piece of semiconductor material that usually performs one or more functions. It is mounted on a circuit board and is used in electronic devices, such as smart phones and computers. For example, it can function as a microprocessor, that is, as a central processing unit or as a memory for data.

→ Data

Data are characters that represent information, such as measure-

ments or statistics, in the form of numerical values or formulas which in digital form can be transmitted or processed.

→ Deepfakes

The word deepfake is derived from the combination of the English terms deep learning and fake. A deepfake is audiovisual content that has been manipulated or newly generated, that is, faked using multi-layer machine learning software. For example, faces and voices in videos or audio files can be manipulated or imitated so that they appear convincingly real in order to misrepresent someone as doing or saying something that was not actually done or said.

→ Deep Learning

Deep learning is a branch of machine learning that is based on artificial neural networks consisting of multiple layers. These layers are used for learning more abstract and complex representations of data by gradually progressing from simple features to increasingly complex concepts. This enables deep learning models to recognize and understand patterns and structures in data autonomously and thus to learn independently. Unlike conventional machine learning, it is no longer necessary

for humans to intervene in this learning process.

→ Disinformation

Disinformation is the deliberate and often covert spreading of false information. The decisive difference to misinformation – incorrect or misleading information which may be spread unintentionally – is that disinformation is a deliberate act which aims to influence or deceive people and public opinion or to obscure the truth.

→ Entity

Derived from Latin, entity means “existing thing.” It describes an existence, a being, an abstract or concrete object, an independent, separate, or self-contained existence. In computer science, it refers to an identifiable, unique information object.

→ Flatware

The term flatware is used in the art world to refer to flat artworks such as paintings, drawings, or photographs that can be hung on the wall.

→ Hardware

Hardware is the generic term for the physical components (elec-

tronic and mechanical components) of a data processing system (computer).

→ Artificial Neural Networks

Artificial neural networks are a sub-field of machine learning and are based on the modeling of adaptive systems, loosely based on the functioning of the human brain. By repeatedly feeding the networks with large amounts of data and analyzing them, the learning algorithms continue to develop and learn to better classify the data and recognize correlations. The decisive factor here is that the calculated results are approximate values, that is, a statistical estimate of the most probable result.

→ Artificial Intelligence

Artificial intelligence (AI) is a branch of computer science and refers to the ability of a computer program to recognize and classify information in input data and thus make decisions or execute operations.

→ Machine

A machine is a technical device that uses energy to perform work. It consists of a combination of moving parts and mechanisms designed to perform specific functions. Machines come in a

variety of shapes and sizes and are used for different purposes, from simple mechanical devices such as levers and wheels to complex industrial equipment and robots.

→ Machine Learning

Machine learning is a field of AI which explores forms of computation that allow programs to change and adjust their internal parameters automatically – that is, without humans modifying the algorithms – in order to process data. The aim of machine learning is to be able to make predictions, recognize patterns, or make decisions based on the available data.

→ Prompt

In the context of generative AI – AI systems that are able to create completely new content such as images or text – a prompt is the input or request fed to an AI model to produce a specific type of output. The prompt serves as a starting point or guideline for the model to utilize its generative capabilities and provide an appropriate response or product.

→ Robot

A robot is a machine which operates on several axes and whose movements are freely program-

mable in terms of movement sequence, paths, and angles and it can be sensor-guided. Robots come in different forms and can be both stationary and mobile. They are used in a wide variety of environments such as social contexts, industry, or in space. The term itself has its origins in science fiction. It was coined by Karel Čapek and was first used in 1921 in his theatre play *R.U.R. (Rossum's Universal Robots)*.

→ Software

Software is a collective term for programs and the associated data that determine which tasks a software-controlled device, such as a computer, performs.

→ Wetware

Wetware is a term that is derived from the computer-related concept of hardware or software. However, it refers to biological life forms and is mainly used in the field of bioinformatics, for example, when biological elements such as cells are implemented in computers. In the context of this exhibition, as well as in the wider tech industry, wetware is understood as a synonym for people.

This glossary was created with the help of ChatGPT.

The Exhibition

Idea: Alistair Hudson

Curators: Clara Runge, Philipp Ziegler,

Curatorial assistance: Laura Schmidt

Project assistance: Gina Marie

Schwenzfeier, Janis Ströver

Museum communication: Janine Burger,

Lisa Bartling, Banu Beyer, Regine Frisch,

Alexandra Hermann, Cora Lugger,

Denise Neumann, Majuri Shanmugamani,

Ulrich Steinberg

Technical project management:

Anne Däuper

Technical development: Daniel Heiss

Scenography: Matthias Gommel

Graphic design: 2xGoldstein

Conservators: Marlies Peller, Leonie Rök

Registrar: Regina Linder

Collection officer: Sarah Donata

Schneider

Technical team: Martin Mangold,

Volker Becker, Claudius Böhm,

Mirco Fraß, Rainer Gabler,

Gregor Gaissmaier, Jan Gerigk,

Ronny Haas, Tobias Haller, Christof

Hierholzer, Werner Hutzenlaub,

Gisbert Laaber, Bernd Lintermann,

Christian Nainggolan, Marco Preitschopf,

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Scientific-artistic chairman:

Alistair Hudson

Chief executive officer: Helga Huskamp

Head of administration: Boris Kirchner

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