

Hacking Humanity: Digitalität und Anthropopraxis

DGfE-Kongress 2022, Symposium „Bildung des Menschen im
Anthropozän. Die Grenzen des Menschen neu erforschen.
Einsätze Pädagogischer Anthropologie“ (15.3.2022)

- 1) „Anthropopraxis“?
- 2) Digitalisierung als Erweiterung oder (ambivalente)
Engrenzung von Körper, Wissen und Subjekt?
- 3) Künstliche Intelligenz: Algorithmische
Rationalisierung oder utopisches „alien subject“?
- 4) Post-anthropische Suchbewegungen

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Sensors that Go Beyond Our Senses

Most cameras today can only take pictures that are visible to the human eye at wavelengths between 450 and 750 nanometers (nm). Sensors able to detect light wavelengths outside of that range are hard to come by, but their use can benefit a wide range of areas. For example, image sensors equipped for ultraviolet light perception can be used for diagnosing skin cancer by capturing pictures to showcase healthy cells and cancerous cells in different colors. Infrared image sensors can also be harnessed for more efficient quality control in agriculture and other industries. Somewhere in the future, we might even be able to have sensors that can see microbes not visible to the naked eye.

Not only are we developing image sensors, but we are also looking into other types of sensors that can register smells or tastes. Sensors that even go beyond human senses will soon become an integral part of our daily lives, and we are excited by the potential such sensors have to make the invisible visible and help people by going beyond what our own senses are capable of.

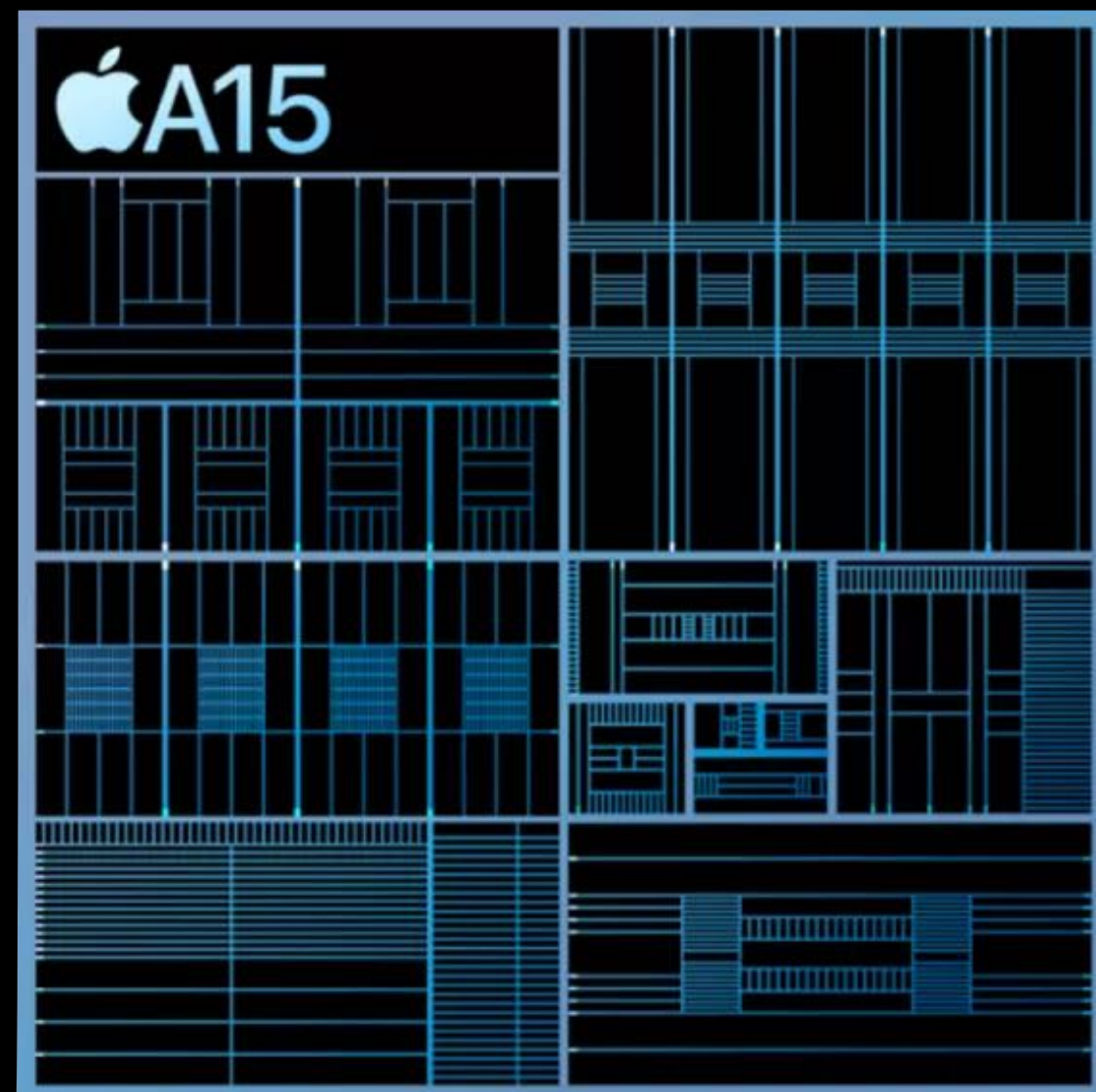
Aiming for 600Mp for All

To date, the major applications for image sensors have been in the smartphones field, but this is expected to expand soon into other rapidly-emerging fields such as autonomous vehicles, IoT and drones. Samsung is proud to have been leading the small-pixel, high-resolution sensor trend that will continue through 2020 and beyond, and is prepared to ride the next wave of technological innovation with a comprehensive product portfolio that addresses the diverse needs of device manufacturers. Through relentless innovation, we are determined to open up endless

The image sensors we ourselves perceive the world through – our eyes – are said to match a resolution of around 500 megapixels (Mp). Compared to most DSLR cameras today that offer 40Mp resolution and flagship smartphones with 12Mp, we as an industry still have a long way to go to be able to match human perception capabilities.



10^{10} Operationen/Sekunde



16^{12} Operationen/Sekunde*

* nur „Neural Engine“-Einheit

Foto: Apple

Edmond de Belamy

From Wikipedia, the free encyclopedia

Edmond de Belamy is a **generative adversarial network portrait painting** constructed in 2018 by Paris-based arts-collective *Obvious*.^[1] Printed on canvas, the work belongs to a series of generative images called **La Famille de Belamy**. The name Belamy is a tribute to **Ian Goodfellow**, inventor of GANs; In French “bel ami” means “good friend” so it is a translated pun of Goodfellow.”^[2] It achieved widespread notoriety after **Christie's** announced its intention to auction the piece as the first artwork created using **artificial intelligence** to be featured in a Christie's auction. It surpassed pre-auction estimates which valued it at \$7,000 to \$10,000, instead selling for \$432,500.^{[3][4]}

The piece is a portrait of a somewhat-blurry man. It is a print on canvas measuring 27 ½ x 27 ½ in (700 x 700 mm.) set within a gilded wood frame. The image was created by an algorithm that referenced 15,000 portraits from various periods.

It is signed at the bottom right with $\min_g \max_D E_x [\log(\mathcal{D}(x))] + E_z [\log(1 - \mathcal{D}(\mathcal{G}(z)))]$, which is part of the algorithm code that produced it. The algorithm was trained on a set of 15,000 portraits from online art encyclopedia **WikiArt**, spanning the 14th to the 19th century.^[5]

The organization that produced it is called Obvious. It is a collective comprising three people, Pierre Fautrel, Hugo Caselles-Dupré and Gauthier Vernier, who are based in Paris, France.

The piece has been criticized because it was created using a **generative adversarial network** (GAN) software package based on prior research by others and implemented by Robbie Barrat, an AI artist who was not affiliated with Obvious, leading to allegations that Obvious contributed minimally to the final work product. Posts on the project's issue tracker show Obvious members requesting that Barrat provide support and custom features.^[6]

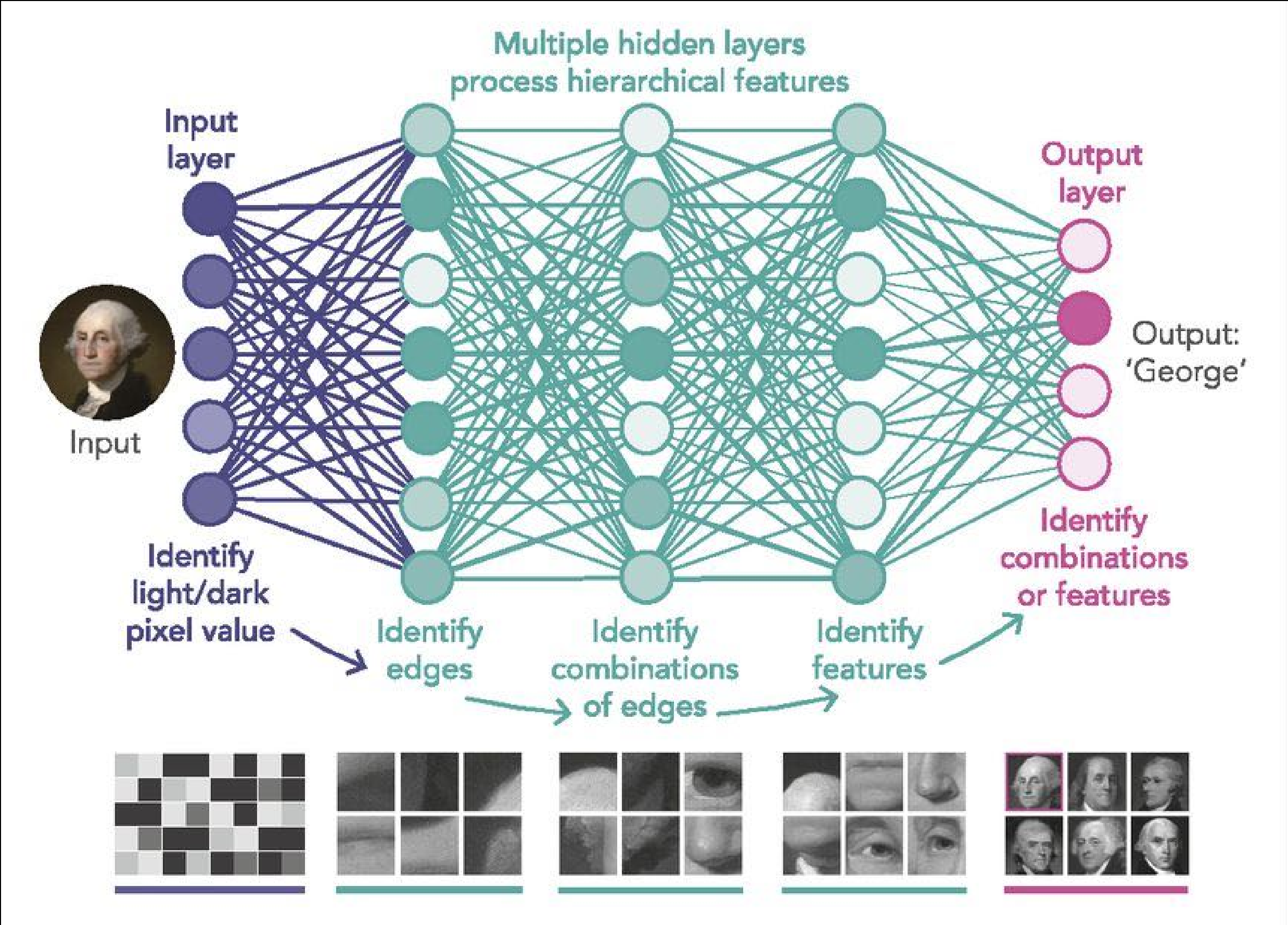
The piece has also been placed within a tradition, dating back to Duchamp's **Bicycle Wheel** of 1913 and Tinguely's **Méta-matics** of the late 1950s, of works

Edmond de Belamy



Artist	Obvious (collective)
Medium	Ink
Subject	Male portrait
Dimensions	70 cm x 70 cm (27.5 in x 27.5 in)

„Deep Learning Neural Network“



<https://www.pnas.org/doi/10.1073/pnas.1821594116>

GPT-3

From Wikipedia, the free encyclopedia

Generative Pre-trained Transformer 3 (GPT-3) is an [autoregressive language model](#) that uses [deep learning](#) to produce human-like text.

It is the third-generation language prediction model in the GPT-n series (and the successor to [GPT-2](#)) created by [OpenAI](#), a San Francisco-based [artificial intelligence](#) research laboratory.^[2] GPT-3's full version has a capacity of 175 billion [machine learning parameters](#). GPT-3, which was introduced in May 2020, and was in beta testing as of July 2020,^[3] is part of a trend in [natural language processing](#) (NLP) systems of pre-trained language representations.^[1]

The quality of the text generated by GPT-3 is so high that it can be difficult to determine whether or not it was written by a human, which has both benefits and risks.^[4] Thirty-one OpenAI researchers and engineers presented the original May 28, 2020 paper introducing GPT-3. In their paper, they warned of GPT-3's potential dangers and called for research to mitigate risk.^{[1]:34} [David Chalmers](#), an Australian philosopher, described GPT-3 as "one of the most interesting and important AI systems ever produced."^[5]

GPT-3 Training Data		
Dataset	# Tokens	Weight in Training Mix
Common Crawl	410 billion	60%
WebText2	19 billion	22%
Books1	12 billion	8%
Books2	55 billion	8%
Wikipedia	3 billion	3%

The image shows a Go board with black and white stones. Overlaid on the board is the text "AlphaGo Zero" in a large, white, sans-serif font, with "Starting from scratch" in a smaller, white, sans-serif font below it. Thin white lines connect the text to specific points on the Go board, suggesting a strategic analysis or a specific game state.

AlphaGo Zero

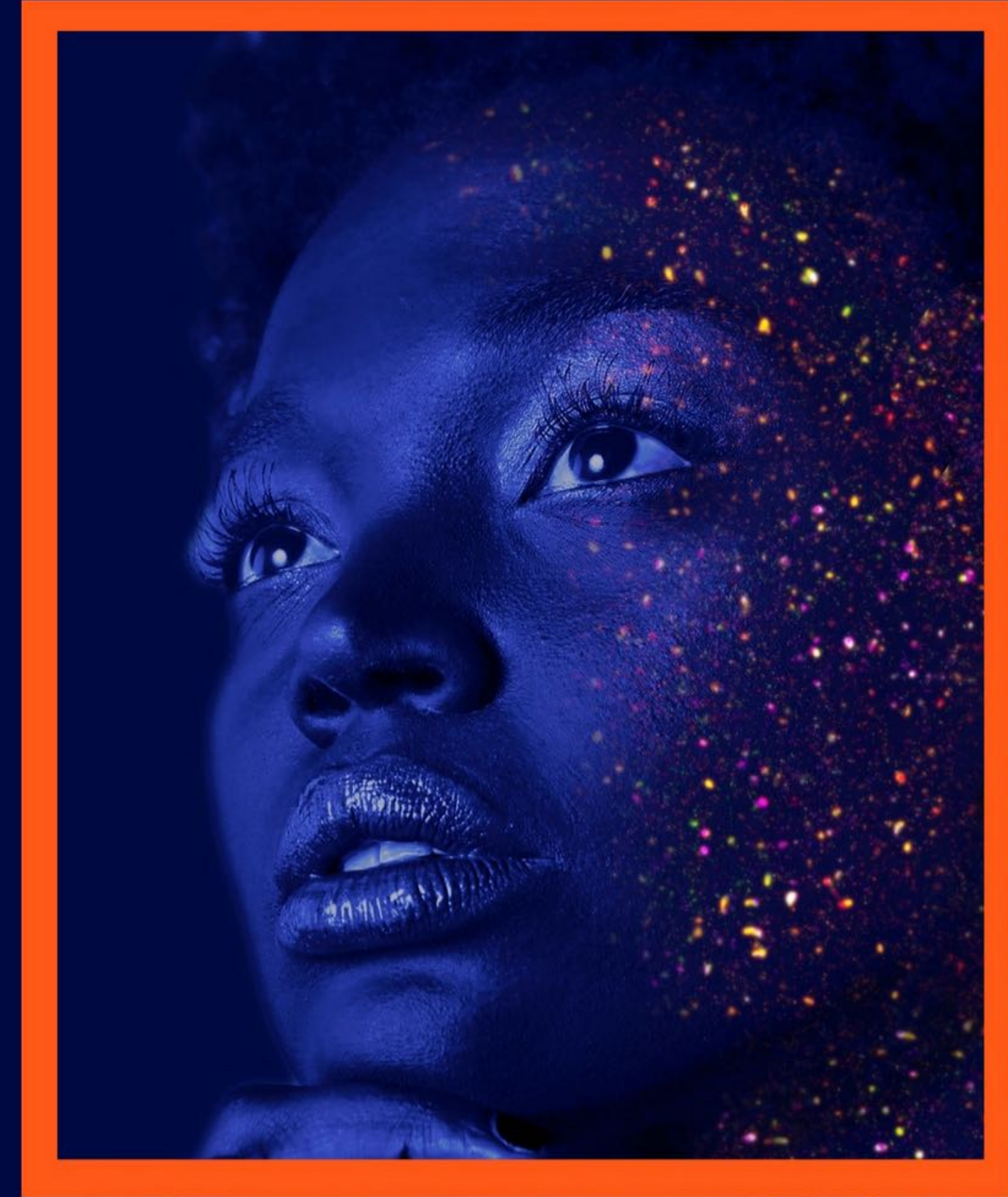
Starting from scratch

„Humankind has accumulated Go knowledge from millions of games played over thousands of years, collectively distilled into patterns, proverbs and books.

In the space of a few days, starting tabula rasa, AlphaGo Zero was able to rediscover much of this Go knowledge, as well as novel strategies that provide new insights into the oldest of games“ (Silver 2017, 358).

Silver, D., Schrittwieser, J., Simonyan, K., Antonoglou, I., Huang, A., Guez, A., ... Hassabis, D. (2017). Mastering the game of Go without human knowledge. *Nature*, 550(7676), 354–359. <https://doi.org/10.1038/nature24270>

HOW NORMAL AM I?



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Mersch, D. (2002). *Ereignis und Aura: Untersuchungen zu einer Ästhetik des Performativen*. Suhrkamp.

Mersch, D. (2019). Kreativität und Künstliche Intelligenz. Einige Bemerkungen zu einer Kritik algorithmischer Rationalität. *Zeitschrift für Medienwissenschaft*, 11(2), 65–74. <https://doi.org/10.25969/mediarep/12634>

Hörl, E., & Parisi, L. (2013). Was heißt Medienästhetik? *Zeitschrift für Medienwissenschaft*, 8(2). <http://www.zfmedienwissenschaft.de/heft/text/was-hei%C3%9Ft-medien%C3%A4sthetik>

Parisi, L. (2013). *Contagious Architecture: Computation, Aesthetics, and Space*. MIT Press.

Parisi, L. (2019). The alien subject of AI. *Subjectivity*, 12(1), 27–48. <https://doi.org/10.1057/s41286-018-00064-3>

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„Planetary Dissensus“

„[...] das Planetarische ist ein fortlaufender Prozess der Schaffung, Artikulation und Transformation menschlicher Subjekte und kollektiver Lebensräume. Der Globus befindet sich auf unseren Computern, aber das Planetarische erzwingt eine vielfältige und weitreichende Reihe von Begegnungen mit Medien, Technologie und Wissenschaft, die diese Praktiken neu gestalten könnten. Das planetarische Werden der Medien ist ein Konzept, das sich mit der Art und Weise befasst, in der der Planet, die Erde und die Umwelt als mediale Projekte dargestellt werden.“

„[...] the planetary is an ongoing process of creating, articulating, and transforming human subjects and collective inhabitations. The globe is on our computers, but the planetary forces a diverse and sprawling set of encounters with media, technology and science that might remake these practices. The becoming planetary of media is a concept that addresses the ways in which the planet, Earth, and environments are figured as medial projects.“

Gabrys, J. (2018). Becoming Planetary. E-Flux. <https://www.e-flux.com/architecture/accumulation/217051/becoming-planetary/>
Spivak, G. (2002). Imperatives to re-imagine the planet. Aut Aut, 72–87.

Collection & Archives / Archives / Exhibition Archive / Critical Zones

Critical Zones

**Observatories for
Earthly Politics**



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Atmospheric Forest

Choose a video below
Wählen Sie unten ein Video aus

Atmospheric Forest
360°
Fast connection

Atmospheric Forest HD

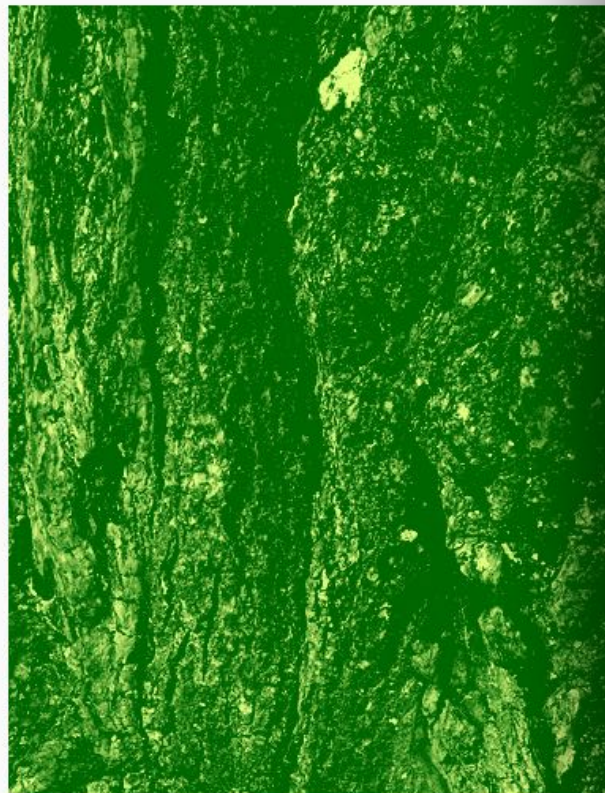
Slow connection

The 360° video can be watched on a computer with any browser as a "click and drag" video sphere. If possible, we recommend using Google Chrome and adjusting the video quality setting to HD or 4K. On smartphones or tablets the videos can be experienced as VR stereoscopic clips using the Vimeo app.

Das 360°-Video kann auf einem Computer mit jedem Browser als "click and drag"-Videokugel betrachtet werden. Wenn möglich, empfehlen wir die Verwendung von Google Chrome und die Anpassung der Videoqualitätseinstellung auf HD oder 4K. Auf Smartphones oder Tablets können die Videos mit der Vimeo-App als VR-Stereoclips erlebt werden.

Smart Forests

How are forests becoming digital environments? The Smart Forests project investigates the social-political impacts of digital technologies that monitor and govern forest environments. Funded by the [European Research Council](#), and based in the [Department of Sociology](#) at the University of Cambridge.



Projects



Events

Participation

This project area analyzes civic apps, platforms and sensors to examine how deforestation and reforestation initiatives are formatted, mobilized and supported via civic engagement. Whether through deforestation “watch” platforms, apps for reporting illegal logging, or monitoring technologies such as acoustic sensors or camera traps for capturing poaching, participatory technologies make the forest present, senseable, and actionable in certain ways, for distinct actors, and through specific datasets. These participatory apps, platforms, and sensing devices are often most oriented toward tracking deforestation, while also supporting and funding reforestation initiatives.



Vielen Dank!
Vortragsfolien unter:
<http://joerissen.name>

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