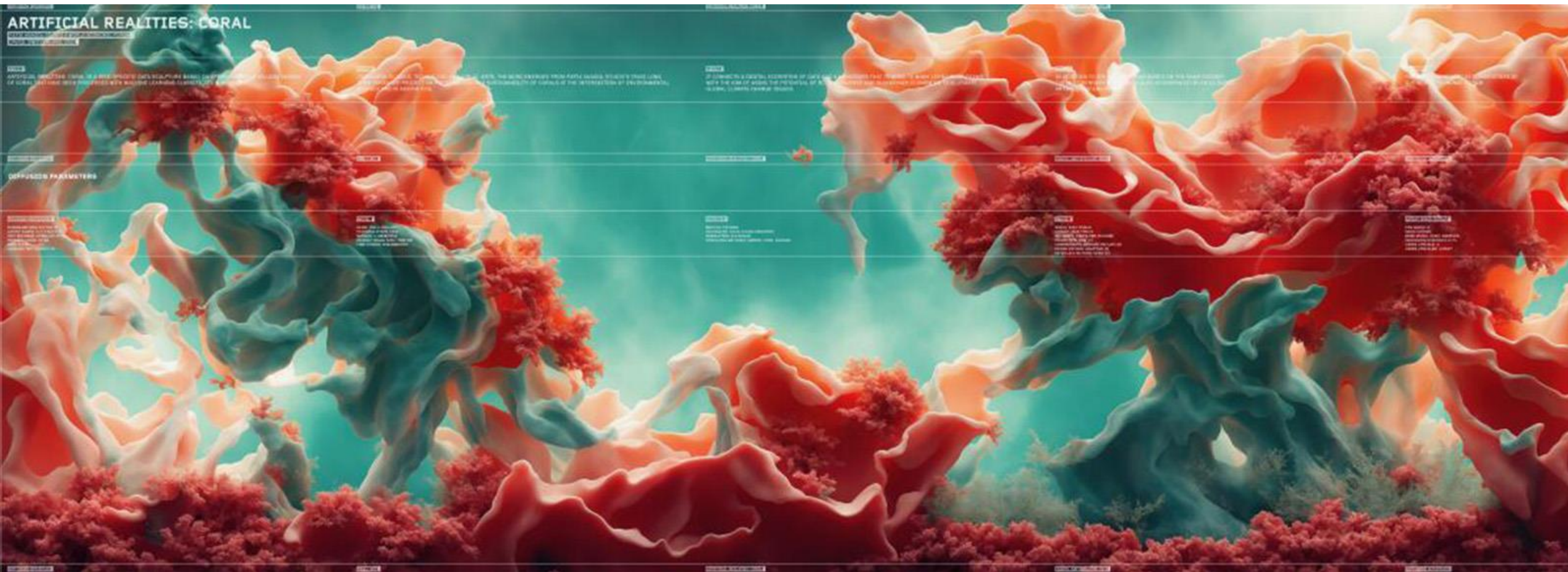




AI: More than Hum

Lecture 21 – AI, The Human and the Posthuman

Coexistent Perspectives (ADAA7000)

“I think it's quite conceivable that humanity is just a passing phase in the evolution of intelligence.”

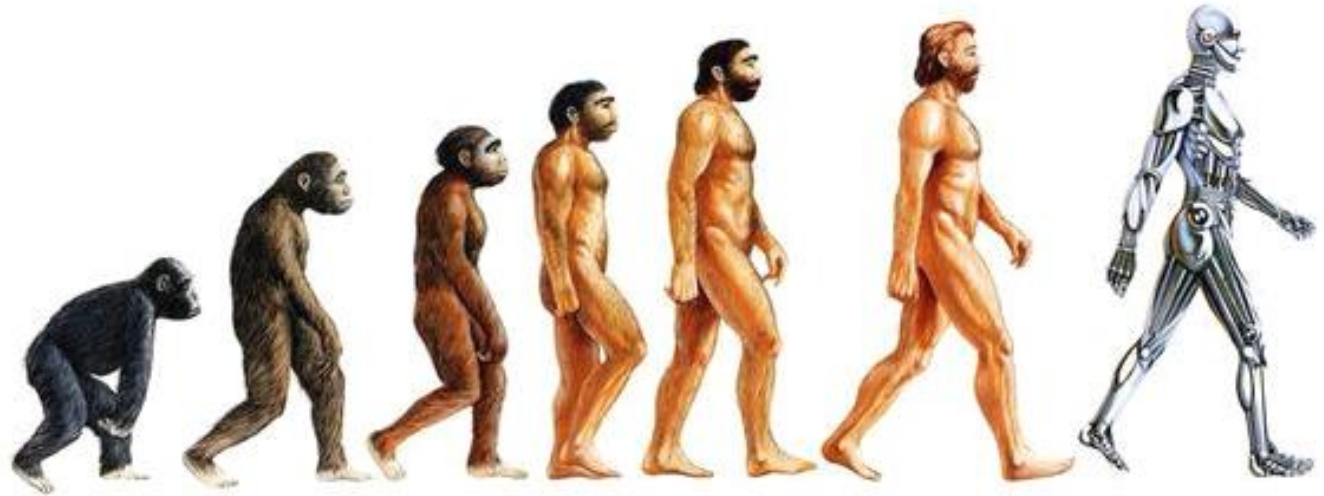
Geoffrey Hinton, a professor and former Google engineering fellow, is known as “godfather of artificial intelligence” and pioneer of artificial neural networks and deep learning techniques, such as back propagation — the algorithm that allows computers to learn.



From **Humanism** to **Posthumanism**

Humanism: separation, mastery,
exceptionalism

Posthumanism: entanglement, relationality,
distributed agency



Humanism defines the human as autonomous, rational, and separate from nature, technology, and other species. It assumes a stable, exceptional subject at the centre of meaning and agency.

Posthumanism challenges this by emphasising entanglement, hybridity, and distributed cognition. Rather than a bounded individual, the posthuman is an assemblage of biological, technical, ecological, and cultural forces. AI doesn't replace the human; it exposes how "the human" has always been relational, co-evolving with tools, codes, systems, and infrastructures.



WE HAVE ALWAYS BEEN CYBORGS

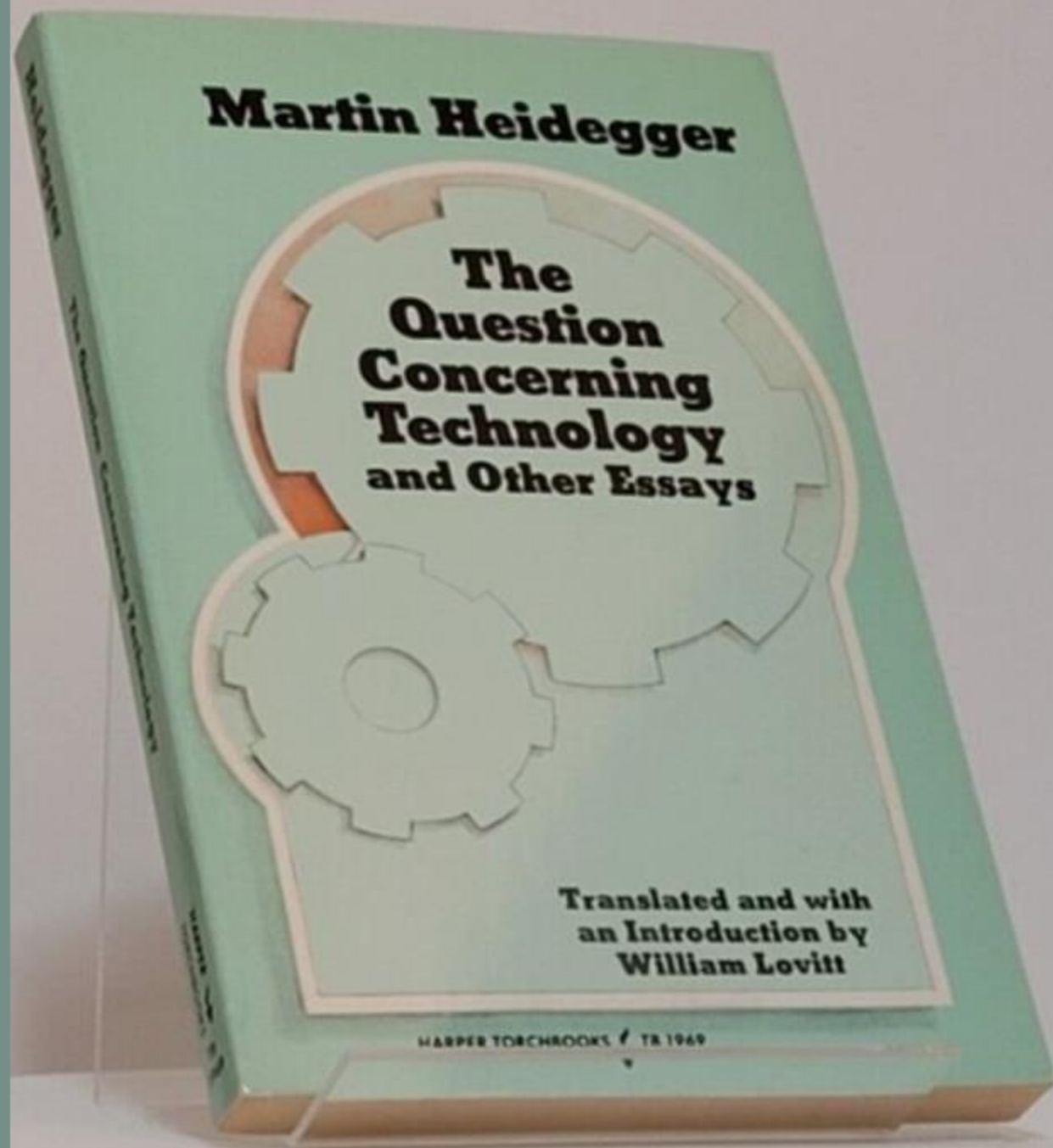
DIGITAL DATA, GENE
TECHNOLOGIES AND AN ETHICS
OF TRANSHUMANISM

STEFAN LORENZ SORGNER

"cyborg" is short for "cybernetic organism"

HEIDEGGER'S VIEW ON MODERN TECHNOLOGY

A CRITICAL
EXAMINATION IN
THE AGE OF AI





originary technicity

Bernard Stiegler's idea of "originary technicity" is the idea that the development of technology shapes human life and culture, and that humans are both the producers and users of technology.

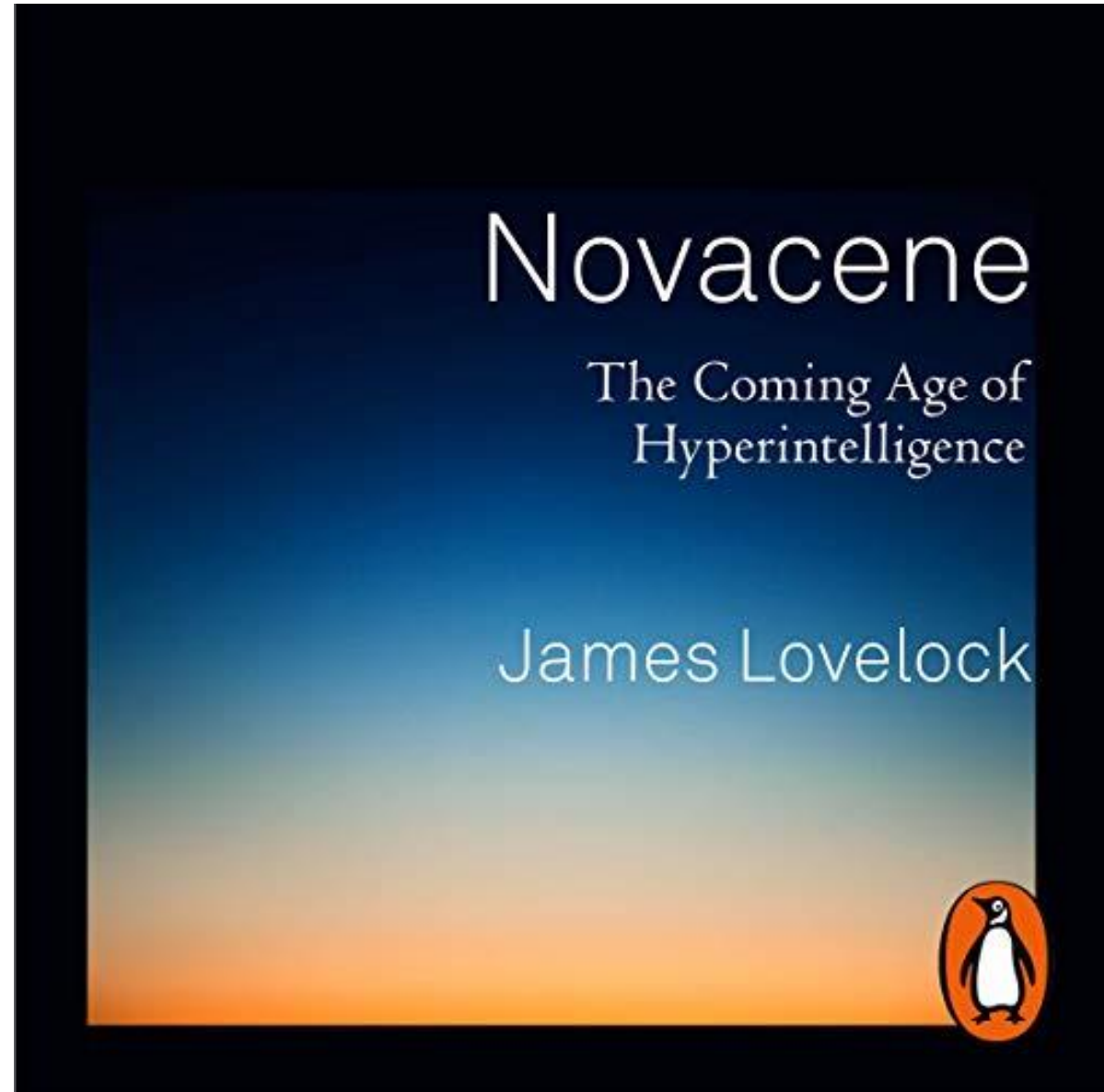
‘Humans have always been artificially intelligent’

Artificial Intelligence (AI) is a branch of computer science that focuses on creating systems capable of performing tasks that typically require human intelligence, such as learning, problem-solving, perception, and language understanding.

Novacene

the coming age of
hyperintelligence

from the
anthropocene to the
novacene



Humans will no longer
be centre stage.

The rise of AI means "humans will no longer be
centre stage" [Suzanne Livingston]

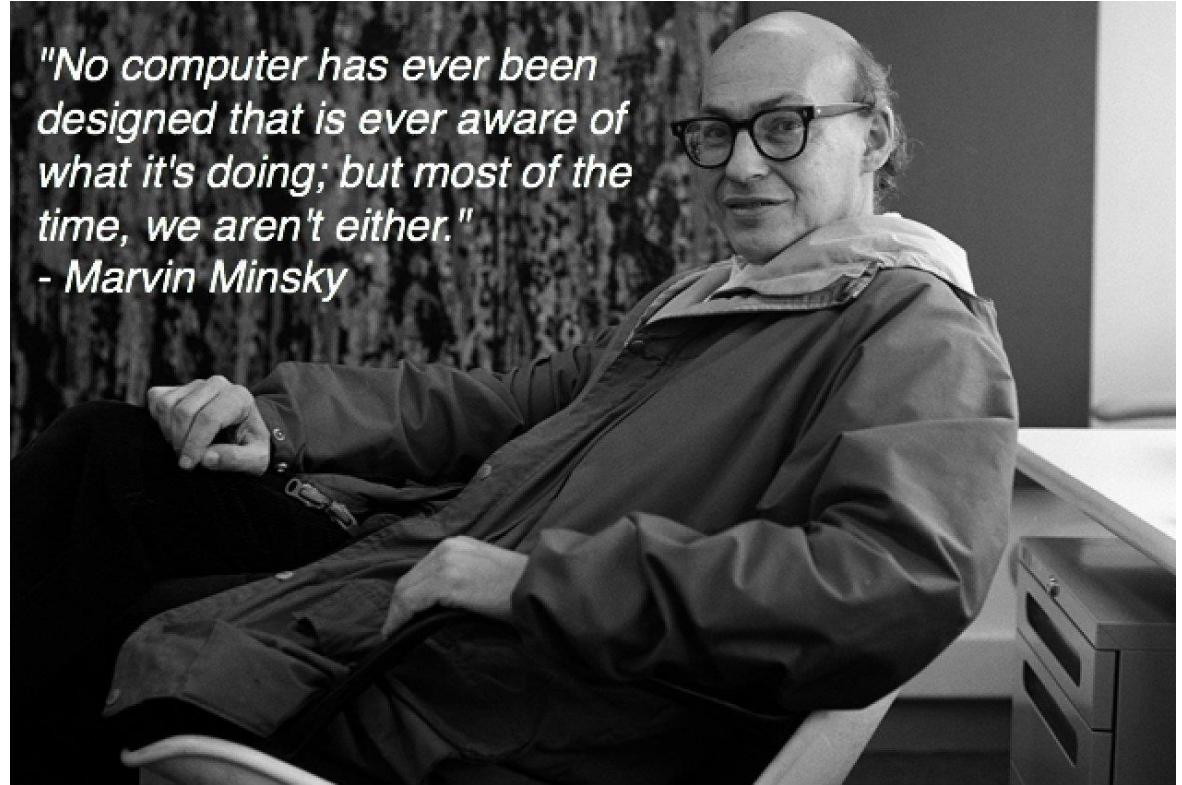


Society of Minds

Marvin Minsky

Marvin Minsky, the co-founder of MIT's Artificial Intelligence Lab, proposed that our minds are not a single super intelligence, but rather a collection of smaller intelligences that surface as needed and compete with each other to solve problems. He called this concept a *Society of Minds*.

"No computer has ever been designed that is ever aware of what it's doing; but most of the time, we aren't either."
- Marvin Minsky



Alan Turing is widely considered to be the father of artificial intelligence.

Alan Turing

Turing gave quite possibly the earliest public lecture (London, 1947) to mention computer intelligence, saying, “What we want is a machine that can learn from experience,” and that the “possibility of letting the machine alter its own instructions provides the mechanism for this.”

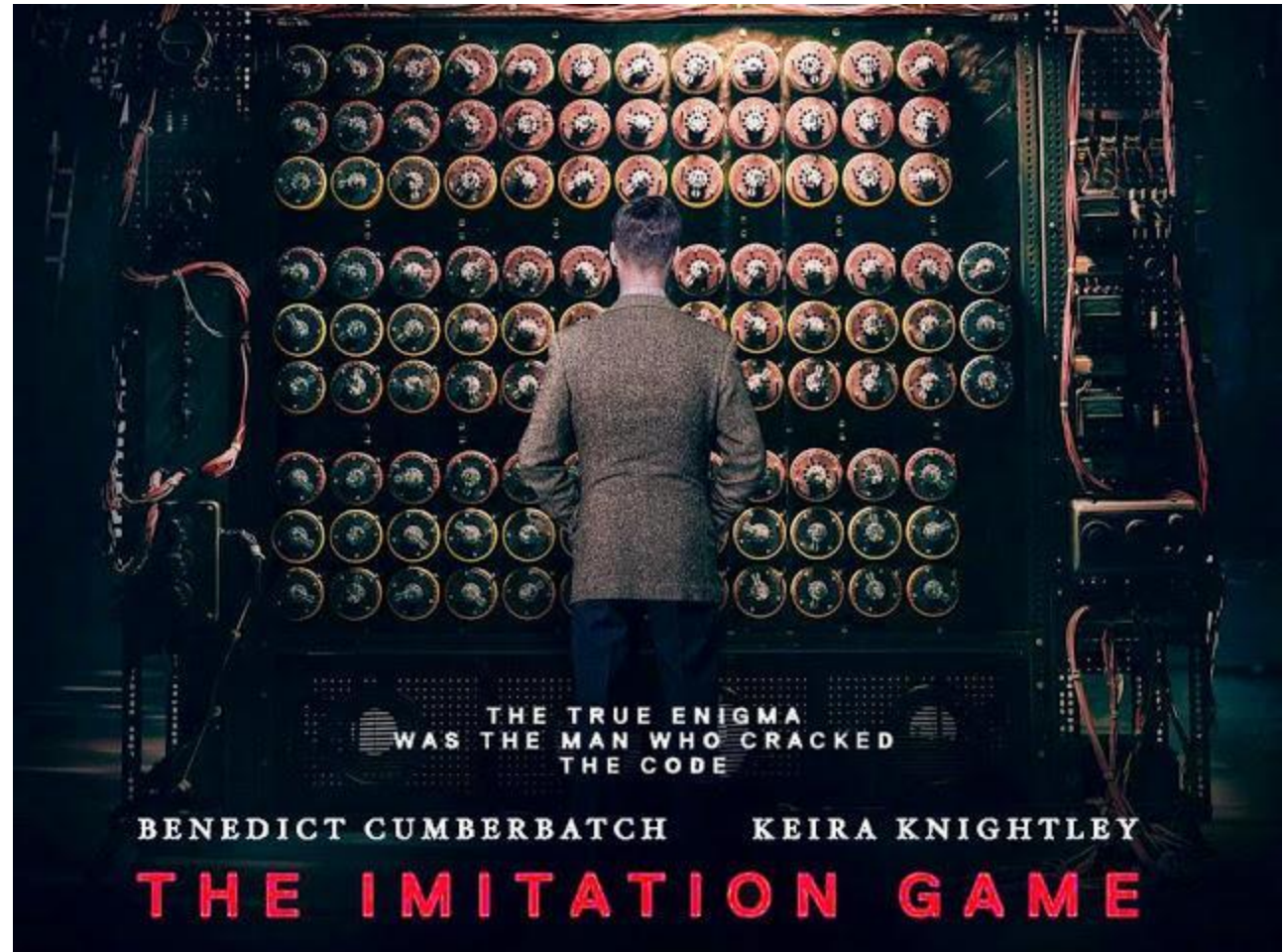


The Imitation Game

The Turing Test

The Turing test, originally called the **imitation game** by Alan Turing in 1950, is a test of a machine's ability to exhibit intelligent behaviour equivalent to, or indistinguishable from, that of a human.

Today, more than 70 years after Turing's proposal, no AI has managed to successfully pass the test by fulfilling the specific conditions he outlined. Nonetheless, as some headlines reflect, a few systems have come quite close



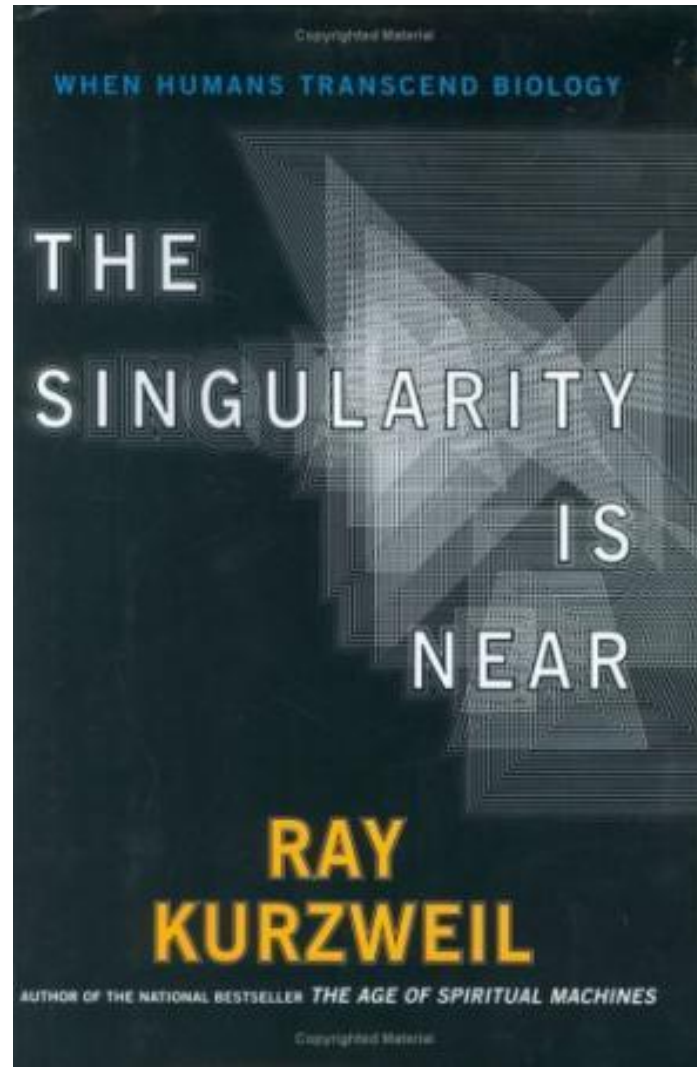
The Singularity

...technological progress is accelerating exponentially and that we will reach a point where the pace of change becomes so rapid that human society will be irreversibly transformed.

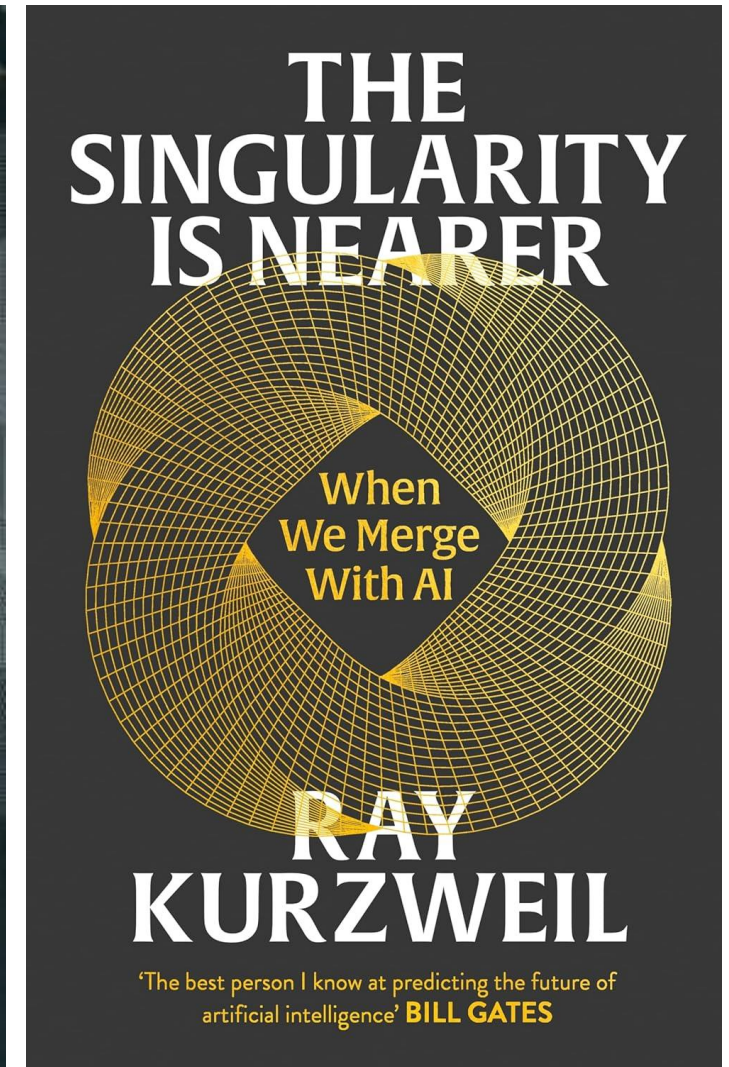
AGI

Artificial General Intelligence

...Artificial General Intelligence (AGI) aims to create highly autonomous systems with human-level cognitive abilities, capable of performing a wide range of tasks and learning across various domains.



2005



2024

Credit: Bloomberg Originals
Simulation of neurons



Bloomberg

SUBSCRIBE

Big Data and AI



Ada Lovelace and Algorithms

Ada Lovelace and the first algorithm

Augusta Ada King, Countess of Lovelace was an English mathematician and writer, chiefly known for her work on Charles Babbage's proposed mechanical general-purpose computer, the Analytical Engine.

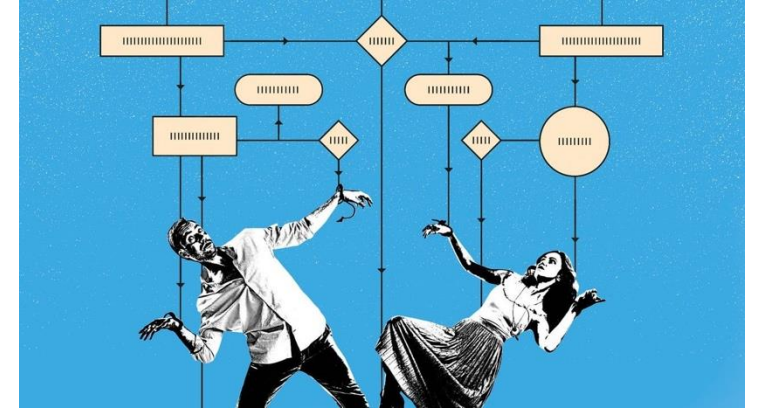
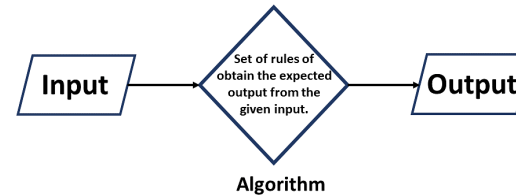
In 1843, Ada Lovelace translates 'Sketch of the Analytical Engine', invented by Charles Babbage. In the notes to the translation, she develops what is considered the first algorithm to make Babbage's engine compute a full Bernoulli sequence - effectively making her the first computer programmer.

What is a Bernoulli sequence?

The Bernoulli process is a finite or infinite sequence of binary random variables - either 0 or 1.



Algorithms and the Making of our Digital Selves



An algorithm is a set of commands that must be followed for a computer to perform calculations or other problem-solving operations. According to its formal definition, an algorithm is a finite set of instructions carried out in a specific order to perform a particular task.

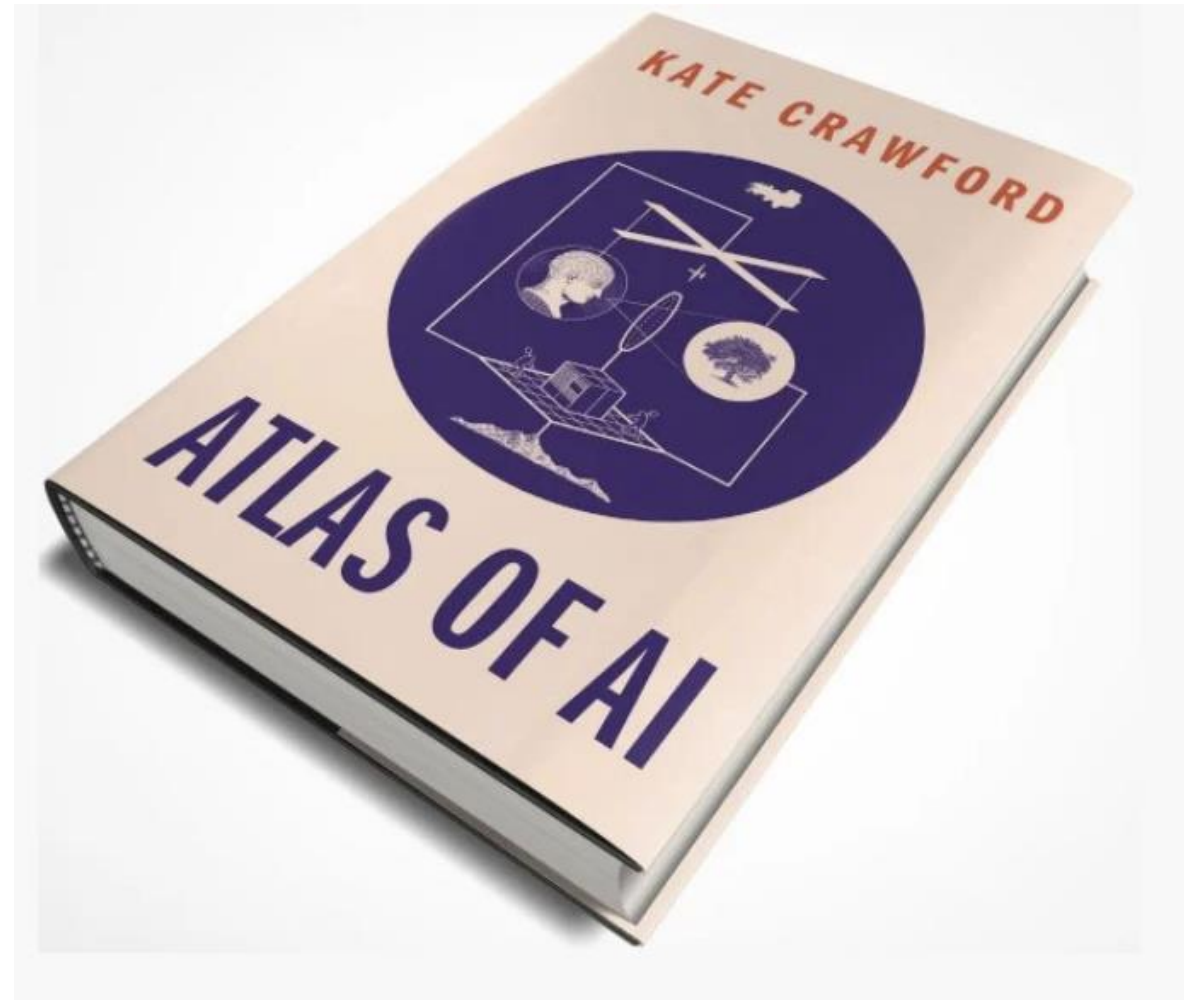
What identity means in an algorithmic age: how it works, how our lives are controlled by it, and how we can resist it. Algorithms are everywhere, organizing the near limitless data that exists in our world. Derived from our every search, like, click, and purchase, algorithms determine the news we get, the ads we see, the information accessible to us and even who our friends are. These complex configurations not only form knowledge and social relationships in the digital and physical world, but also determine who we are and who we can be, both on and offline. **Algorithms create and recreate us, using our data to assign and reassign our gender, race, sexuality, and citizenship status.** They can recognize us as celebrities or mark us as terrorists. In this era of ubiquitous surveillance, contemporary data collection entails more than gathering information about us. Entities like Google, Facebook, and the NSA also decide what that information means, constructing our worlds and the identities we inhabit in the process. We have little control over who we algorithmically are. Our identities are made useful not for us—but for someone else.

Kate Crawford
The Material Politics of AI

(AI is not artificial; it is extractive)

- Land • Labour • Data • Infrastructure
 - AI as political ecology

Kate Crawford argues that AI is not artificial at all—it is built from planetary resources, labour, and power structures. AI systems depend on minerals extracted from the earth, global assembly lines, low-paid data labelling work, and enormous energy-hungry data centres. Instead of seeing AI as a neutral computational tool, Crawford frames it as an industry shaped by geopolitics, inequality, and ecological impact. Understanding AI means tracing the material, environmental, and human costs embedded within every “intelligent” system.



machine learning and deep learning

Artificial Intelligence

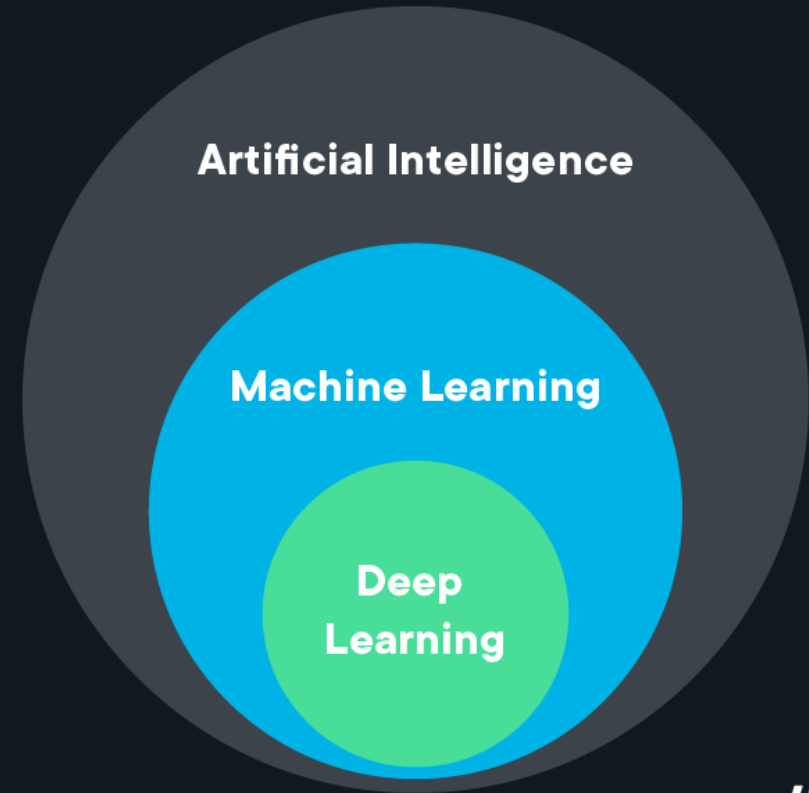
A science devoted to making machines think and act like humans.

Machine Learning

Focuses on enabling computers to perform tasks without explicit programming.

Deep Learning

A subset of machine learning based on artificial neural networks.



LLMs, Multimodality & AI

Natural Language Processing

Large Language Models

Large Language Models (LLMs) have evolved into fully multimodal systems that can generate text, images, audio, video, and 3D assets from the same model. Tools like GPT-5.1, Claude 3.7, Gemini Ultra, Llama 3, Mistral, and Sora collapse boundaries between media: text becomes video; video becomes 3D scenes; audio becomes imagery.

Rather than “thinking,” these systems excel at prediction, simulation, and synthesis—reshaping creative practice, communication, and cultural production at scale.

The shift is not intelligence, but **total synthetic media integration**.

Create beautiful artwork using the power of AI.

Enter a prompt, pick an art style and watch WOMBO Dream turn your idea into an AI-powered painting in seconds.

Water Sandcastle

Cactus

Pigeon

Coffee

Picasso

Elements of AI Image Generator Text Prompt

The Batmobile stuck in Los Angeles traffic impressionist painting wide shot

Generate

Subject

A noun that functions as the main subject of the rendered image

Description

Descriptions answer questions about the noun and its surrounding scenery. It answers questions such as what is the subject doing, where and when, what does the subject look like, what's happening around the subject, etc.

Style / Aesthetic

Stylistic or aesthetic parts of a text prompt dictate the composition in its entirety. These can be art styles, such as impressionist, cyberpunk, art deco. Time periods, such as 80's or medieval. These elements also control the framing of the image, such as wide shot, long shot, close up.

(Artificial) Neural Networks

A neural network is a method in artificial intelligence that teaches computers to process data in a way that is inspired by the human brain. It is a type of machine learning process, called deep learning, that uses interconnected nodes or neurons in a layered structure that resembles the human brain.

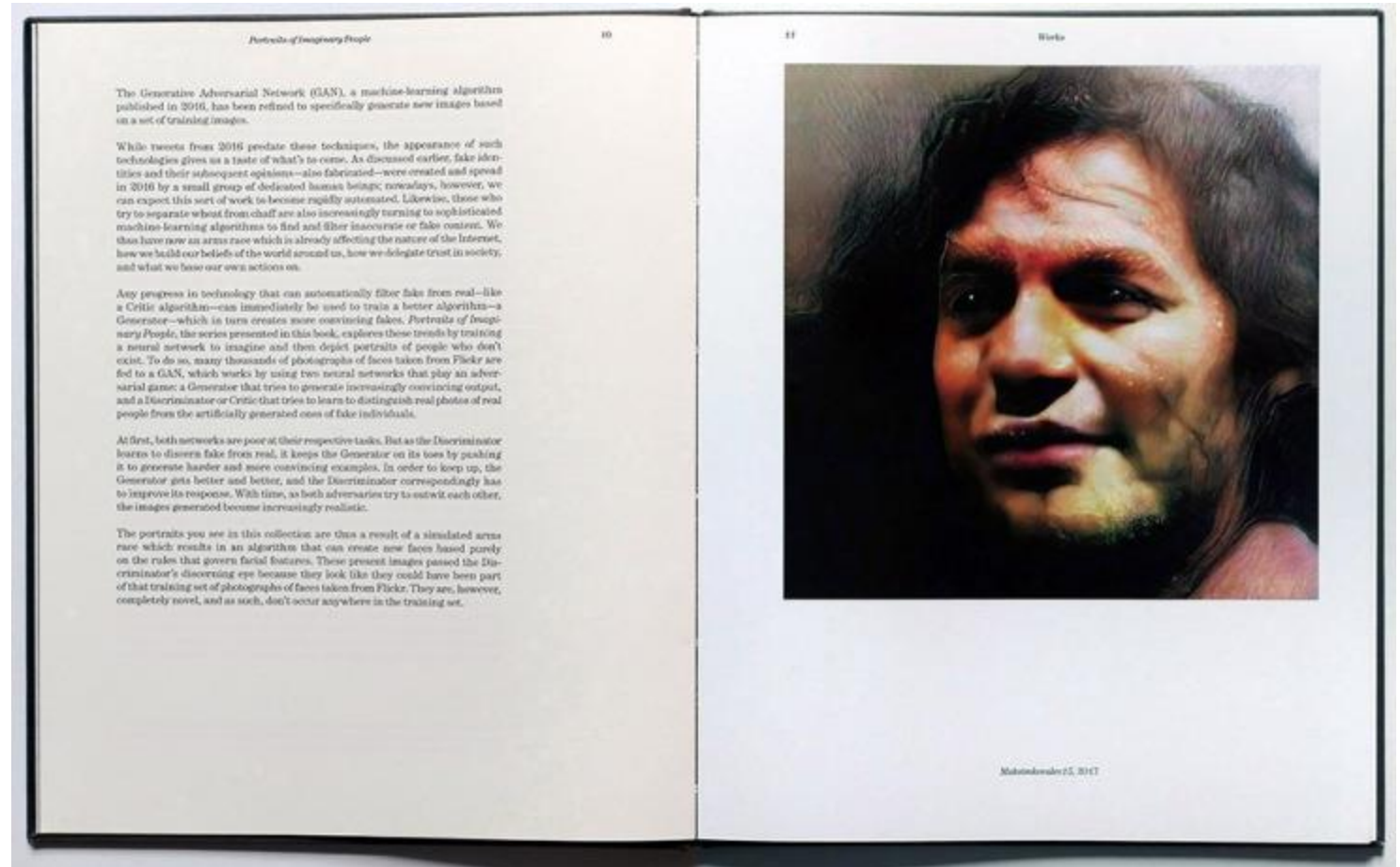


GANs

Generative Adversarial Networks

Generative Adversarial Networks (GANs) have revolutionized the fields of art and design, providing innovative solutions for creating realistic images, generating new art forms, and transforming the way we approach creativity.

Generative Adversarial Networks (GANs) are a type of machine learning model that consists of two neural networks: a **generator** and a **discriminator**. The generator network creates new data instances, such as images, while the discriminator network evaluates the authenticity of the generated data. Through an adversarial training process, GANs learn to generate increasingly realistic and high-quality content.



Mike Tyka – Portraits of Imaginary People

CNNs

Convolutional Neural Networks

A Convolutional Neural Network, also known as CNN or ConvNet, is a class of neural networks that specialises in processing data that has a grid-like topology, such as an image. A digital image is a binary representation of visual data.

Content: Neckarfront in Tübingen, Germany



Style: The Shipwreck of the Minotaur, JMW Turner



Style: The Starry Night, Vincent van Gogh

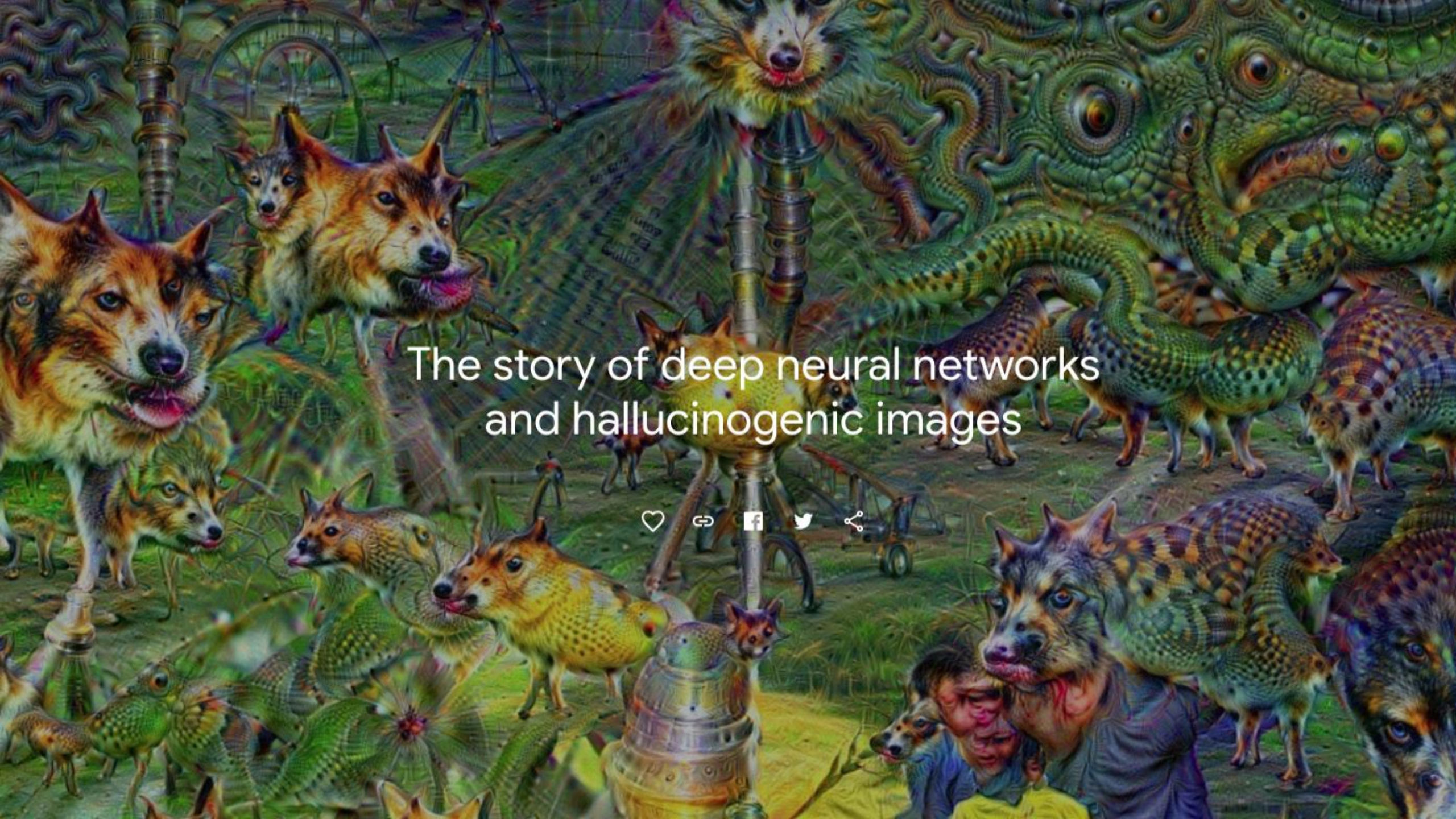


Style: Der Schrei, Edvard Munch



HHHHEHHE





The story of deep neural networks and hallucinogenic images



DeepDream

algorithmic pareidolia

DeepDream is a computer vision program created by Google engineer Alexander Mordvintsev that uses a **convolutional neural network** to find and enhance patterns in images via **algorithmic pareidolia**, thus creating a dream-like appearance reminiscent of a psychedelic experience in the deliberately overprocessed images.



(apophenia)



pareidolia

The **DeepDream** algorithm shows us quite plainly **how perception works**. You can only see what you were trained to see. In the case of Google's AI a lot of dogs obviously.

From Pixels to Paintings : The Rise of Midjourney AI Art



/blend

image1 Samurai.png

image2 Flowers.png

+4 more



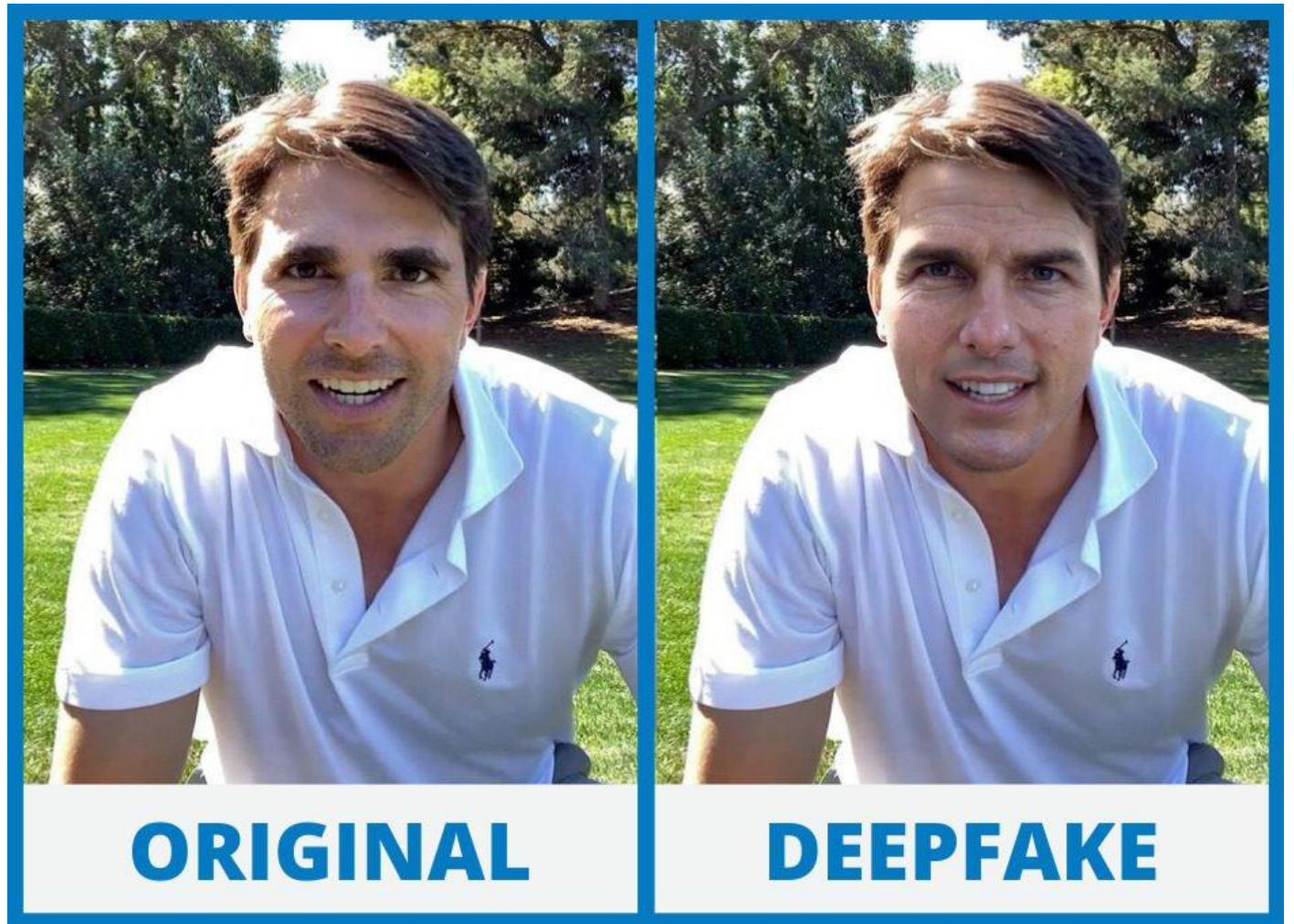


Deep Fake

Seeing and Not Believing

A deep fake refers to a type of synthetic media, typically audio or video, that is created using deep learning techniques, especially **generative adversarial networks** (GANs). Deep fakes involve manipulating or superimposing existing images or videos onto other content, often resulting in realistic-looking but fabricated footage.

This technology can be used for various purposes, including creating realistic yet fake portrayals of individuals or altering the context of original content. Deep fakes raise concerns about the potential for misinformation and the need for advanced detection methods.



Deep Fakes

Seeing and Not Believing

Deep fakes describe videos that employ artificial intelligence (AI) technology and represent false and misleading media depicting events that never occurred. By compounding the phenomenon of **fake news**, **deep fakes** underline how journalism, news and information in the digital era can be compromised.

Despite being a relatively recent phenomenon, **deep fakes** join traditions in media representations that include hoaxes and fabrications designed as deliberate ploys to mislead and distort legitimate news and information services. Since July 2019, the specific term “**deep fake**” has gained currency and in conjunction with **fake news** constitutes part of the broader problem arising from “**information disorder**”. Symptomatic of what has been referred to as a **post-facts era**, **information disorder** describes the effects of notions like the relativity of truth and the threats this represents to an informed citizenry and functioning polity (Anderson, 2018; Qayyum et al., 2019; Westerlund, 2019), Zannettou et al. (2019).



FakeCatcher

the world's first real-time deepfake detector

Pioneered by Intel, the FakeCatcher deepfake detector analyzes "blood flow" in video pixels to determine a video's authenticity in milliseconds.

What is a deepfake?

Deepfakes are synthetic videos, images, or audio clips where the actor or the action of the actor is not real.

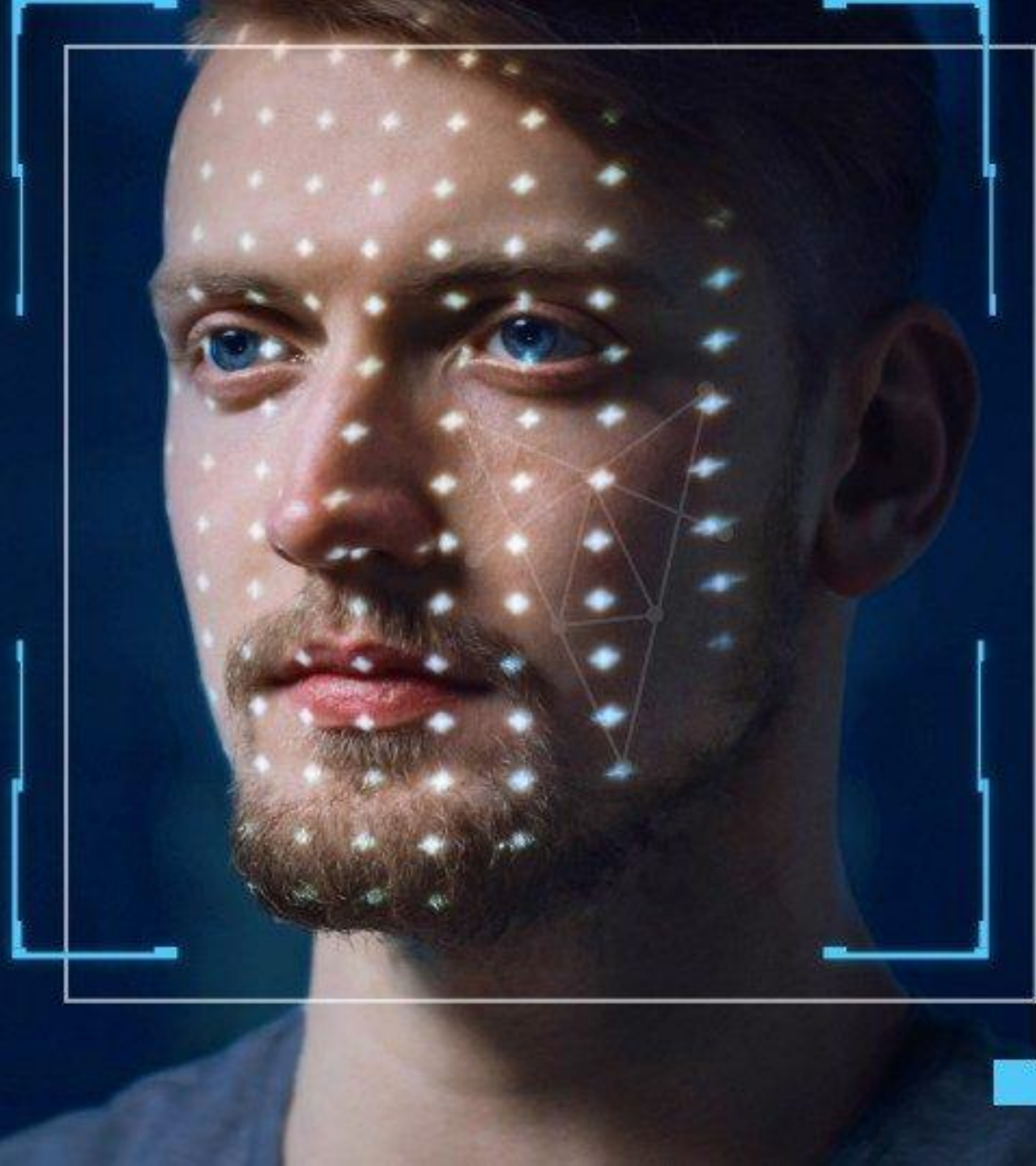
FakeCatcher can run up to

72 concurrent

real-time deepfake
detection streams on
3rd Gen Intel® Xeon®
Scalable processors

96%

FakeCatcher's
accuracy for
deepfake detection



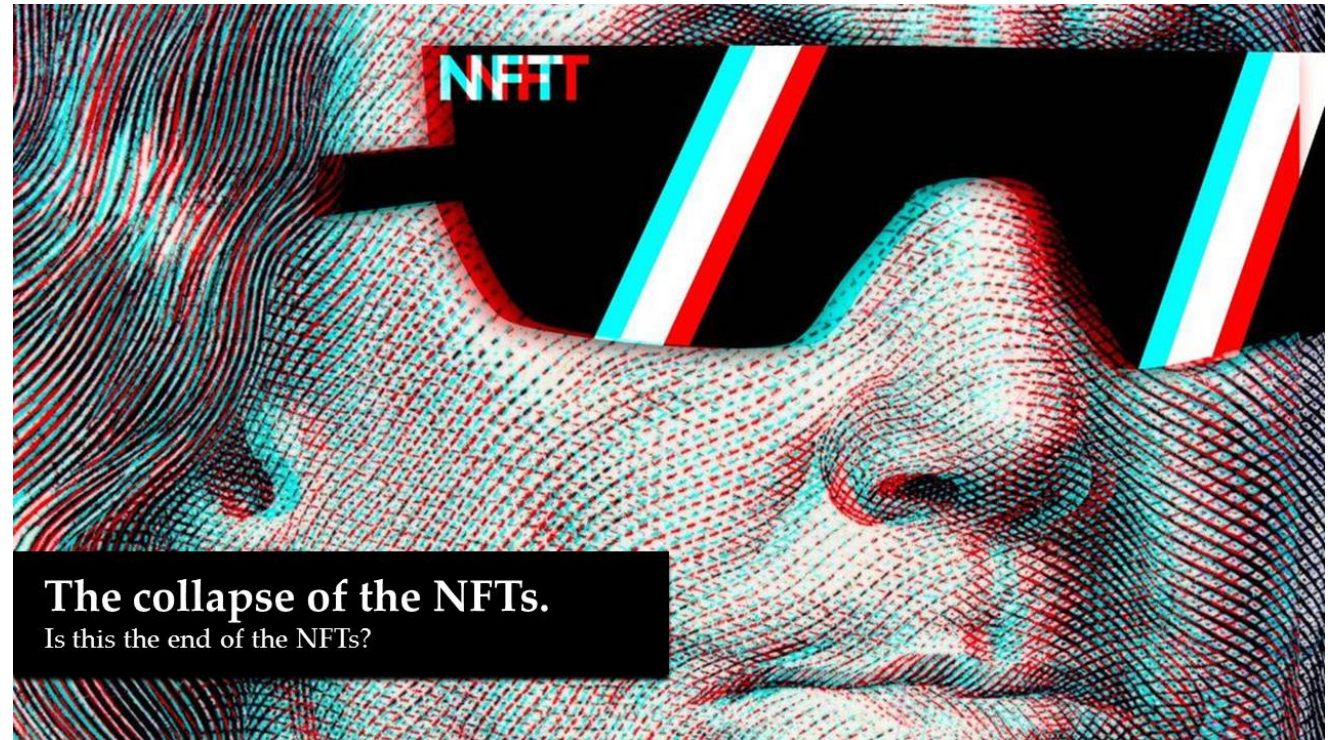
1:4

IS II USM

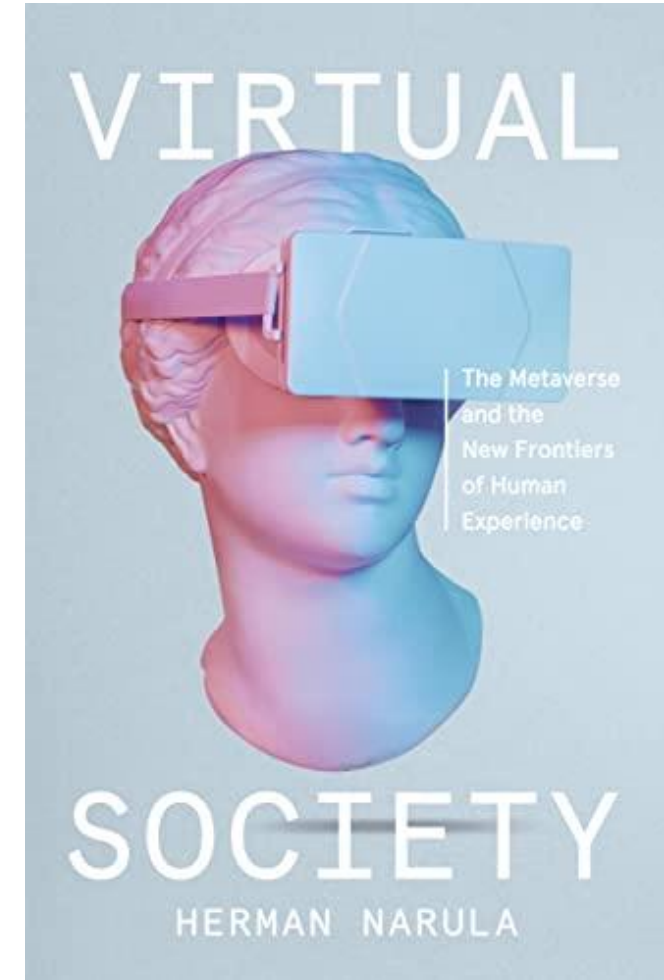
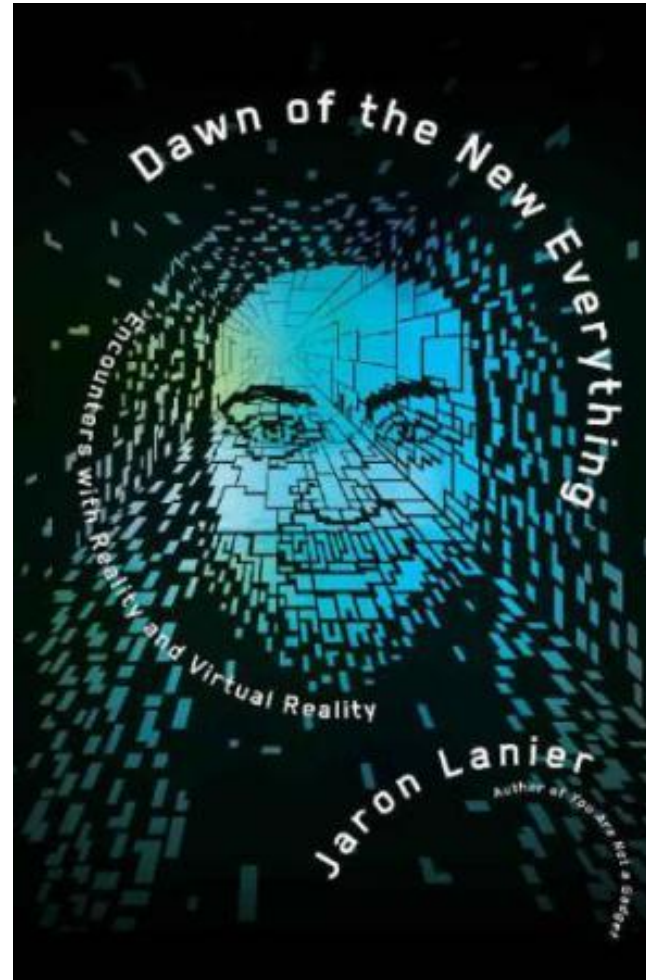
NFTs

non-fungible tokens

Non-fungible token (NFT) art refers to digital assets stored on a blockchain that represent content or even physical items. Art mediums that NFTs can represent include digital drawings, paintings, music, film, poetry, or books. NFT art allows artists to sell or rent their artwork beyond the physical world.



Virtual Reality Immersion



Metaverse

The New Reality ?



Refik Anadol

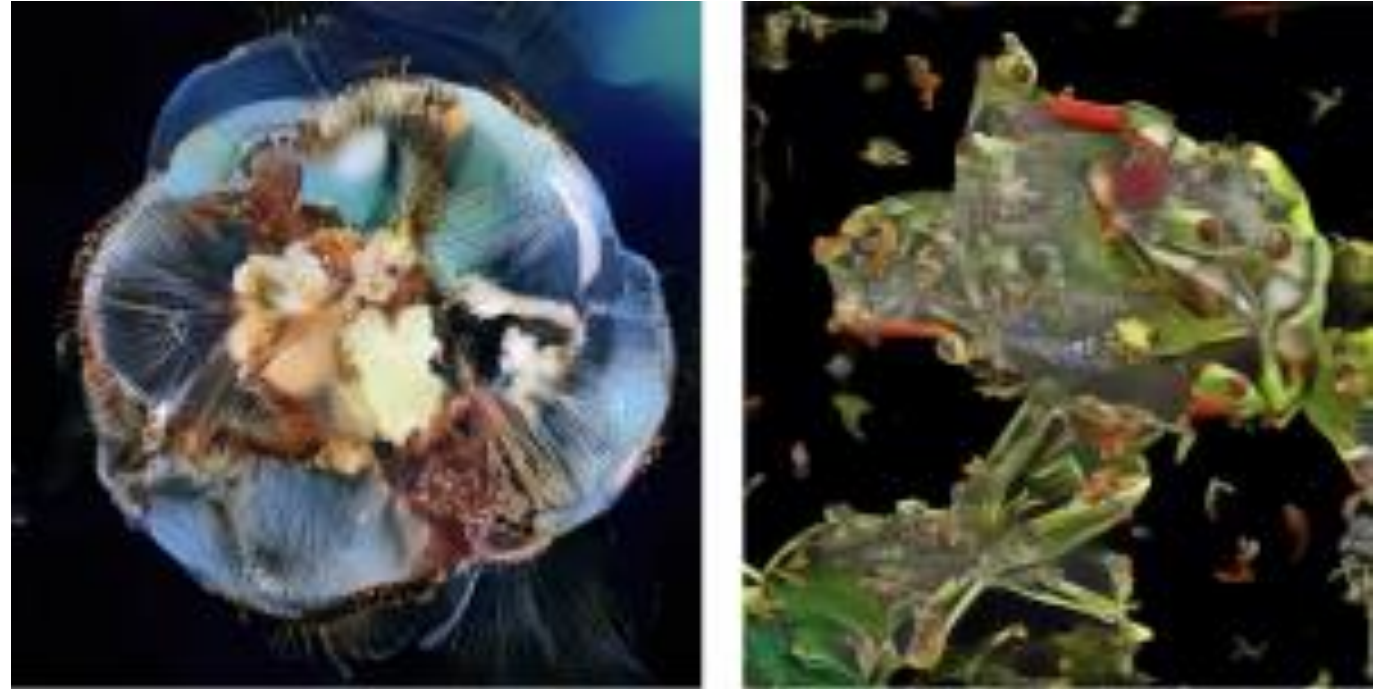
Artificial intelligence is a mirror
for humanity. It's all about who
we are as humans.



TED

Sofia Crespo

Neural Zoo (2018-20) is an acclaimed series by Crespo, which she describes as “speculative nature”. Upon training it with datasets of images from the natural world, the GAN generated visuals of hybrid creatures, neither real nor unreal: Crespo’s surreal ecosystem is populated with frogs resembling flowers, iridescent jellyfishes with visible internal organs and other fantastical beings. “What a neural network does is extract the textures from a dataset, and create a new image from that,” explains Crespo.



Works from *Neural Zoo* (2018-20) by Sofia Crespo

TED

Mario Klingemann

Mario Klingemann is a German artist best known for his work involving neural networks, code, and algorithms. Klingemann was a Google Arts and Culture resident from 2016 to 2018, and he is considered as a pioneer in the use of computer learning in the arts.



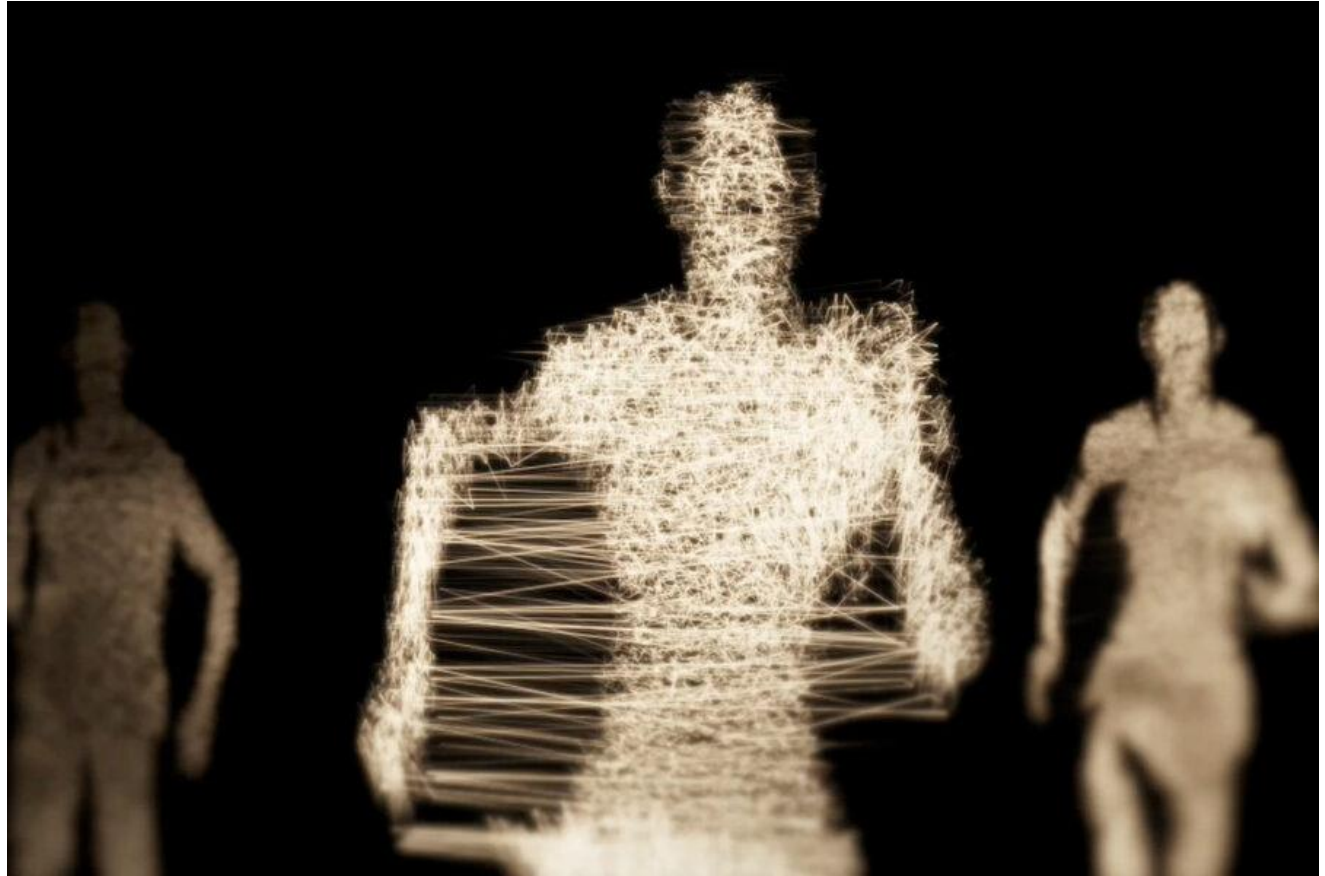
Anna Ridler

A system of knowledge may seem like an usual place to find artistic inspiration. For Anna Ridler, the process of knowing is key to her exploration of machine learning—and her ability to create new and unusual creative narratives.



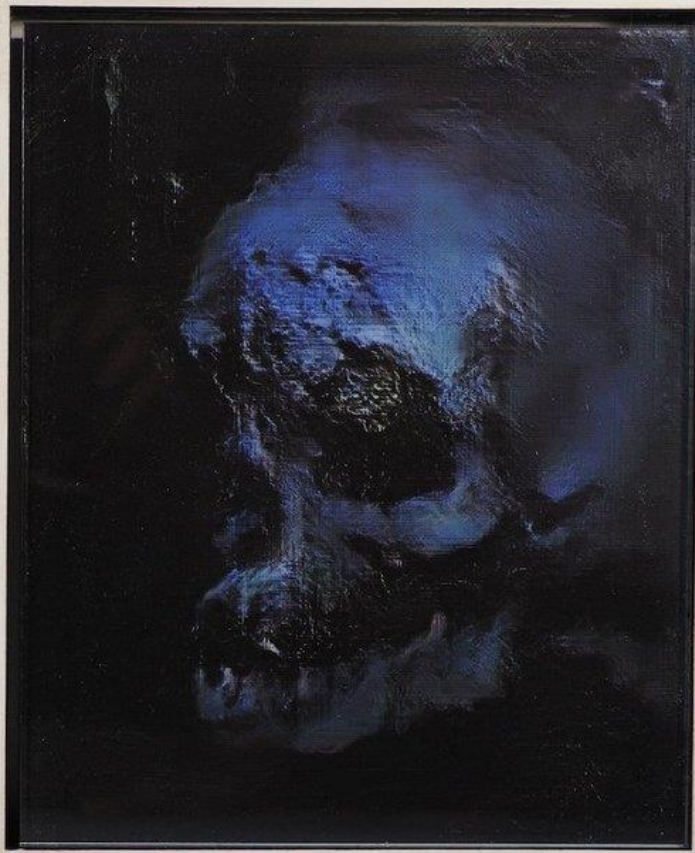
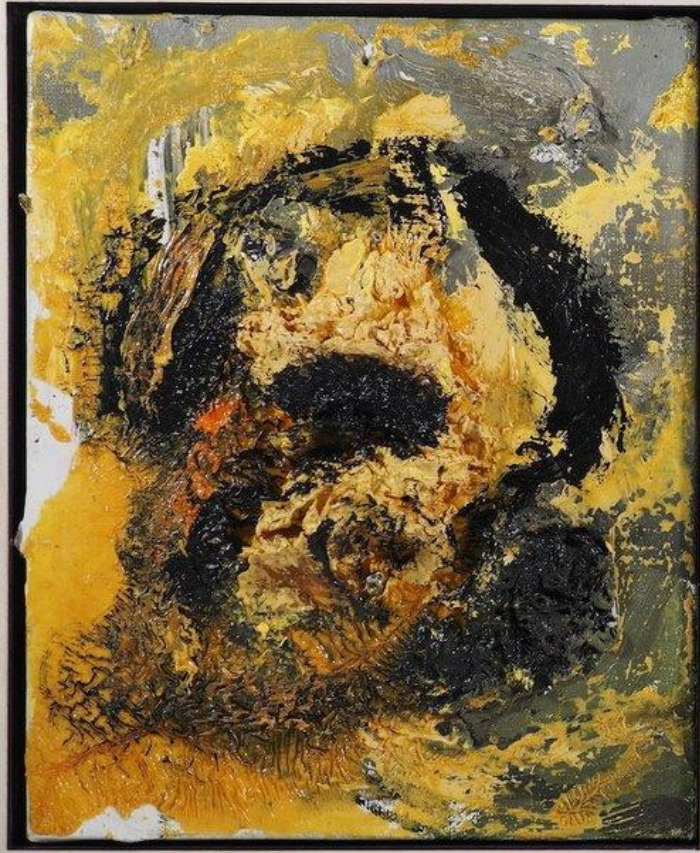
Memo Akten

Memo Akten (b. 1975) is an artist and engineer born in Istanbul (TR), currently based in London (UK). He develops systems that abstract behaviour to create unfamiliar familiarities and encourage new perceptions on our relationship to science, nature, technology and culture.



Robbie Barrat

Robbie Barrat is a young AI prodigy whose projects push the boundaries of neural networks and the traditional art world.





The skulls are for me landscapes with two eyes,

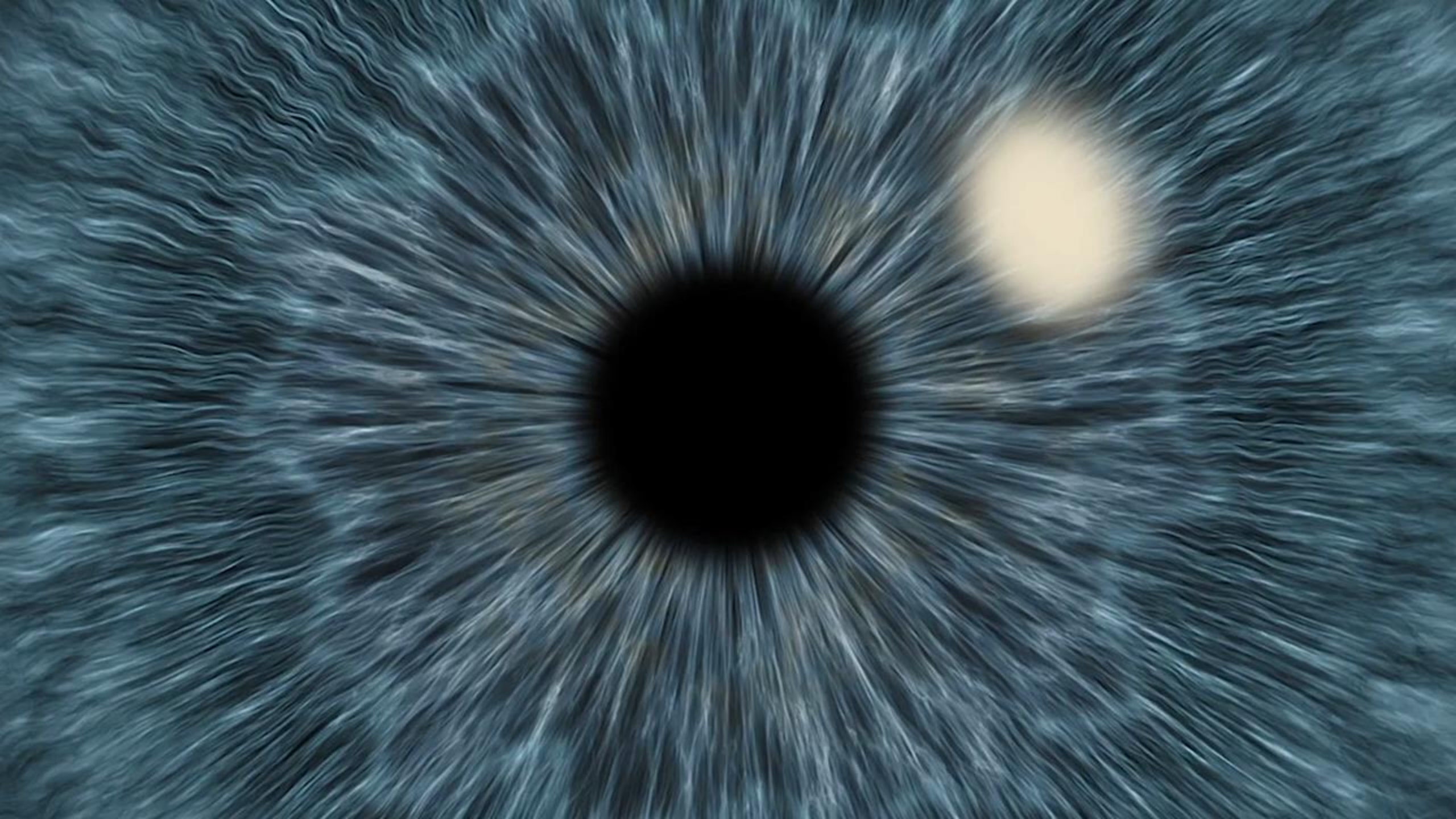
cyborgs and robots



Sougwen Chung

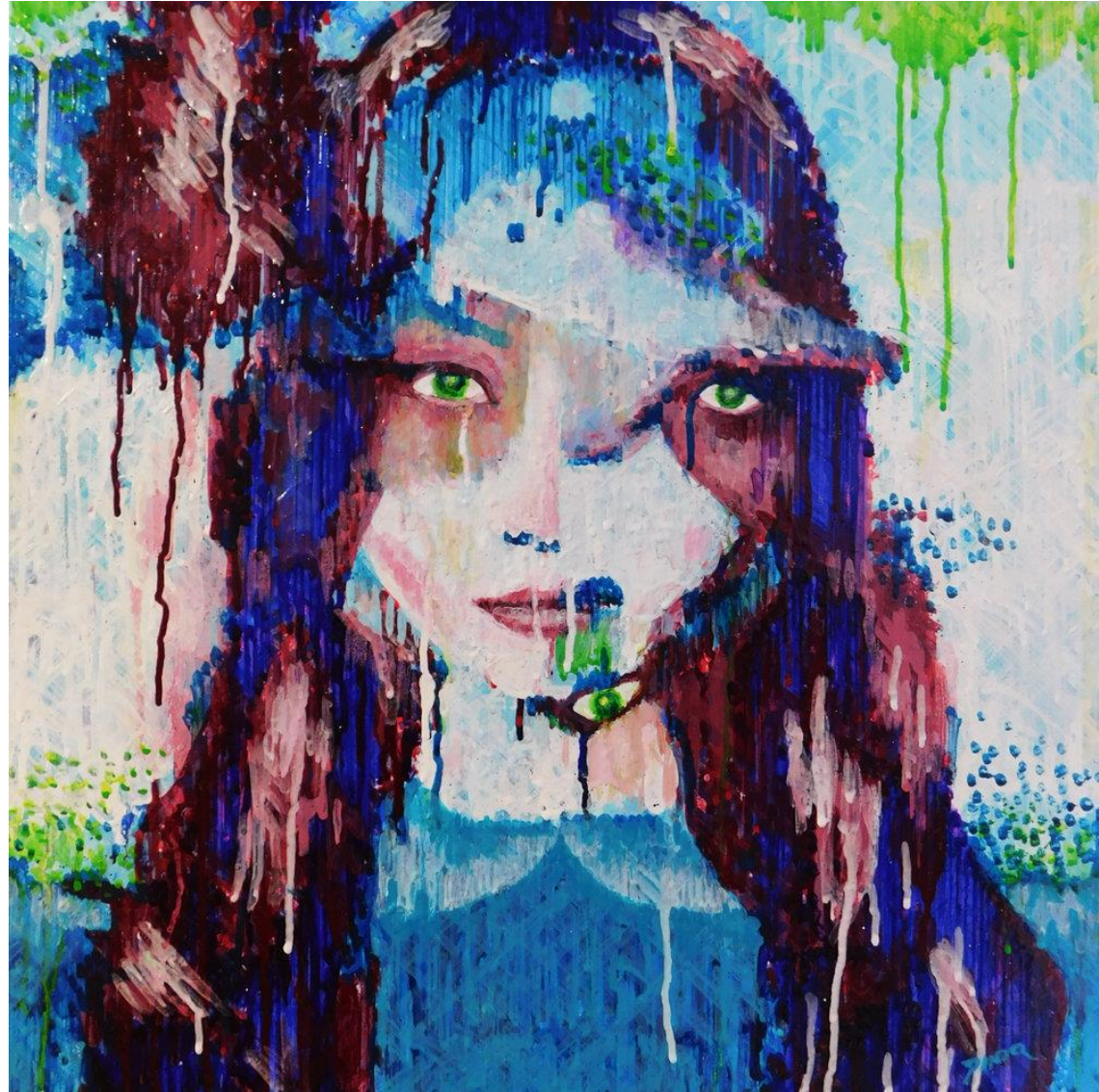
Sougwen Chung is a Canadian-born, Chinese-raised artist residing in London. Chung's artistic practices are based on performance, drawing, still image, sculpture, and installation. Chung's work investigates mark-made-by-machine and mark-made-by-hand for understanding the encounter of computers and humans





Pindar Van Arman

Pindar deconstructs his own
artistic process in order to
teach it to painting robots as
a way of better
understanding himself





Teaching a Robot to Paint Like a Child

The Psychoanalysis of Artificial Intelligence

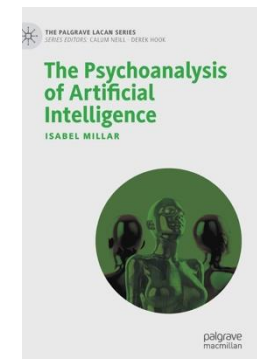
does it (AI) enjoy?

ex machina
and sexbots

Lacan's concept of the
Lathouse and **Alethosphere**



Does It enjoy? Taking the problem of artificial intelligence as a problem that has been in a way always-already inherent to psychoanalytic inquiry Isabel Millar accomplishes a most powerful and productive shift of perspective on both psychoanalysis and AI.



The Psychoanalysis of Artificial Intelligence

does it (AI) enjoy?

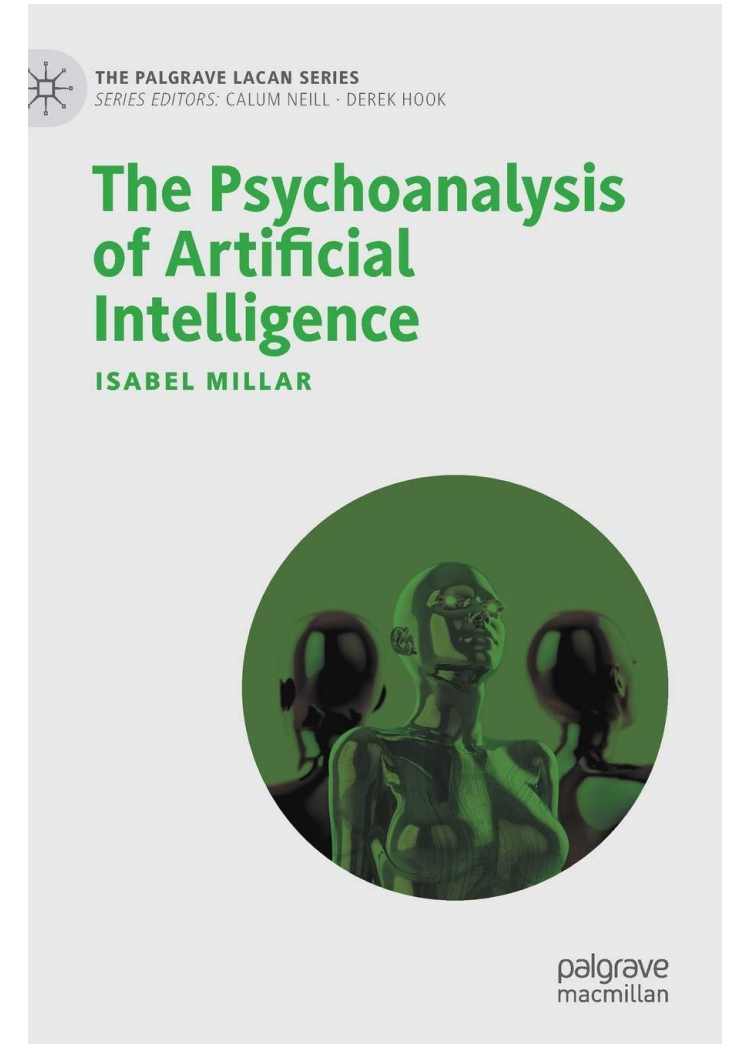
Lacan's concept of the **Lathouse**

Enjoyment - data – commodity,
Tech as desire-shaping apparatus

Lacan's concept of **Lathouse** can be thought of as referring to artificial objects or gadgets that extract and codify human enjoyment (*jouissance*), transforming it into a form that can be manipulated within the symbolic order. These devices embody the intersection of science and capitalism, influencing human desire and the social bond.

Isabel Millar draws on Lacan to describe the *lathouse*—technological objects that extract, formalise, and repackage human enjoyment (*jouissance*). **These devices transform desire into data:** quantified, optimised, and fed back through platforms, algorithms, and AI systems. The lathouse embodies the fusion of science and capitalism, where enjoyment becomes a programmable component of the social order. **In this view, AI is less a thinking agent than a machinery for capturing, organising, and commodifying human desire.**

These concepts highlight Lacan's exploration of how technological objects and scientific discourse shape human experience, desire, and the construction of truth in contemporary society.



The Psychoanalysis of Artificial Intelligence

does it (AI) enjoy?

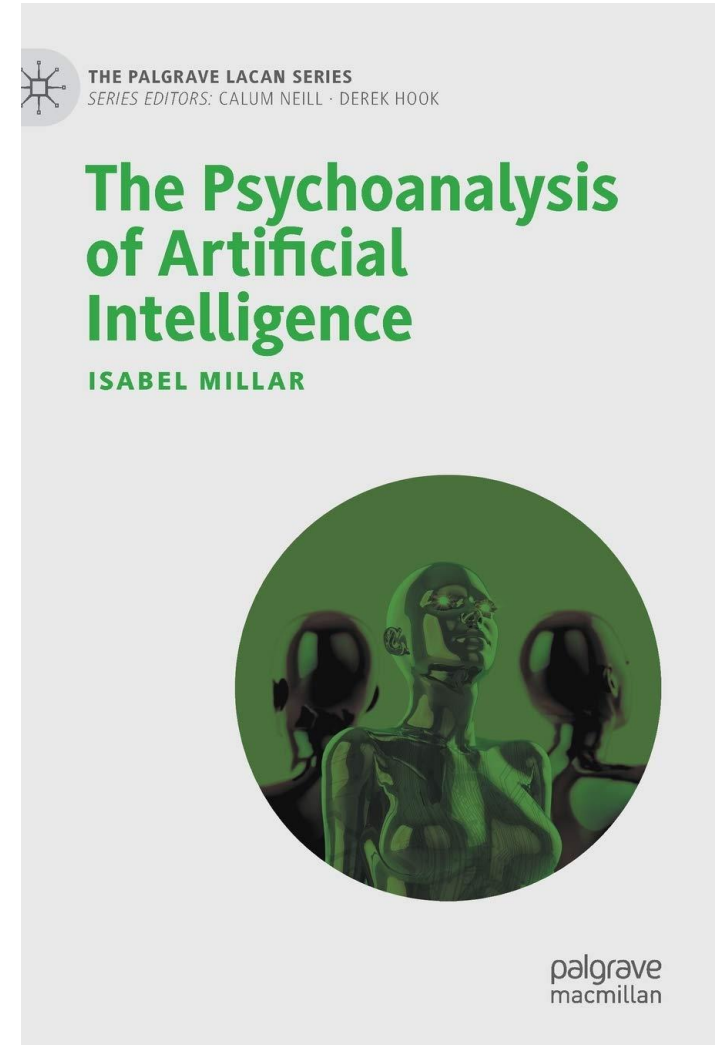
Lacan's concept of the **Alethosphere**

Truth as computation
Algorithmic symbolic order

The **Alethosphere** denotes a realm where truth is formalised and produced. In Lacanian terms, it represents the domain created by the proliferation of **lathouses**—technological artefacts that mediate and structure our experiences of truth and reality. This sphere (think 'internet') reflects the pervasive influence of scientific discourse and technological advancements on our understanding of truth.

These concepts highlight Lacan's exploration of how technological objects and scientific discourse shape human experience, desire, and the construction of truth in contemporary society.

The **alethosphere** is the domain where truth is produced, circulated, and governed by technological systems. For Millar, AI and algorithmic infrastructures create a new symbolic order in which meaning, identity, and visibility are shaped by computational logics. Search engines, recommendation systems, and LLMs collectively form an environment where truth is automated, scaled, and personalised. The **alethosphere** is not simply informational—it is affective and political, reorganising how subjects relate to knowledge, desire, and one another.

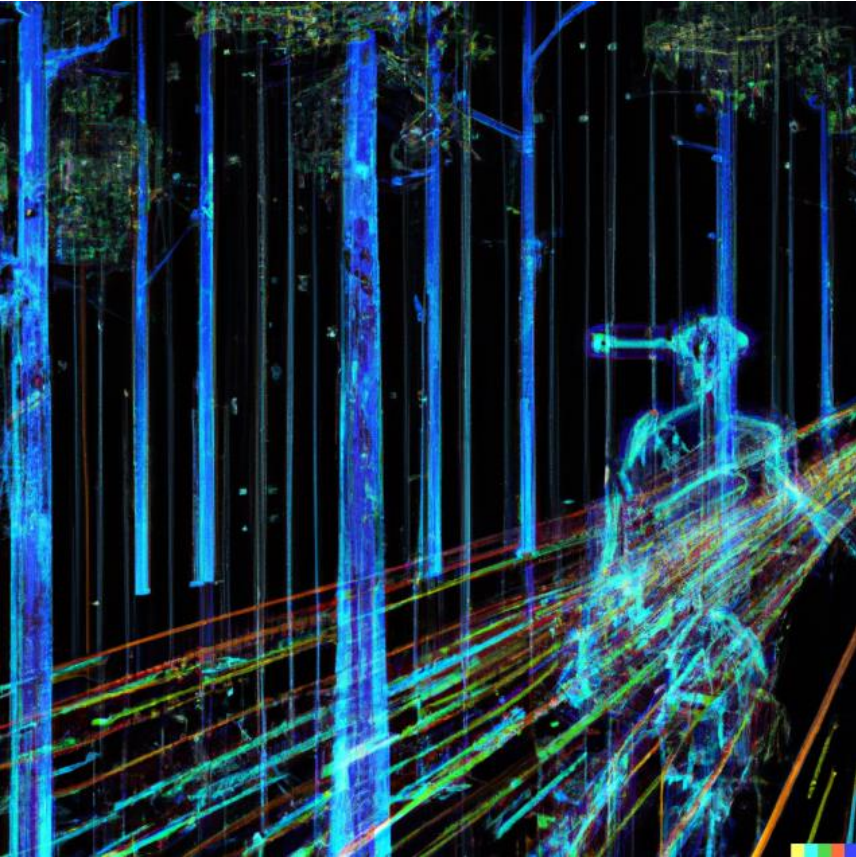


The Posthuman Subject: Distributed, Relational, Ecological



- **The posthuman subject** is not an individual bounded by skin or identity but a distributed assemblage of biological, technological, cultural, and ecological forces.
- AI makes this visible by decentralising cognition, automating perception, and embedding algorithmic decision-making into everyday life.
- Posthumanism reframes intelligence as relational, not exceptional; embodied, not abstract; networked, not isolated.
- The human is no longer the unquestioned centre of thought, creativity, or agency. Instead, we inhabit complex interdependencies across planetary, computational, and biological systems.
- ...the task is to understand these relationships ethically and imaginatively.

Futures: Navigating AI Ecologies



- Rather than forecasting utopian or dystopian futures, the posthuman perspective asks how we navigate AI ecologies responsibly.
- This involves **ecological awareness** (Crawford), **ethical accountability** (Benjamin, Noble), **creative experimentation** (Crespo, Chung), and **theoretical reflection** (Haraway, Millar, Stiegler).
- The question is not whether AI will surpass humanity but how human and nonhuman intelligences will co-evolve.
- Future creative practices will increasingly involve hybrid agencies, synthetic perception, and distributed authorship.
- As artists, designers, and theorists, students are positioned to shape these futures critically—questioning who benefits, who is harmed, and what forms of life we wish to cultivate.

Question 6. The Politics of Desire: *How do contemporary creative practices reflect, critique, or disrupt the politics of desire in late capitalist or postcapitalist society, particularly in relation to image culture, affective economies, algorithmic and AI-driven systems, and the commodification of identity, labour, or attention?*

1. Posthuman Creativity & Distributed Agency

In what ways do artists working with AI challenge human exceptionalism and articulate posthuman forms of creativity and agency?

(Crespo, Van Arman, Anadol, Ridler, Chung)

2. Ecologies of Perception & Machine Vision

How are artists using AI to explore nonhuman modes of perception or alternative ecologies of vision?

(Crespo, Anadol, Paglen, Klingemann)

3. AI as Extractive Infrastructure

How does contemporary AI art make visible the material, environmental, or geopolitical infrastructures that underpin artificial intelligence systems?

(Paglen, Anadol, Dinkins, Forensic Architecture)