THE PROMPTAH

#3

Future Positive

A People Magazine
for Curious Minds

Esther Dyson

DLD

Hungry for more? QR codes like this one build a bridge between paper and screen. Please take them as a prompt to point your smartphone camera at the pixel pattern. Your browser will show you the web link embedded in the code—for example, a related DLD session on YouTube. Enjoy!

Friends,

The world is moving faster than ever, and the future feels harder than ever to predict.
Amidst the rapid changes, Artificial Intelligence stands out as the key technology of our young century.
It's set to drive tectonic shifts across every aspect of life as we know it.

Change on this scale sparks creativity and innovation.
But it can also stir unease—fear of the unknown, the hyper-complex, the opaque.
In this context, AI is often compared to a black box.
That's why we believe it's so important to Dare to Know. This isn't just about being curious; it's about having the courage to peek inside that box, to ask questions, and to really try and understand what AI is all about. When we approach it with open minds and a hopeful spirit, we can all work together to build a truly FUTURE POSITIVE.

The Promptah is here to shed light on that metaphorical black box. Only with an informed, optimistic mindset can we seize AI's opportunities and tackle its challenges. In its third edition, the Promptah serves up a carefully—and playfully—curated mix of news to use, and surprising insights from the smartest minds and role models who are currently working on unleashing AI's capabilities.

Championing the vision of a FUTURE POSITIVE driven by thoughtful innovation, **Esther Dyson** headlines our cover. For decades, she has been a crucial voice analyzing technology's societal impact, consistently advocating for human-centric approaches. She was also the first to explain the Internet to all of us at Hubert Burda Media in 1995. She is still our hero today. Her renowned ability to see the bigger picture makes her an **invaluable guide** as we navigate AI, and a compelling example of leadership in **forging a more beneficial technological future.**

Let The Promptah be your source of insight and inspiration on the journey toward an AI future that works for all.
And let yourself be drawn in by our award-winning design—honored with the European Publishing Award and the iF Design Award 2025.

Steffi Czerny,
DLD Conferences

Christian Teichmann,
Burda Principal Investments

Editorial Board

Contents

Are we being good ancestor

Roman Krznaric,
University of Oxford

The way I think about this is that humankind, particularly those of us living in the wealthy countries of the Global North, we have colonized the future.

We treat the future like a distant colonial outpost where we can freely dump ecological degradation and technological risk as if there was nobody there.

How will we be remembered by those generations to come?

Shaping the Future

WHAT'S YOUR LEGACY? HOW TO BE A GOOD ANCESTOR

!

HABA TOWN
IWATE

Instead of thinking on a scale of seconds, minutes, and hours, we need to think on a scale of decades and centuries and even longer.

One of the things we need is cathedral thinking, the idea of embarking on projects with long time horizons which go beyond our own careers, even beyond our own lifetimes. ●
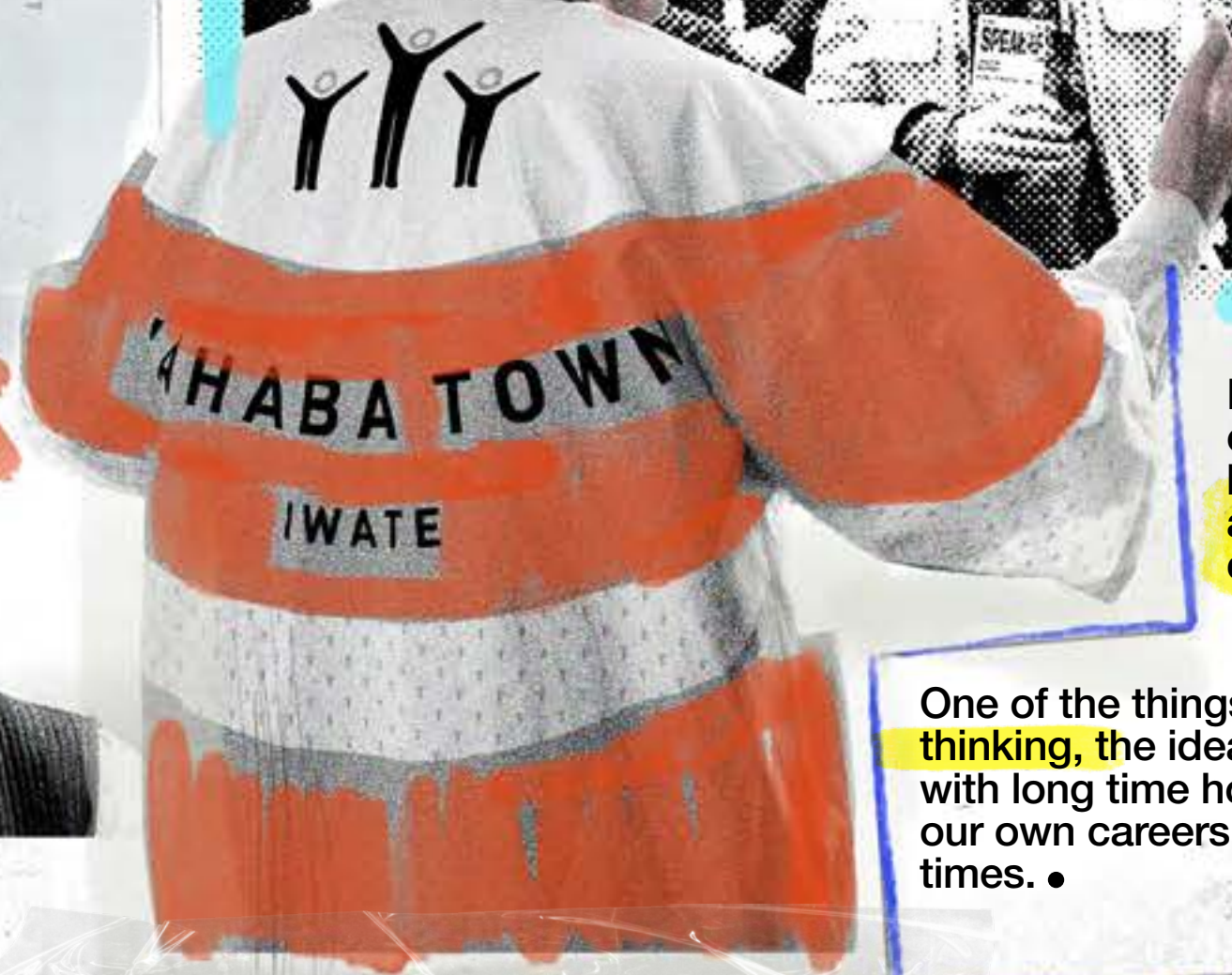
The Myth of Conscious AI

In Greek mythology, Narcissus rejected the company of his fellow humans, falling in love with his own reflection in a pool of water instead.

Throughout history, humans have been captivated by their reflections. We see ourselves in mirrors, and, increasingly, in our advanced technologies, too. The tendency to project ourselves into our creations is nowhere more evident than with the rise of artificial intelligence, and in the rapture-like enthusiasm in which some tech pioneers proclaim that AI systems might not only be intelligent, but also conscious. That they might both think and feel.

The question of whether AI could be, or become, conscious, is of enormous importance. With consciousness comes moral significance. If you can experience things, what happens to you matters. Conscious AI would have its own interests, not just the goals that we humans program in. And if conscious AI turns out to be possible, the prospect of living forever in a silicon dream becomes that little bit closer.

It is easy to be dazzled by the astonishing AI acceleration, and to forget the many and deep differences between our minds, brains, and bodies, and the impressive but limited systems we are building.

Here's one difference that makes a difference. Brains are not computers. The metaphor of the brain as a meat-based GPU cluster is beguiling and powerful, but it is a metaphor nonetheless. The more you face up to the disorienting complexity of a real brain, the less like a computer it seems. There is no sharp distinction between 'mindware' and 'wetware' as there is between software and hardware, and even a single brain cell—a neuron—is a devilishly intricate biological system. Whenever we confuse a metaphor with the thing itself, we lose sight of the wonder of what's really there.

If brains are not computers, there is little reason to think that computation alone would ever give rise to consciousness. You could simulate an entire brain in molecular detail, but this would no more give rise to consciousness than simulating a hurricane would give rise to real wind and real rain.

So why are we so readily beguiled? For Narcissus, beautiful beyond measure, seeing his own face was enough. For the rest of us, the answers lie deep in our species' psychology, with the tendency to assume that intelligence and consciousness—and language—always go together. But just because these aspects of mind go together in us, it doesn't mean that they go together in general. To take the human example as definitional, rather than as one small region in a vast space of possible minds, is another way we get ourselves into trouble.

This is why language models such as Claude, Gemini, and ChatGPT are so effective at pulling our psychological strings. When something speaks to us, we invest it with all sorts of qualities: intelligence, mindedness, and even consciousness. But language models are not interacting with us mind-to-mind, they are—as philosopher Shannon Vallor puts it—reflecting back to us a statistical distillation of our collective past (now with added fancy 'reasoning').

Things didn't end well for Narcissus, and there's danger here for us, too. If we sell our minds too easily to our machine creations, we will overestimate what they are, underestimate who we are, and blind ourselves to the wonders of being a living human being. ●

By Anil Seth — University of Sussex

Anil Seth is a Professor of Cognitive and Computational Neuroscience at the University of Sussex, and author of the Sunday Times Bestseller: "Being You—A New Science of Consciousness."

A RACE TO RECKLESSNESS

By Tristan Harris

When I look at AI, I see an incentive to roll out this technology as fast as possible, by taking many shortcuts. This is dangerous. It's like a race to recklessness with profound implications for society.

Any healthy society needs a solid foundation, and this foundation is already crumbling—in no small part because of the corrosive effects of social media. The incentive of these platforms is to maximize engagement; you're worth nothing to them away from your screen/offline.

Consequently, many things that are good for society—such as spending time with friends and family—are directly in conflict with the business model of social media companies.

With AI, I fear we're again setting the wrong incentives. Think of the popular game Jenga, where players take keep stacking blocks on top, trying not to make the tower fall. AI could add many benefits to society, like new antibiotics and improved cancer screenings. Those are very powerful capabilities. Looking to the top of the tower you see amazing, positive things. You can be an optimist. But if you look lower down, you'll see that you had to pull out foundational building blocks to create these new capabilities. Yes, we can make cool new AI videos and art—but no one knows what's true anymore, and democracy is weakened.

That's why my DLD25 talk was about taking a holistic view. AI could bring astonishing new benefits—and at the same time we're facing new risks that we have to address. It's important that people understand what those risks in the Jenga tower are going to cost us if we don't do it right. We must hold AI developers liable if something goes wrong.

There's a narrow path when technology tends to work well in society—and that is when power is matched with responsibility. Removing this can lead us towards corruption and chaos. The potential benefits at the top of the tower crumble to the ground.

What we're advocating for at the Center for Humane Technology is that we, as society, should view our current trajectory with AI as unacceptable and commit to a narrow path of responsible AI deployment. Our current trajectory would disrupt millions of jobs without people having a new, alternate economic future. But that future is not inevitable. Right now, we're seeing is a bit like taking an old car and putting a rocket on the back of it to go way faster—but without upgrading the steering or the brakes. We currently invest a thousand times more money into making the engine than making the sand times faster, than making the steering of the car a thousand and give society a much-needed upgrade for the age of AI. Solving this challenge will require as much AI. Solving this challenge the new technology in the expertise about the new is in the engine. That's steering body as there is all be better off if our challenge now, and we'll all be better off the foundation, we slow down a bit and strengthen the foundation of society—so that we can reap the benefits of AI together. ●

Tristan Harris is is a globally respected thought leader on the intersection of technology and humanity. He is co-founder of the Center for Humane Technology, a non-profit that focuses on transforming the incentives that drive technology, from social media to artificial intelligence.

Foresight and Values: How BAIOSPHERE Shapes Bavaria's AI Future

Artificial intelligence lies at the heart of a global innovation race—and Bavaria is determined to take a leading role.

With BAIOSPHERE, the state has established a central AI network that integrates research, business, and society. As Managing Director of the BAIOSPHERE AGENCY, Bavaria's AI agency, I experience daily how this collaboration drives a visionary yet responsible AI future.

Bavaria, and Munich in particular, has firmly established itself as one of Europe's leading AI hubs. According to CS-Rankings, Munich's universities—primarily the Technical University of Munich (TUM) and Ludwig Maximilian University (LMU)—rank among Europe's top institutions for AI research. Simultaneously, the innovation landscape is flourishing: In 2024 alone, Bavarian startups attracted €2.33 billion in venture capital—more than any other region in Germany. With over 12,000 STEM students in Munich, the region ensures a steady influx of skilled talent. This synergy between academic excellence and a vibrant startup ecosystem positions Munich as an influential AI hotspot, resonating far beyond Germany's borders.

This leading position didn't happen by chance. The Bavarian government proactively invested heavily through the Hightech Agenda Bayern, committing approximately €5.5 billion to cutting-edge research, academic education, and innovation. This investment has created 1,000 new professorships and 13,000 additional student positions, over 100 of which specifically target AI. Such forward-looking policies lay the groundwork for Bavaria's prominence on the international stage, both in AI research and its application across key economic sectors including healthcare, manufacturing, robotics, and mobility. The Bavarian network, BAIOSPHERE, is built on three strategic pillars: setting strategic directions that sustainably strengthen Bavaria, building networks and partnerships that enhance Bavarian AI excellence and visibility, and intensifying the transfer of knowledge and technology into practical applications.

Networking science and business is a key to success. BAIOSPHERE promotes interdisciplinary and cross-sector collaboration, showcasing the latest AI advancements. Through initiatives such as BAIOSPHERE CONNECT and BAIOSPHERE CONFERENCES, we regularly bring startups, SMEs, and academia together to initiate joint projects generating both scientific and economic value. The Munich AI LECTURES, featuring international AI thought leaders, and the BAIOSPHERE COMPASS—a practical orientation tool designed especially for SMEs—further exemplify how we disseminate AI expertise broadly, particularly targeting young talents and smaller businesses. This creates an ecosystem where talent development, innovation, and practical application go hand in hand. We take pride in the active involvement of members of the Bavarian AI Council and leading AI experts in developing the BAIOSPHERE COMPASS.

Yet, despite our enthusiasm for technology, our direction remains firmly aligned with digital sovereignty and ethical values. It's not enough merely to utilize AI—we strive to shape it according to our ethical standards and democratic values. A cornerstone of this effort is the soon-to-launch Bavarian foundational AI model within BAIOSPHERE. This fundamental AI system, akin to today's large-scale language models, is developed locally in Bavaria, multimodal, broadly applicable, and intended to extend significantly beyond mere text and speech processing to interact seamlessly with the physical world. This initiative positions Bavaria's research and business communities at the forefront of developing critical technologies, ensuring independence from external providers.

This vision drives us forward. Bavaria aims not merely to benefit from the AI revolution but to actively shape it—in harmony with European values and for societal benefit. Through BAIOSPHERE as a robust platform for collaboration and innovation, we demonstrate how a regional network can achieve global influence. Our objective is clear: Artificial intelligence "made in Bavaria," trusted, economically dynamic, and instrumental in responsibly addressing today's great challenges. ●

Michael Klimke,
BAIOSPHERE AGENCY

AI can only respect our values if we shape it together. Bavaria unites academia and industry within BAIOSPHERE to promote ethical and transparent AI. Technology must strengthen people and democracy—not endanger them.

Michael Klimke has been Managing Director of BAIOSPHERE AGENCY/ the Bavarian AI Agency since 2022. This was commissioned by the Bavarians to network the Bavarian AI ecosystem of science, business, and society under the name BAIOSPHERE, and to create synergies.

Mark your calendars for the DLD BAIOSPHERE Days on September 10—11, part of the DLD Future Hub: Impact of AI, taking place at Amerikahaus in Munich.
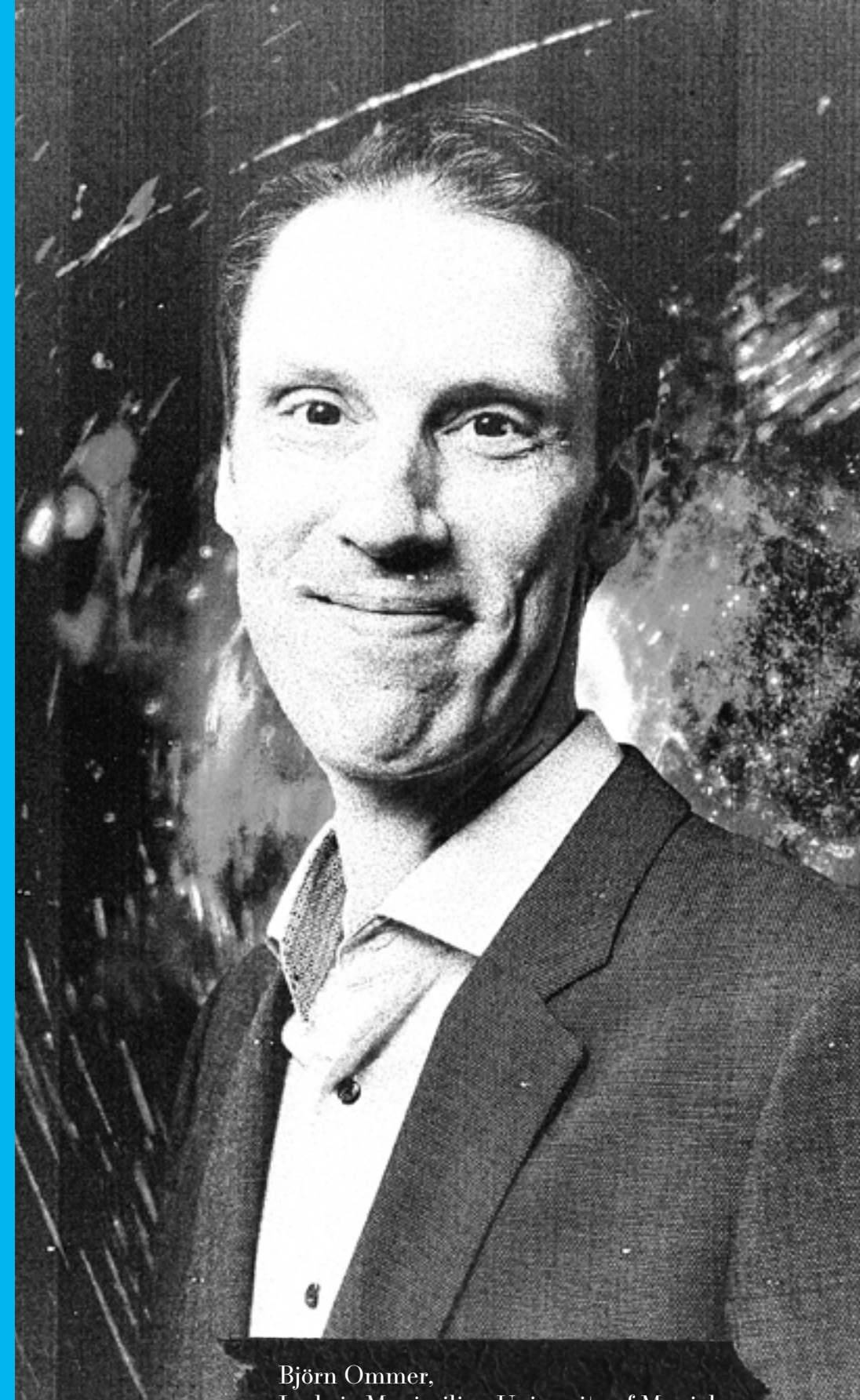
Björn Ommer,
Ludwig Maximilian University of Munich

Building a New Foundation Model

We're drowning in information, but we're starving for the true knowledge underneath.
What we try to go for, what our goal here is, is going in the direction of a more holistic, generalistic AI.
One that has a lot of different capabilities, that is not only focused on just writing or just looking at images, but that can go all the way to acting as well.

Fabian Theis,
Helmholtz Munich

A Push for Europe

We're already seeing major AI investments in Bavaria and across Europe—in compute, data, and algorithms.
The next step is a mindset shift: thinking beyond scientific impact toward driving European innovation.

As members of the Bavarian AI Council, Björn Ommer and Fabian Theis help shape the region's AI future—lending their expertise and networks to both the Bavarian government and the pioneering BAIOSPHERE initiative.

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TANIT KOCH

FOCUS/The New European

New power centers emerge, old ones battle for their standing, there are alternative facts, authoritarianism is on the rise, trust is radically declining.

BENEDIKT

The key question here is: Is there an end of history? Does history have a goal? Is there a natural pattern of things getting better? Interesting and very philosophical questions. Are we ready to defend democracy? Are we willing to defend democracy?

Are we able to reverse the reversal of progress?

FRANKE

Munich Security Conference

The End of "The End of History"?

YOSSI VARDI

DLD Chairman

One of the main game changers that happened in the last 30 years is the rise of social media.

It's a very powerful tool. It's very addictive, but contrary to regular drugs, which affect your brain, social media is not only very addictive, it's also very attractive.

I think that the move that we see in Europe, and in other countries, from the idea of the end of history, from the liberal democracies, et cetera, is being strongly affected by social networks.

MORITZ

Kiel Institute for the World Economy

SCHULARICK

I think from a European perspective, we have to say today that we don't really own Europe because we can't defend or protect it. And I think that's a challenge that we all have to face up to.

AZEEM AZHAR

Exponential View

We now have AI systems that can process enormous amounts of information, try to peer through the fog of war. The nature of cyber attacks has changed, expanded. We see cyber physical attacks as well, and we've witnessed the arrival of a brand new type of weaponry being used at scale, which are drones.

Omira AI

JACK DE SANTIS

There are millions of things happening every second. It's impossible for a human to sort through all of that in real time. So we're building an AI that can do that. One that allows us to execute electromagnetic spectrum warfare maneuvers in milliseconds, which is impossible for any human to do.

From the Front Lines: Defending Europe

GIEDRIMAS JEGLINSKAS

National Security and Defence at the Lithuanian Parliament

We can hide from it, we can ignore it, we can voice concern, but if we don't do anything about it, the threat to Europe is not going to go away.

KADI SILDE

Helsing

What we're realizing is that we need to redefine "mass." We're working on precisely-engineered, low-cost mass that can be produced at scale—and often delivers the same or even better results than legacy systems.

Why Europe Must ... ... Build Its Own Stack

The Current Digital Stack

The layers

- Data and Artificial Intelligence
- Software
- Cloud
- Internet of Things & Devices
- Networks
- Chips
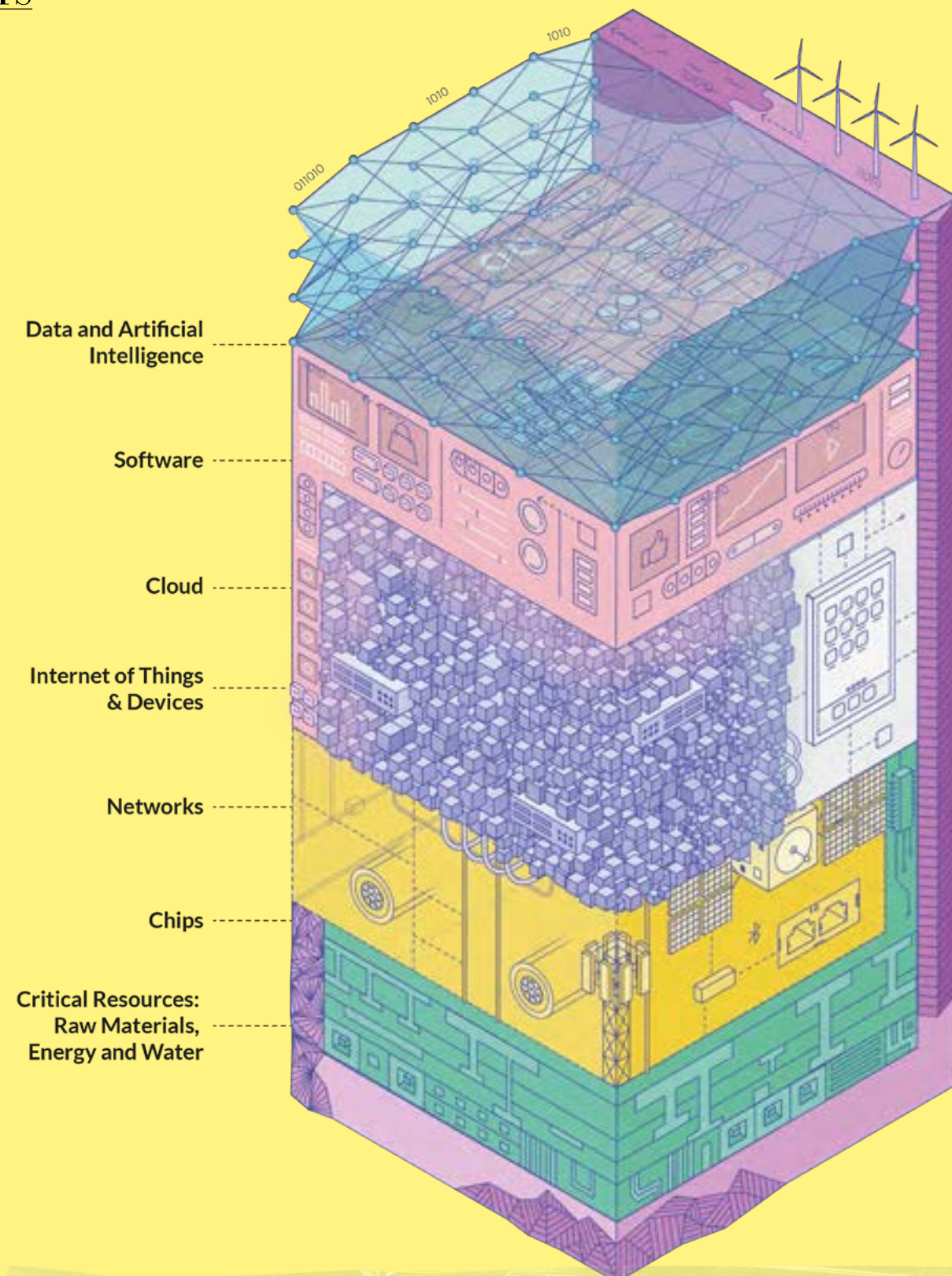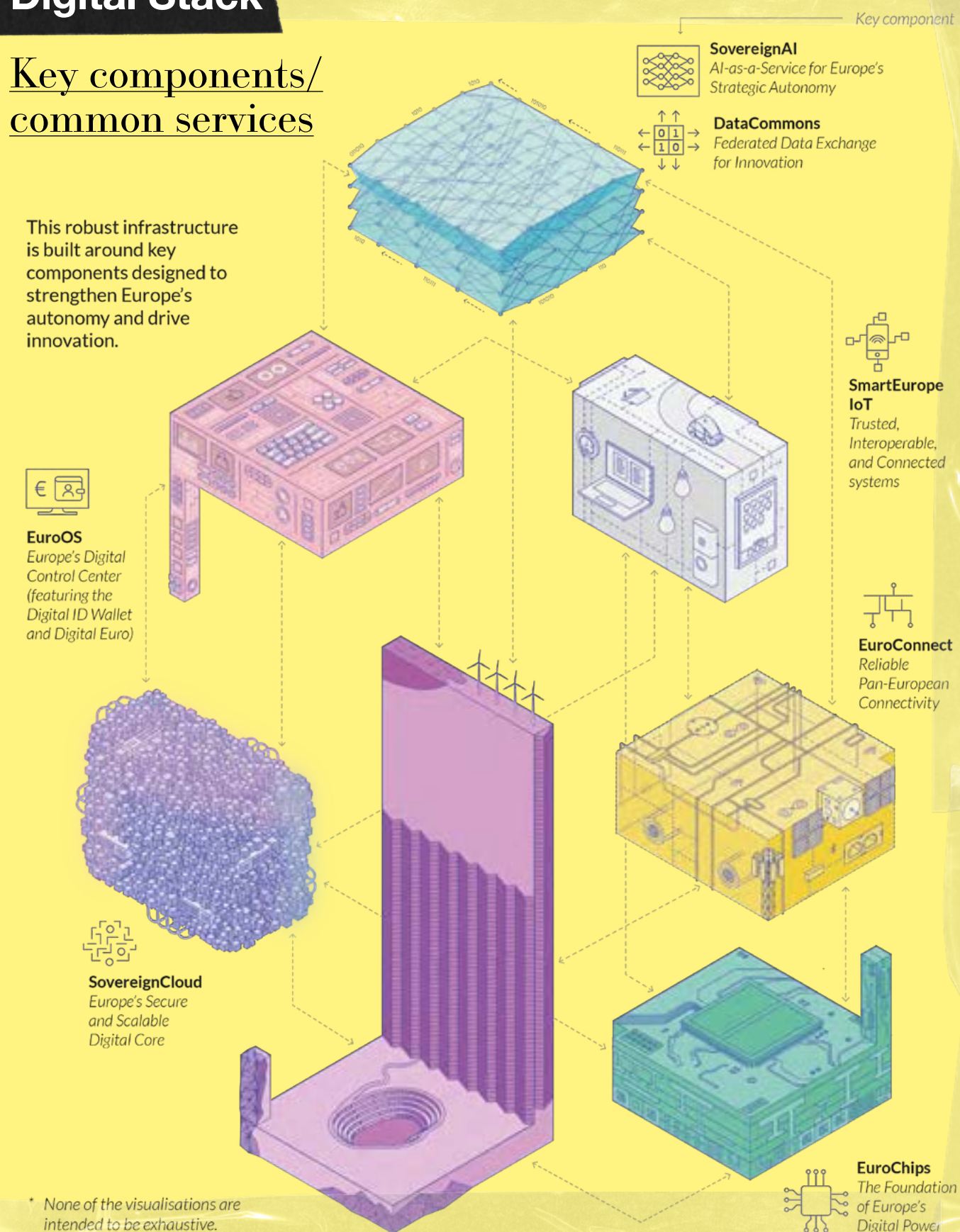- Critical Resources: Raw Materials, Energy and Water

Infographics by Dima Jarse, The Hague; https://www.euro-stack.info/docs/EuroStack_2025.pdf

Europe's Common Digital Stack

Key components/ common services

This robust infrastructure is built around key components designed to strengthen Europe's autonomy and drive innovation.

Key component

SovereignAI
AI-as-a-Service for Europe's Strategic Autonomy

DataCommons
Federated Data Exchange for Innovation

SmartEurope IoT
Trusted, Interoperable, and Connected systems

EuroConnect
Reliable Pan-European Connectivity

EuroOS
Europe's Digital Control Center (featuring the Digital ID Wallet and Digital Euro)

SovereignCloud
Europe's Secure and Scalable Digital Core

EuroChips
The Foundation of Europe's Digital Power

* *None of the visualisations are intended to be exhaustive.*

By Francesca Bria   University College London

Who owns the infrastructure of your life?

It's not a question most people ask at breakfast. But we should.

We live inside systems we didn't design and barely understand. Systems that sort, recommend, approve, reject, surveil. Systems that process our health data, our money transactions, our identities—sometimes in the blink of an eye, often without our knowledge, rarely with our consent.

These systems aren't abstract. They are deeply material.

They are made of chips, cables, satellites, sensors, software, cloud architectures, AI models, and opaque algorithms.

They form what we call **the stack**—the invisible scaffolding of the modern world.

And the stack is not neutral. It encodes decisions about power, value, and direction. It shapes who we are allowed to be, and who gets left behind.

In today's global digital economy, a handful of corporations—headquartered outside Europe—control most of this infrastructure. They dictate the rules of innovation. They decide who gets access, and on what terms. They extract data from our schools, hospitals, cities, and institutions. And increasingly, they are setting the defaults for our democracies. This is not simply a question of market share. It is a question of sovereignty.

Europe didn't fall behind because we lacked ideas.

We invented GSM. The Web. The smart card. We were early visionaries of public service internet.

But over time, we stopped building—and became comfortable regulating.

To be clear, regulation is important. The GDPR, the AI Act, the Digital Markets Act—these are powerful tools that reflect a European commitment to rights, fairness, and accountability. They are admired and emulated globally. But if the 20th century taught us anything, it is that standards follow capacity. We cannot regulate what we no longer control.

This is why we need to build again. The EuroStack is a call to action. Not a new product, but a shared project.
Not a tech platform, but a European mission.

It means reclaiming agency over the key layers of the digital infrastructure: from foundational technologies like semiconductors and cloud, to enabling layers like digital identity, payments, data governance, and artificial intelligence.

The stack is the new form of construction of power in the digital age.

We need sovereign cloud systems to host public data within democratic jurisdictions. We need interoperable digital ID and a digital Euro to empower citizens and businesses alike.

We need AI trained on datasets that reflect European languages, cultures, and public values—not optimized for clickbait or control. This isn't about closing off from the world. It's about building resilience.

The pandemic, the climate emergency, and geopolitical conflicts have shown how dependent we are on fragile supply chains and external platforms. Without investment in strategic capacity, we will remain vulnerable.

Other regions are not waiting. India built a powerful digital public infrastructure with Aadhaar and UPI. Brazil's Pix reshaped financial access in record time. The United States is pouring billions into its chips and AI infrastructures and reshoring critical technologies. China's state-led approach blends planning and execution at scale.

Europe must define its own path —open, democratic, decentralized.
We have world-class research, vibrant civic tech movements, cooperative models, and cities like Barcelona, Munich, Amsterdam, and Vienna that are already leading the way. We also have the beginnings of a strategy: IPCEIs on microelectronics and next generation cloud, StackIt, open-source alternatives, a powerful High Performance Computing (EuroHPCs) network, trustworthy AI research, and data commons. But these initiatives remain fragmented. What we lack is coordination, ambition, and long-term commitment.

If we want a digital Europe that reflects our values, we must treat critical digital infrastructure as a European public good.

That means redirecting public investment toward public value.

It means designing institutions and procurement systems that serve ambitious missions, people, and the environment.

It means seeing digital sovereignty not as isolation—but as the foundation for democracy, inclusion, and sustainability.

> **Let's stop outsourcing our technological future.**
> **Let's stop waiting for someone else to solve it.**

The next decade will be defined by those who own the stack—and those who dare to build one worth living in. ●

Francesca Bria is an innovation economist working at the intersection of technology, geopolitics, economy, cities and society. She is Honorary Professor in the Institute for Innovation and Public Purpose at UCL in London and a fellow at Stiftung Mercator.

DLD GOES BUNDESTAG

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of the Interior

Alexander Dobrindt
DLD14

President of
the Bundestag

Julia Klöckner
DLD23 Lagos

Katherina Reiche
DLD23

Federal Minister for
Economic Affairs and Energy

Wolfram Weimer
DLD16

Minister of State for Culture

Verena Hubertz
DLD23

Federal Minister for Housing,
Urban Development
and Building

Dorothee Bär
DLD25

Federal Minister of Research,
Technology and Space

DLD Speakers
for a Future Positive
Germany

Members of the new government have spoken at DLD
before. We wish them all the best in the
transformation of a new and hopeful Germany!

Photo: Reichstag by Francesco Zivoli / ©Unsplash

Dorothee Bär, German Federal Minister of Research, Technology and Space

I think it's important to just begin. I like the American sentence, "Do it now, say sorry later."

Markus Haas, O₂ Telefónica

We need a digital ministry in Germany that brings together all the loose ends, that consolidates all the IT and digitalization islands that we have today.

DIGITAL

Danyal Bayaz, State Minister of Finance of Baden-Württemberg

The question is, how will a country that dominated the technologies of the 20th century dominate technologies of the 21st century?

Why do politicians waste so much time on discussing what coalition is NOT possible? In a situation where, even if there are significant differences, those positions need to be overcome.

Gordon Repinski, Politico

AGENDA

The U.S. is putting so much money into highly innovative technologies for industries like defense.
We know we need to be able to defend ourselves. So why don't we make sure that we also connect this need with developing highly innovative technologies?

Marie Niehaus-Langer, EOS

2030

Colin Jarvis, OpenAI

REDEFINING INTELLIGENCE:
HOW REASONING IS

We think, 2025 is the year of AI agents. You can think of them as the assistant that you can talk to.
…

RE-SHAPING AI

I think what we're going to allow them to do is to do more complex things.
…

As long as they reference, as long as they check their work, and as long as we use the right level of validation before we roll these things out, we're going to be able to do much more sophisticated things with these models in the coming year.
…

IN 2025

In the years forward, we might even start to approach super intelligence where models are coming up with novel discoveries themselves.
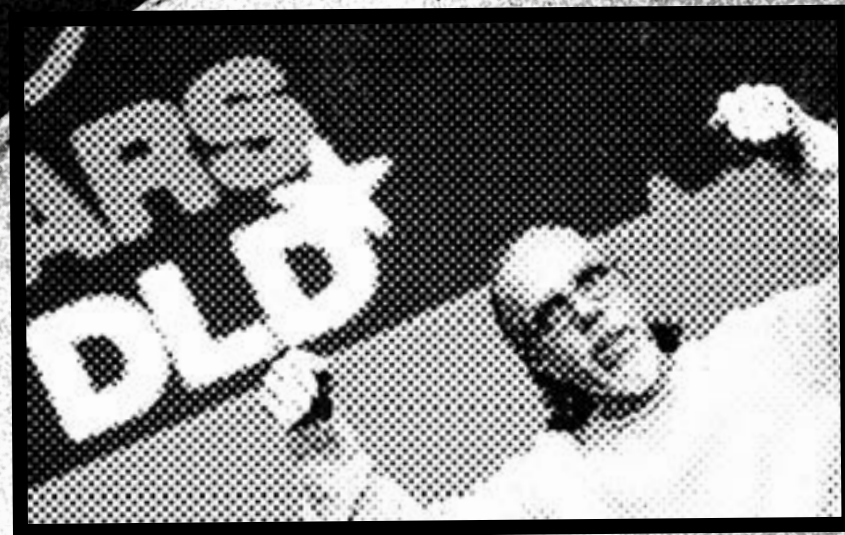
Technology is humankind's best opportunity for making the world a better place. Technology is one of the few things that humans can create and control. Technology is the longest lever for society's collective will and imagination. And technology is evolving faster than any other part of society. Because of those factors, technology presents the most opportunities for radical transformation of our circumstances as a species.

I believe in people and I believe in humanity. People will generally act to maximize their own best interest, but I believe that enlightened self-interest is enough for humanity to thrive and for society to bend towards being more equitable.

Most organizations struggle to be innovative for two reasons. Firstly, people bring their fears and self-limiting beliefs with them to work. Secondly, most places fail to build a culture in which it's possible and even attractive for employees to act with a collaborative growth mindset. I believe that even modest improvements on the second front within innovation-seeking organizations would produce significant incremental value per dollar spent over the long term.

When innovation-seeking organizations are wired to think long term about how they invest in their people and their efforts, and when these organizations are wired to have their success assessed over the long term, I believe these organizations will produce more value per dollar spent than most other organizations currently do. They will also do more good for the world per dollar spent than most organizations do, while investing in their employees more deeply at the same time. The opportunity to demonstrate such a win-win-win scenario is what drives me. •

What Drives Me

Astro Teller, Captain of Moonshots

Photo Moon by Nasa / @Unsplash

Astro Teller heads X, Alphabet's renowned innovation lab dedicated to developing radical new technologies to solve some of the world's most intractable problems.
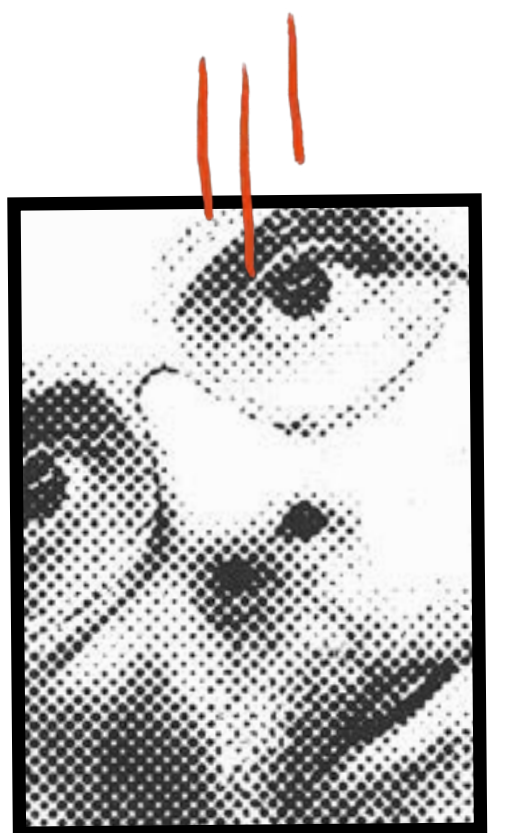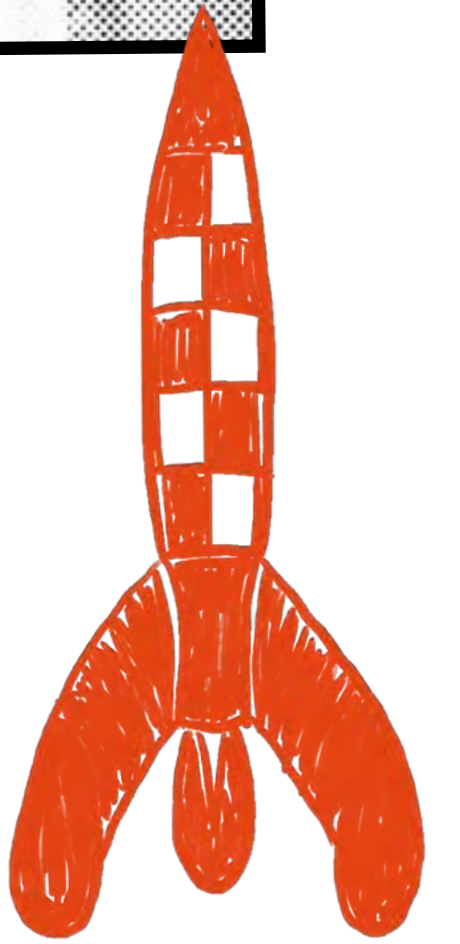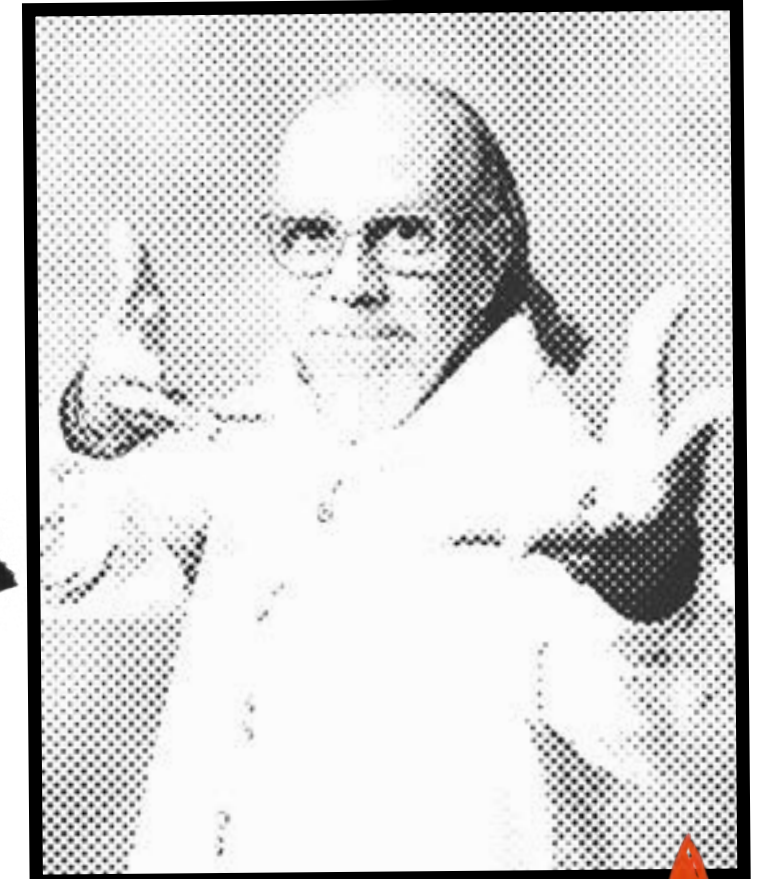
Mark Zuckerberg,
CEO of Meta (formerly Facebook)
@DLD09

24

Lady Gaga,
Musician
@DLD09
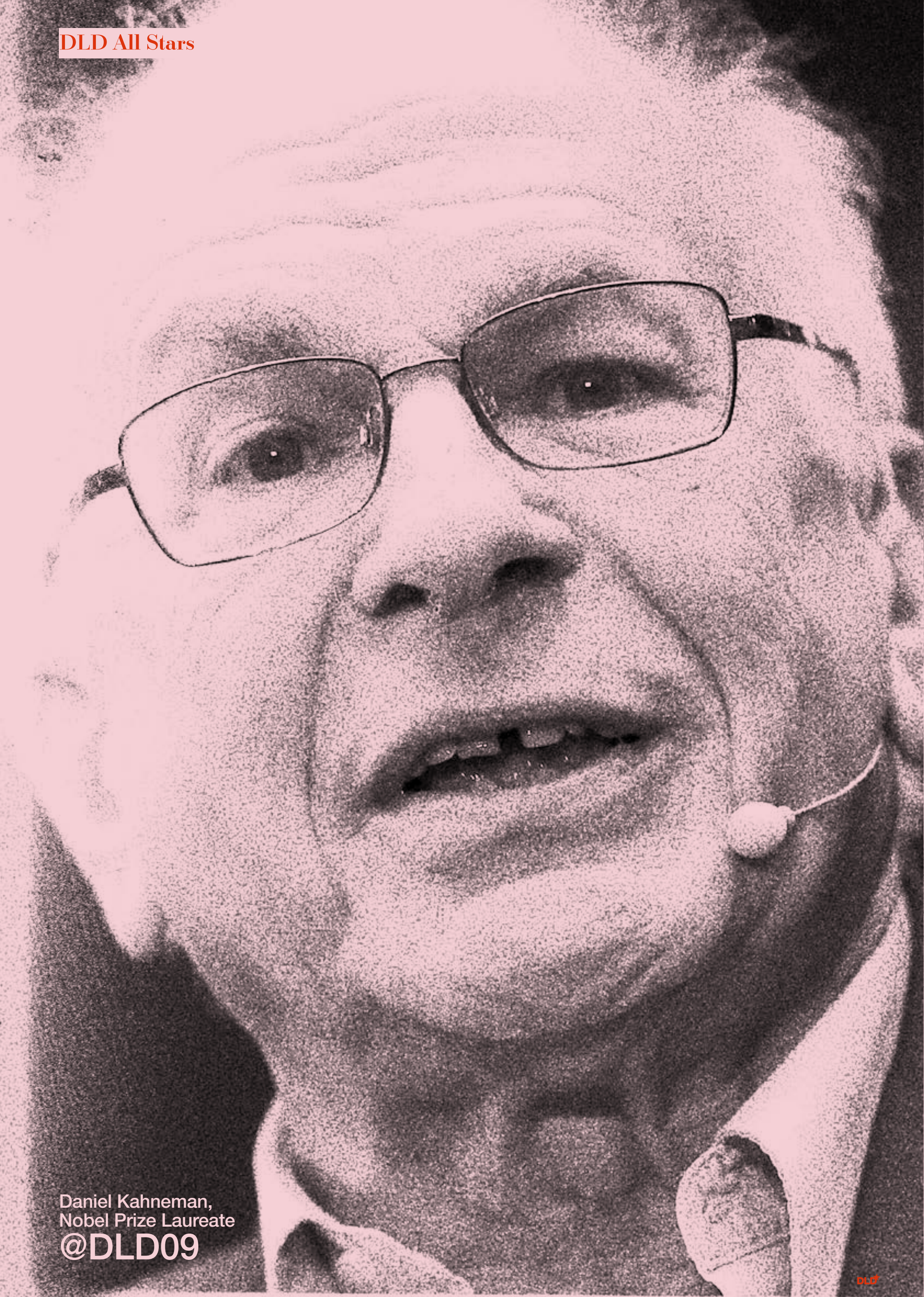
Daniel Kahneman,
Nobel Prize Laureate
@DLD09

Eric Schmidt,
former CEO of Google
(now Alphabet)
@DLD11

Yoko Ono,
Artist
@DLD12

Sebastian Thrun,
Founder of Google X & Serial Entrepreneur
@DLD12

— THE PROMPTAH —

Zaha Hadid,
Architect
@DLD13

Demis Hassabis,
CEO & Co-Founder of Google DeepMind
@DLD17

pe's Chance and How to Embra e It

Proxima Fusion is developing Stellaris, their vision for a commercial power plant utilizing stellarator technology to achieve controlled nuclear fusion.

Francesco Sciortino, Proxima Fusion

By Christian Teichmann
Burda Principal Investments

At DLD25, I had the pleasure of having Francesco Sciortino, the co-founder and CEO of Proxima Fusion, on stage. The title of our panel was "Game-Changing Engineering."

Christian Teichmann is the CEO of Burda Principal Investments, the international growth capital arm of Hubert Burda Media. He spearheads BPI's global investment strategy, focusing on scaling high-growth digital and technology companies in areas like consumer internet, fintech, and enterprise software.

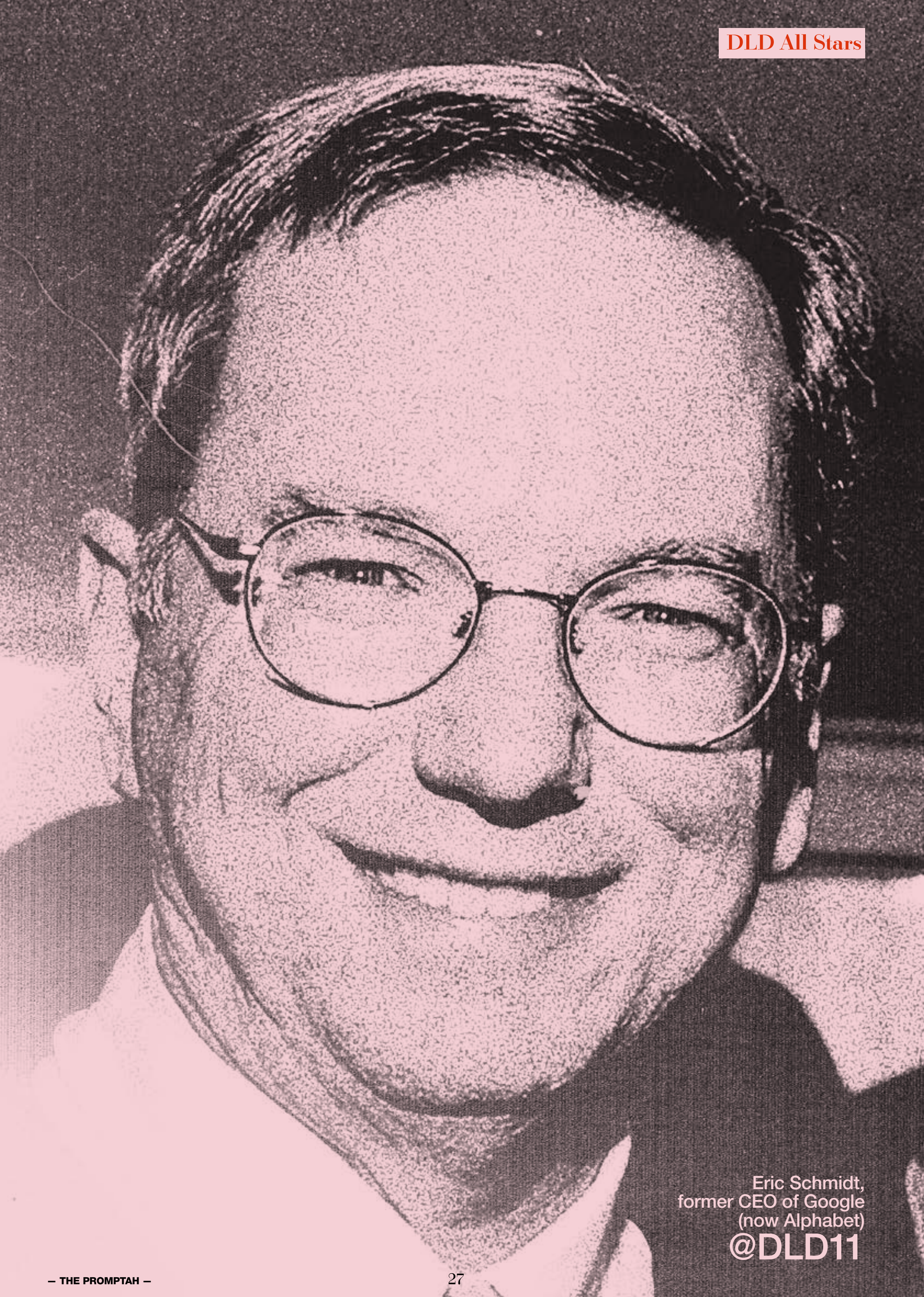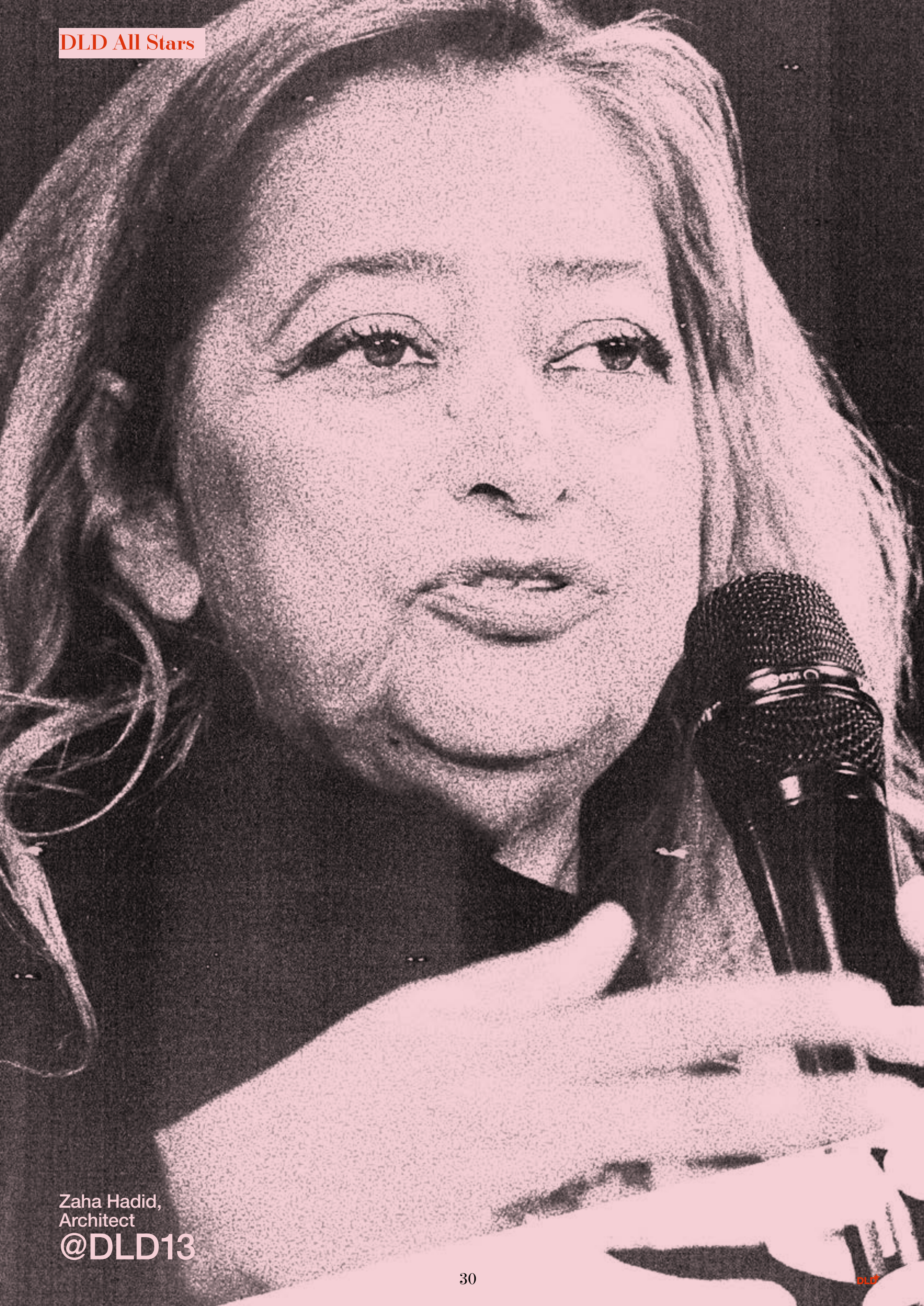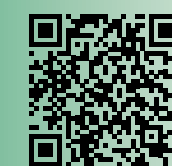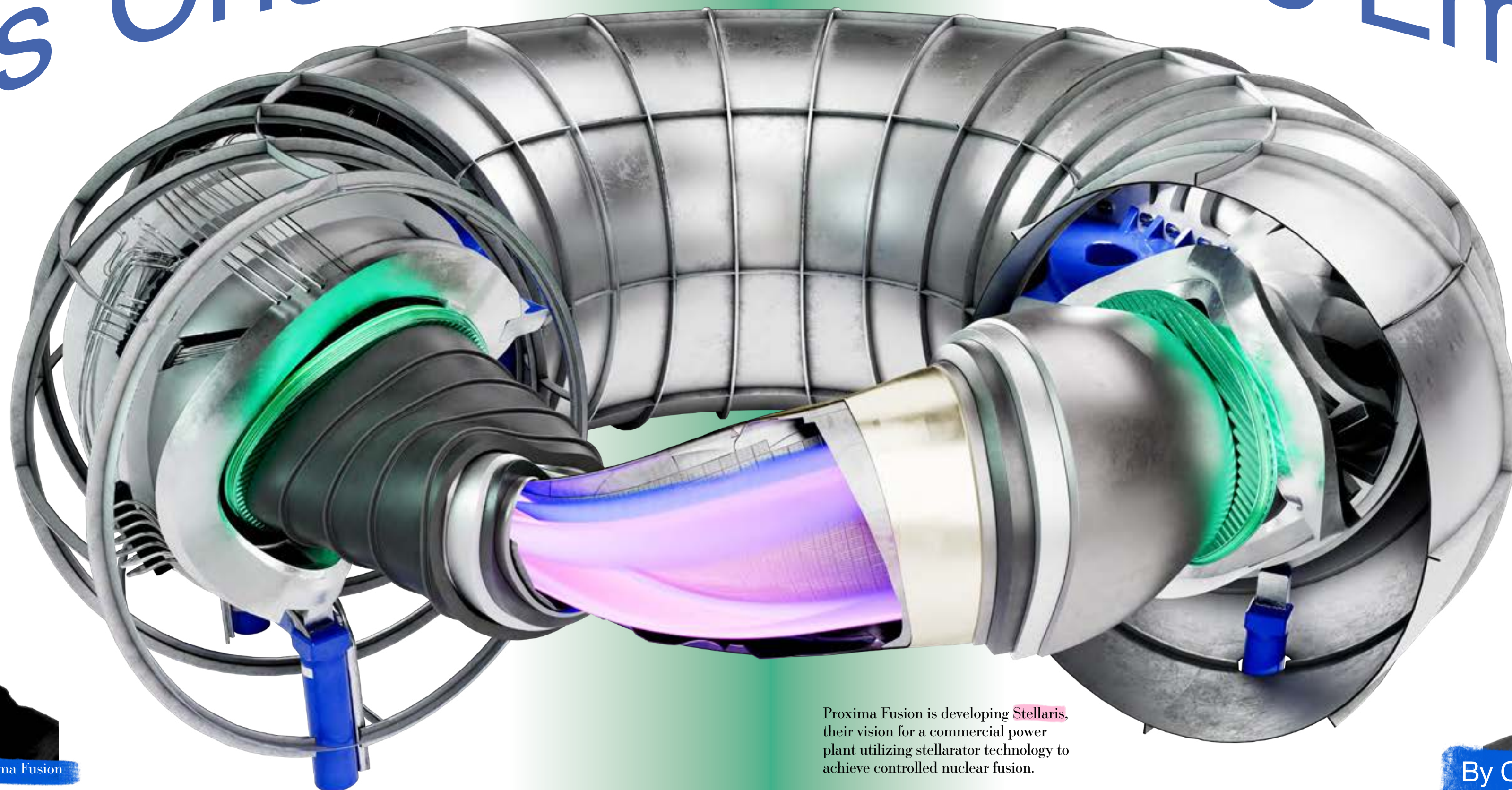**We chose this headline to discuss and showcase the power of machine-learning-based and simulation-driven engineering and how it will change the engineering world. With his concise team of engineers, some of whom come from Formula 1 teams, he has managed to design and test hundreds of thousands of different versions of the stellarator for fusion energy within just 18 months.**

Another important aspect Francesco Sciortino mentioned is their approach to manufacturing. There are numerous manufacturing and production skills and facilities across Europe, many of them underutilized. Francesco Sciortino spoke about his vision of a networked production. While they invest heavily in R&D and simulation-driven engineering, they will also leverage existing manufacturing know-how in Europe. As such, Proxima Fusion signed a partnership with Bilfinger Noell to leverage its experience and skills to build complex magnet systems and special machines for fusion.

You wish and hope that brilliant entrepreneurs like Francesco Sciortino, who deliberately choose to start their businesses in Europe, succeed at speed on a global scale. There are so many other examples of brilliant founders and talent in Europe. In late 2024, Ian Hogarth asked the question "Can Europe build its first trillion-dollar start-up?" and responded that the EU first needs to solve a lack of experienced founders, a lack of 'audacious capital,' and excessive US buyouts. Pieter Garicano, in his post "Failure Cost"—a response to Ian Hogarth's article—cited a paper by Olivier Coste and Yann Coatanlem that argues: "The reason more capital doesn't flow towards high-leverage ideas in Europe is because the price of failure is too high. These costs arise when a major venture fails; it follows that the higher the probability of failure in a sector, the greater the relative disadvantage for Europe. The lack of repeat founders and 'audacious' venture capital are symptoms of this underlying malady." The problem is not that Europe lacks ideas or ambition. Europe has many talented researchers and entrepreneurs filing patents. In terms of filed patent applications, Europe is not far behind the US and Japan while China outperformed the US by 3x in 2023. Innovation isn't stalled at the commercialization stage either. Europe has fantastic university programs for this translation such as UnternehmerTUM in Munich and many others—150 in total—that were listed by the Financial Times in its Europe's Leading Start-up Hubs ranking 2025.

When thinking through Hogarth's original question, "Can Europe build its first trillion-dollar start-up?", I think that there is one other very important and fundamental aspect that we should consider: European venture businesses must get much bigger much faster. We need a more European mindset, more in terms of the 'Airbus idea,' particularly in capital-intense industries such as artificial intelligence, fusion energy, quantum, or space tech. We need more Europeans uniting behind the most promising teams rather than national competition for capital and talent within Europe. We should aim to consolidate venture businesses in these sectors much earlier than we currently do. That way, venture companies become more competitive for large tickets from both key accounts and investors. AI will define the future of intellectual property—an essential pillar of both democracy and the modern economy. Hence, AI sovereignty should not have a defensive touch, but it is key for European corporations to have control over their data and the AI capabilities they need to be able to shape their future. Arguably, fusion energy, quantum, and space-tech fall into the same category where sovereignty for Europe really matters and is existential for Europe.

Just weeks after this year's DLD, the EU presented its idea for the '28th regime.' These EU legal frameworks won't replace national laws but offer an optional alternative. It aims to foster an innovation-friendly environment that makes it simpler and faster for European innovative startups to grow and scale up in a single European market.

Early consolidation, along with the EU's planned '28th regime,' could propel Europe towards more sustainable global competitiveness and enable it to play a more significant role globally. ●
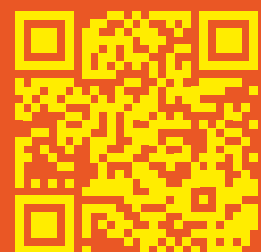
David Kirkpatrick, Techonomy

Shaping the Future of Mobility:

Transportation represents something over 20% of global greenhouse gas emissions.

The emissions from transport have actually been growing despite the extraordinary success of EVs.

But there is a lot of optimism about the potential of hydrogen in the energy transition, because when it burns it just creates water as the exhaust.

The Role of

83% of the battery capacity for automotive is coming from Asia. And that puts us at a great risk, especially today when we all think of the geopolitics and tariffs and the global tensions. The battery is around 40% of the cost of the car. That's a huge price lever that Asia or any country who owns that component part can impact on the whole product.

Jennifer Dungs, EIT InnoEnergy

Hydrogen

We think there is a need for a second technology alongside battery electric vehicles to walk towards zero emission. And this technology is fuel cell electric vehicles. The main difference to EVs is how the energy is stored. In fuel cell electric vehicles, instead of storing the energy within the car in huge batteries, the energy is stored as gas, as hydrogen gas in a hydrogen tank.

Michael Rath, BMW Group

and Beyond

Bridging the Divide— How to Link Nature and Financial Systems

Martin Stuchtey, The Landbanking Group

Is this the moment when we need to create a new informational infrastructure—one that allows us to work fairly, transact, and invest? What kind of moment are we in?
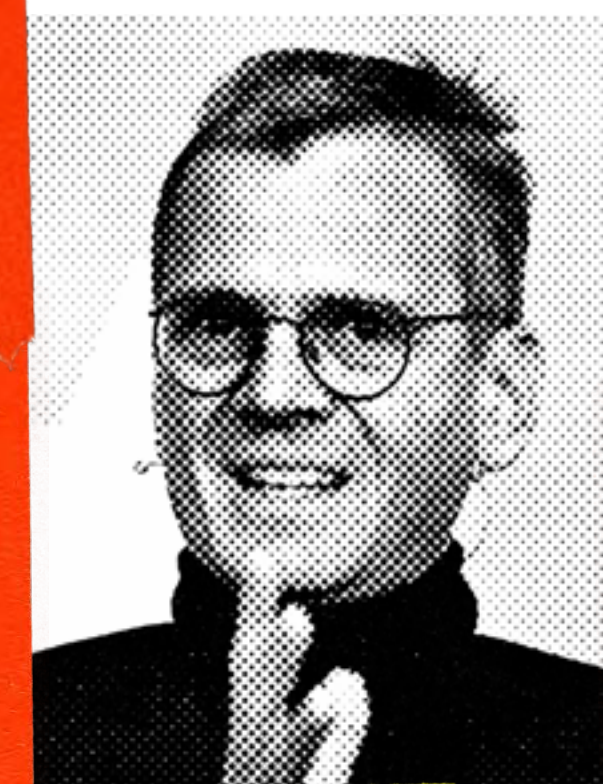
Dominik Asam, SAP

The starting point for different societies and different industries is so different that ... you have to create a new currency. You cannot simply say this will be dealt with in euros and dollars.

Sylvie Goulard, Bocconi University/ Banque de France

The situation is serious. We should not underestimate what is happening right now: the destruction of nature, biodiversity loss. The protection of nature and biodiversity is very important for our souls, but also for business.

NEW ENERGY SYSTEMS

Azeem Azhar, Exponential View

Vera Pinto Pereira, EDP

Bob Mumgaard, Commonwealth Fusion Systems

Vijay Vaitheeswaran, The Economist

Hundreds of millions of years ago, little critters and plants photosynthesized the sun's energy. They were intermediated by high pressure and tens of millions of years, and they produced that coal that we are burning. We're already harnessing the sun's energy in a much smarter way, of course, through solar energy. And that to me is one of the most exciting things that is happening today in the energy system.

It really is time, not only for the energy transition, but it's time for an energy revolution. We need a world that is powered by clean energy. In 2024, the world has finally risen to that dramatic 1.5 degrees centigrade. It's now warming at an unprecedented rate. And the consequences are everywhere. Solar energy is a source of obvious sustainability. It's 96% less carbon intensive than any other technology, including all the materials considered. And it's virtually inexhaustible. It also brings relevant savings. It protects families and businesses from market price volatility. We're all very familiar with that, especially here in Europe over the last three or four years it can power homes, vehicles, even space-ings, even space-crafts. NASA's Mars rovers, for example, are powered by the energy of the sun.

People have a very hard time with scale. The energy system is so incredibly large that it's almost mind-boggling. But in fact, if one factory that makes automobiles today made the same number of key parts for fusion machines, that would be enough to replace the entire energy system in 10 years.

We've added new energies, but that cannot continue in an age of carbon constraints in a climate-constrained world, so that's what's new this time around. That's why I point to the triple E, electrification, efficiency, and emissions-free energy.
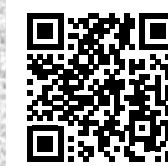
Victoria Ossadnik, E.ON

A decade ago, people would have said energy is really boring, bad, all about utilities. But energy is one of the most exciting things on the planet. And when you hear about AI, when you hear about all this great stuff, for me, the greatest thing is what we are changing in energy. If we don't change what we do in energy, we are in deep trouble and our kids are in even deeper. So we need to do something—and what could be nicer if you are innovative and you love technology and business than to change something?

Fabienne Serfaty, Xlinks

The conditions for solar farms in the desert are phenomenal. We have 12 hours of pretty constant sun every day. And then we have trade winds in the early morning hours and in the evenings. They complete the sun profile very well. In total there are about 90 hours of high energy, constant, every day—with very few exceptions. It's also noteworthy that the desert is an area of the world that is mostly unpopulated. So, the disruption to the landscape, to the habitat is a minimal one compared to building that kind of scale on the coast of Europe, for example.

NEW ENERGY FOR EUROPE — WE MAKE IT WORK!

Decarbonization in Times of Change

By Andreas Urschitz, Infineon Technologies

When we check our social media, read or watch the news, one thing quickly becomes clear: We live in times of profound change. Everything seems to be in flux. Our world is becoming increasingly polarized, with ongoing conflicts fueling instability. Inflation threatens our economies and increases social inequality. Nationalism is re-emerging as a supposed alternative to globalization, and geopolitical tensions are rising.

At the same time, we are witnessing remarkable technological breakthroughs. Artificial intelligence is reshaping industries and disrupting the world as we know it. The pace of change is unsettling for many people. They feel that they are losing fixed points on which they once relied on. Uncertainty has become the new normal.

In these times, it can be tempting to try and stop or even turn back the clock. But this is a misconception. Change does not stop just because we close our eyes. This is especially true when it comes to our climate. If we don't want global warming to worsen, we need to act now. And with technology developing much faster than humanity can adopt, we have to make choices when focusing on what we can control. Even in these times of uncertainty, global decarbonization efforts are a top priority. We must continue the path set out in the Paris Agreement. For me, this means two priorities: innovation and collaboration.

Innovation allows us to imagine and create the solutions we need to meet the challenges of decarbonization. That's why we need to put all our effort into it. We have already come a long way: the technologies for a decarbon-

ized society are all available, made possible by incredible advances in semiconductor technology. Renewable energy from the sun and wind is already cheaper than any other form of energy, cheaper than fossil fuels. Supplemented by the necessary infrastructure, including storage systems, cheap and clean energy can be available day and night. The electrification of industry and mobility is underway on a global scale.

We are also improving the energy efficiency of existing and emerging applications, such as artificial intelligence. Energy efficiency in power-hungry applications such as AI data centers is reaching new heights. We can limit this momentum with high-efficiency power solutions. Just one example: If all the world's data centers used the state-of-the-art power supply solutions we offer at Infineon Technologies, we could save about 22 million tons of CO_2 per year. That's about as much CO_2 as 7.5 million cars with internal combustion engines emit every year.

And we also need more collaboration. Innovation rarely happens in isolation. The more we work together, the better our chances of developing new solutions that will help us achieve a low-carbon economy. That's why we need to build strong ecosystems where established companies, startups, and research institutions work closely together to bring innovation to life.

I put my energy into imagining the future that I wish it to become. Into driving the transformation instead of being transformed by reality. I am convinced: If we focus on what we can control, decarbonization becomes a catalyst for us to work together, to drive innovation, to create business value—and most importantly, an obligation and responsibility to protect our planet for generations to come. Because future is not what just happens. It is what we create. ●

Andreas Urschitz is a Member of the Management Board and Chief Marketing Officer (CMO) at Infineon Technologies, a global leader in semiconductor solutions. He is a passionate advocate for leveraging technological innovation, particularly in power systems and IoT, to drive global decarbonization and enhance energy efficiency across industries.

A New Frontier in Cancer Treatment

Cyriac Roeding, Earli

What if we could take CONTROL of CANCER?

What if we could tell it what to do rather than us trying to catch up with the latest mutation and constantly being at least one step behind? That's what we're trying to do at Earli.

Organoid Computing: Can Nature Save AI?
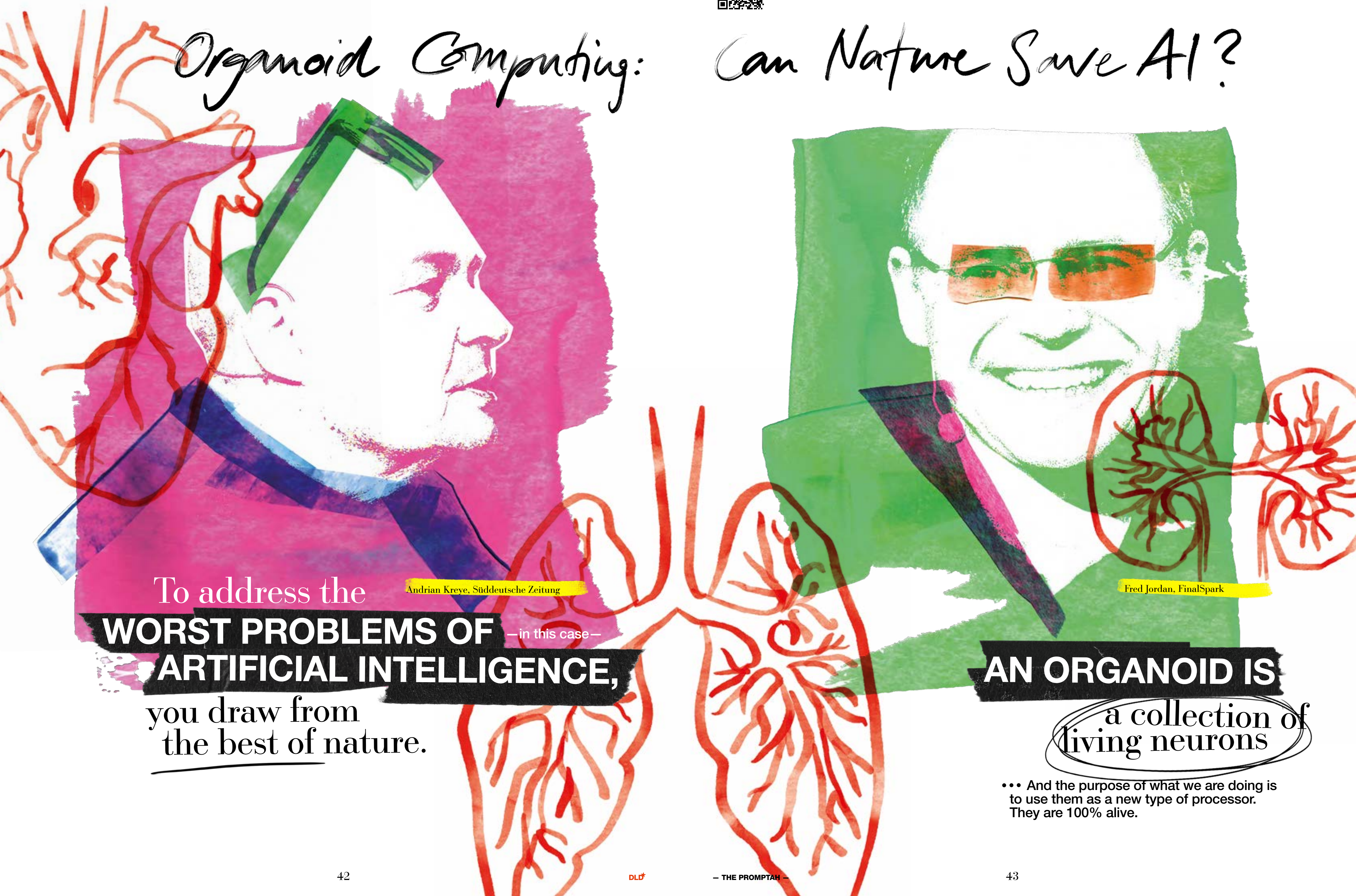
Andrian Kreye, Süddeutsche Zeitung

To address the **WORST PROBLEMS OF** —in this case— **ARTIFICIAL INTELLIGENCE,** you draw from the best of nature.

Fred Jordan, FinalSpark

AN ORGANOID IS a collection of living neurons

••• And the purpose of what we are doing is to use them as a new type of processor. They are 100% alive.

Slowing Down the Aging Process

Loooooooooooongevity NOW

Chris Mirabile, NOVOS

Aging isn't some immutable force that's programmed into us necessarily. It's multiple factors that are kind of conspiring against us, causing the degradation of our cells and, by extension, tissues, organs, and our whole body.

Marco Iannaccone, HypoVereinsbank/UniCredit

We're looking into what kind of solutions a bank can design for the future—for people living longer, healthier lives—in areas like insurance and finance.
So that when the time comes, after years of working and taking care of yourself, not only can you live longer, but also enjoy life and benefit from the plans you made early on.

Nina Ruge, Author & Journalist

I believe we can slow down the aging process. And if people live longer and healthier lives through longevity programs, we have to discover new business models for them.

It's All About the Data ...

AI, Health & Confidentiality

Jennifer Schenker, The Innovator

At a time when we're navigating complex global health challenges, the fusion of technological breakthroughs and rich, valuable data promises to open a vital gateway to a model of care as finely tuned to individual needs as the rest of our digital interactions.

Björn Eskofier, Friedrich Alexander University Erlangen-Nürnberg (FAU)

The children of the future will be born with access to this personal health data space—and for them, it will be easy to gain access to their personal data in this internet of health data.

Greg Lavender, Intel

No one wants to give up their personal data because it has massive economic value. It's about getting provable security, provable confidentiality —otherwise no one trusts it.

The Psychedelic

There really is nothing like it. It's an absolute renaissance of possibilities.

Steve Jurvetson, The Jurvetson Foundation

Psychedelics are the only tools that actually address root causes of mental health issues.

Genevieve Jurvetson, The Jurvetson Foundation

Anne Philippi, The New Health Club

The old, criminalized narrative around drugs is still strong—especially in Europe.

Renaissance

The Future is

E-N-H-A-N-C-E-D

Christian Angermayer,
Apeiron Investment Group

in conversation with
Anne Philippi, The New Health Club

We are entering a new age of enhancements:
Advancements in technology and biology are paving the way for significant improvements in human capabilities and experiences.

We are experiencing a time of real innovation, unlike the past 20 years:
Unlike the previous two decades, current developments focus on transformative changes that could enhance human life fundamentally.

Our biology and brain will change dramatically for the better:
Future innovations are expected to improve our physical and mental health, making us more resilient and capable.

Some people will choose to stay natural, while others will opt for enhancement:
As enhancements become more common, society will see a divide between those who prefer natural living and those who seek to enhance their abilities.

All world religions have had tools for enhancement:
Throughout history, various religions have utilized methods, such as rituals and substances, to facilitate spiritual growth and transformation.

The desire to transform and change reflects a human wish to connect with the divine:
This longing for improvement is driven by a universal quest to reach higher states of existence or understanding.

Performance-enhancing drugs are being endorsed, requiring them to be classified as medical products prescribed by doctors, similar to how engineers work with cars:
The medicalization of performance-enhancing substances could standardize their use, ensuring safety and efficacy under professional guidance.

Aging will be different in the future; we will not age as we have in the past:
Innovations in health care and biotechnology could alter the aging process, allowing for extended vitality and health.

Data is needed for performance-enhancing drugs:
Scientific research and evidence are necessary to establish the safety and effectiveness of these substances.

Psychedelics were ready for use but were demonized by the government under Nixon and traditional media, leading to a stigma that lasted 30 years, despite their promising results in treating depression:
Historical backlash against psychedelics has hindered their potential benefits in mental health, overshadowing their therapeutic applications.

We are experiencing a redefinition of personal health and a rise of 'health libertarianism,' where individuals and communities wish to take charge of their own health rather than relying on the state:
There is a growing trend for people to seek autonomy over their health choices, advocating for personal responsibility.

Everyone should have the right to define their own bodies:
Individuals should have agency in determining how they manage their health and enhancements.

A new definition of medicine is needed; the current definition has been in place since the 1920s, which limited freedom and introduced risks:
The traditional medical model may not adequately accommodate contemporary advancements and patient autonomy.

The Flexner Report defined illness and deviation from the norm, contributing to the misconception that being gay was an illness:
Historical definitions of illness based on societal norms have had lasting negative impacts on marginalized groups.

Preventative sessions with psychedelics could help prevent mental health problems before they develop into depression:
Utilizing psychedelics in a therapeutic setting may offer proactive mental health strategies.

The definition of medicine is shifting toward prevention and a more libertarian approach:
There is a movement toward prioritizing preventive care and respecting personal choices in healthcare.

Psychedelics can serve as medicines, though the legalization of such substances can be problematic:
While psychedelics hold therapeutic potential, their legal status poses challenges for research and clinical use.

In ancient Greek culture, psychedelics were used twice a year in a defined setting, suggesting that modern use should also be intentional and somewhat medical:
Historical practices highlight the importance of structured environments when using psychedelics for maximum benefit.

At age 30, our brains may lose interest in innovation and openness, affecting the ability to learn new things:
Brain plasticity typically decreases with age, which can limit engagement with new ideas.

Psychedelics can help rejuvenate the brain, allowing for "changing your mind" and promoting neuroplasticity:
These substances may facilitate brain reorganization and cognitive flexibility, enhancing learning and creativity.

A Brief History of the Roots ——— of DJ Culture
by Haseeb Iqbal
A Brief History of the Roots and spaces behind DJ culture!

DLD Music School

When appreciating the roots of DJ culture, we must look towards the Caribbean as a land where the foundations were laid for much that has since come. It was in the 1940s, in Kingston, Jamaica, where the concept of the Soundsystem was first introduced: an outdoor party where huge speakers would be loaded on a truck alongside a generator, turntable and microphone. Soundsystems would be run by certain groups who would charge for an admission fee as people would gather and dance to the music. The earliest sounds that were played in Jamaica were American Jazz as well as Rhythm & Blues records—these were the same songs that were being played on the local radio stations and whilst the British ruled Jamaica, up until 1962, it was strictly British and American music which was allowed to be played on the radio. Many of these records were imported directly from America as many Jamaicans would spend the summer seasons working on farms in America.

Tab Smith— My Mother's Eyes—1953

This American connection very much informed the sounds that were played at the earliest outdoor parties, however, it was after the first Jamaican studios were built in the 1950s that the island started to develop its own sound as the 1960s arrived. Fusing together the traditional Calypso and Mento elements alongside American Rhythm & Blues, the sound of Ska was born. Characterised by bars made up of four triplets with constant basslines and guitar chops on the offbeat, Ska was a dancefloor-oriented sound which tended to make an audience shuffle. It was a sound which arose shortly before Jamaica's independence and, crucially, it allowed Soundsystems to play the music of local artists at a time when radios were still not allowed to under British law. This elevated the popularity of Soundsystem culture and suddenly the DJs were crucial mouthpieces for the unheard sounds hailing from the island. DJs, producers and operators such as Prince Buster, Duke Reid, and Clement Coxsone-Dodd were central forces for the growth of this sound, recording in their independently built recording studios before using their Soundsystems to reach the masses.

Prince Buster— One Step Beyond—1964

As the dances became more popular, the concept of the Soundsystem clash came to fruition—a scenario where multiple Soundsystems would compete against each other, playing the hottest new music, taking turns to play on their speakers whilst the winner would be judged by the audience's reaction to their choice of music. This competition drove the DJ culture and so, Soundsystem DJs would go to the local studios to find the best, unreleased music. They would ask producers to double certain records they had, pressing new songs onto acetate discs also known as hot wax. The use of 'doubling' is where the word 'dub' stemmed from, and so a one-off, unreleased record became known as a 'dubplate'—a term that still exists in DJ culture around the world now. As the 60s continued, a new sound came out of Jamaican independence—Rocksteady. The precursor to Reggae, its sound was heavily influenced by the American Rhythm & Blues music, underpinned by a soulfulness that was expressed with slower rhythms and a more romantic disposition. The birth of Rocksteady chimed with the inception of multi-track recording as certain studios began to gain more modern forms of technology that aided the recording process.

In 1968, Soundsystem operator Rudolph 'Ruddy' Redwood also known as Mr Midnight was looking for exclusive tracks to play at a dance he was running. He approached his good friend Duke Reid, one of the pioneering figures in Rocksteady whose label 'Treasure Isle' very much laid the foundations for the Reggae music which followed, and asked him if he had any unreleased music that Redwood could play to excite his audience. Duke Reid responded by cutting a one-off dubplate of a

song called 'On the Beach' by The Paragons. In fact, it was his engineer Byron Smith who cut the song in the studio for Redwood and the following day when Redwood, dropped the record, something strange happened. The vocals didn't arrive. After a few moments, Redwood realised that Byron Smith had accidentally left the vocals out whilst cutting the song on the new multi-track mixer. Within a few seconds, he observed a crowd response he had never seen. A crowd of dancers absolutely losing themselves with excitement, loving the music, able to appreciate the flowing instruments and the enchanting sonic developments of the production. The Soundsystem's MC, Wassy, then started to freestyle on his microphone over the instrumental song, sending the crowd into even more excited disarray. Apparently, the response was so good that they played that song on repeat for 45 minutes.

The Paragons— On the Beach—1968

Suddenly two musical visions were born. The vision for instrumental dance music on a soundsystem. And the vision for an MC to freestyle over music in front of a crowd: rapping. The following day, the record producer Byron Lee told his friend about what had happened at the dance and his friend took great note of this. His friend was a man called King Tubby, known for running a TV and radio repair shop as well as helping repair soundsystems which would struggle with the precarious tropical climate of the island. He also built amplifiers and ran his own Soundsystem, obsessed by the science that surrounded sound and deeply knowledgeable about the sonic components. King Tubby was fascinated by what he had heard and spent the next few years experimenting with the multi-channel mixer and exploring the possibilities of instrumental Reggae music, which came to be known as Dub. Through manipulating frequencies, emphasising basslines, distorting arrangements, and implementing delays, King Tubby laid out the foundations for a brand-new vision of sound. Dub music was born, and he was heralded as the inventor of the remix. The Soundsystem parties now no longer just focused on the vocal music but instead put great emphasis on the instrumental Dub sounds as drums and bass mixed with more melodic elements to create a fascinating new sound.

Mudies All Stars—Black Stick Rock (Version)—1972 (Engineered by King Tubby)

It was during this time that the foundations of Jamaican DJ culture took off and reached New York as DJ Kool Herc moved to The Bronx in the late 1960s after growing up in Jamaica. Deeply inspired by the Soundsystem parties and relationship between the microphone and turntable, Herc pioneered the use of two turntables. He would play funk and soul tunes, isolating the percussive breaks—a technique which became common in Jamaica—allowing the instrumental drum elements to flow for longer and allowing MCs to freestyle over those sounds with a microphone. This laid out the vision for the hip-hop culture that followed as the microphone became a key part of the African American expression, voicing the tough realities that faced the youth in the big city. Thier percussive, rhythmic sounds inspired a culture of dancing and art as breakdancing and graffiti thrived throughout New York as young people found new outlets to express themselves. ●

Gil Scott-Heron—The Revolution Will Not Be Televised—1971

& *Afrika Bambaataa—Zulu Nation Throw Down—1980*

Haseeb Iqbal is a London-based DJ, broadcaster, writer, and curator celebrated for his deep and exploratory approach to music.

Stay tuned for the DLD Music School with more insights on the sounds, stories, and spaces behind DJ culture!

THE ROLE OF AI IN TECHNOLOGY, MUSIC CREATION AND PERFORMANCE

The synthesizer works in a similar way to AI.
Back when I started making music, the synthesizer was invented to give composers ideas—but not necessarily to be creative without the presence or the aid of the creator.

AI today also requires the input of a creator and therefore is no different!

> The concept is basically simulating what I would do if I were standing in front of an orchestra, playing the music I have written. And as I am standing there listening to it, I may say to the violins: "Let's separate rather than playing unisono."

With a fair-minded composer using AI, the technology is utilized to enhance the original thought. It will be used to provide more ideas, but always based on the composer's original idea.
You ultimately make the decision whether the result an AI suggests or provides is serving your idea or not.

I think that the art and the beauty of a musical piece is always in the eye of the beholder.
It's up to the listener to decide whether they want music performed completely organically, or an AI-enhanced interpretation, or one where technology had some hand in it.

When I got my first drum machine, my band was SO pissed off.
I got my drum machine because I had heard this song ("Pass the Dutchie" by Musical Youth, 1982).
And I said to myself: "What is that? What kind of sound is that?" And they said: "That's what they call Dancehall Reggae." I asked what made it Dancehall Reggae, and they said: "It's a drum machine." That's why I went out and bought a drum machine and wrote Carly Simon's "Why."

Imagine this song without a drum machine! The song feels like it has got a backbeat and a groove. A drum machine sounds consistently the same way. I can't imagine a real drummer sounding that cool. It needed to be exactly the same timberal quality to become that hypnotic. And that was not the basis of the song, that was just an element.

Musical Youth
Pass the Dutchie

I understand that AI can achieve results that come close to what I was doing manually, without any machines involved.
And if the listener does not mind or even prefers that, I should not be the one to dictate that choice. People's tastes change, and who am I to say that if they like it—

YOU SHOULDN'T LIKE IT BECAUSE I DIDN'T PLAY IT?

If people like what I do with AI, how can anyone go back and tell people that they are wrong? It's just a matter of preference.

A lot of times, a song I wrote might not have even existed without technology behind it and new tools that fed into that.
Sly and the Family Stone did "Family Affair" with the Rhythm Ace or the Maestro Rhythm Boxes.
You can't imagine that song without those tools. They created a completely unique sound. A great example of technology helping to create a unique result.

Sly & the Family Stone
Family Affair

I am old-school, and I like my mistakes. I like trial and error. I like messing up, so I can fix it.
I wish, I got everything right the first time, but I never do. I don't really use AI in my work, so I am not sophisticated enough to talk about its limits or what it is lacking, but I can only imagine what it can do.
My whole career and all of my songs would have been very different, had I had the tools that people have today. What I had was a certain amount of intellectual knowledge that I wanted to impose on top of pop music, which at that time sounded very stagnant to me.

David Bowie used to say to me: "Nile, darling, I want it to be the same, but different."

But how do you give it a different vibe unless you have enough intellectual and musical knowledge to change it, without it sounding weird.

David Bowie
Let's Dance

To me, the definition of a true artist is someone whose art communicates to the souls of a million strangers.
What my teacher taught me is: Art allows you to touch the souls of millions and millions of people that you will never meet.

Live performances are always fun, always interesting, always intellectual, but also always physically challenging!
It might sound easy, but it's hard to play my guitar parts, even for me!
And now, that the songs have a life of their own, I sometimes change the nuances of a specific lick or riff. You might not hear the difference, but I am convinced that the listener will feel my excitement. That to me is the difference between performing and playing back.

A lot of the best DJs can read the audience and use the technological tools at their hands to bring out a different element to an unexpected and spontaneous performance—a response to what the audience feels, which is often surprising to them and establishes that very special 'live' feeling!

I love technology! But we all—myself included—need to step up our game.

In today's world, we are so much smarter, and at the same time dumber. Simultaneously, the tools available to us work so well, you really have to put in time to keep up with them and get the best outcome!
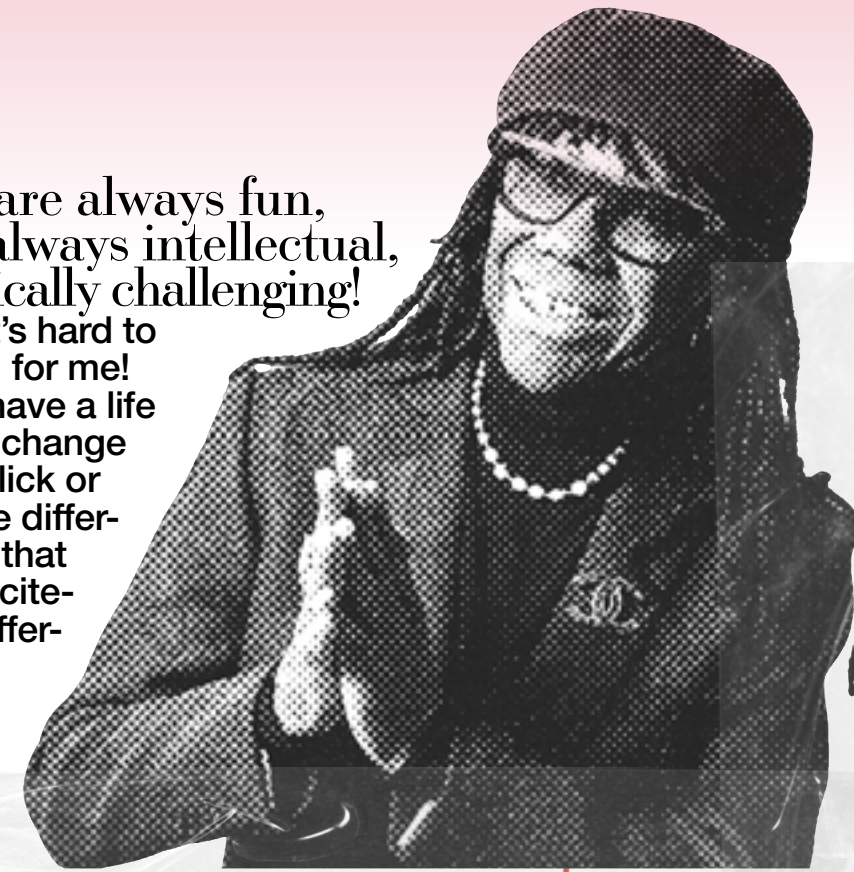
In the past, every time I made a record, I bought a brand-new piece of gear. There was no new record that did not have a brand-new piece of gear that we had to learn how to work.

> I could not have made Duran Duran's biggest record without this approach. I don't like to spend months doing records, and technology allowed me to translate my musical knowledge and ideas directly into sound.

Duran Duran
The Reflex

And then again, when I have the real horns do the bop on the chorus of "I Want Your Love"—if that bit were some synthesizer, it wouldn't sound cool, it would just be corny. But the fact that it's real guys playing makes the whole difference. Someone like Miles (Davis) would spot these details and go: "Man, that mxxxfxxxxxr is playing that one beat so great!"

Chic
I Want Your Love

When we did the Diana album in 1980, we looked at Diana Ross as a thoroughbred, and the concept was, if you have a thoroughbred, let her run!

Diana Ross
Tenderness

**I think DLD is the kind of place where you're going to get new ideas, you're going to ponder old ideas, see if they were the most effective, and make changes.
Life is all about change. As we get older, we get smarter. I think it's   our responsibility to change.**

In my heart, I feel that DLD is not only a very positive environment, but it's a stimulating one. Typically, when I do things of this nature, I always find it interesting. But this was a little bit more fun, too, because I didn't mind being myself, and I didn't mind making mistakes! ●

Reflected through the Eyes of **Nile Rodgers**
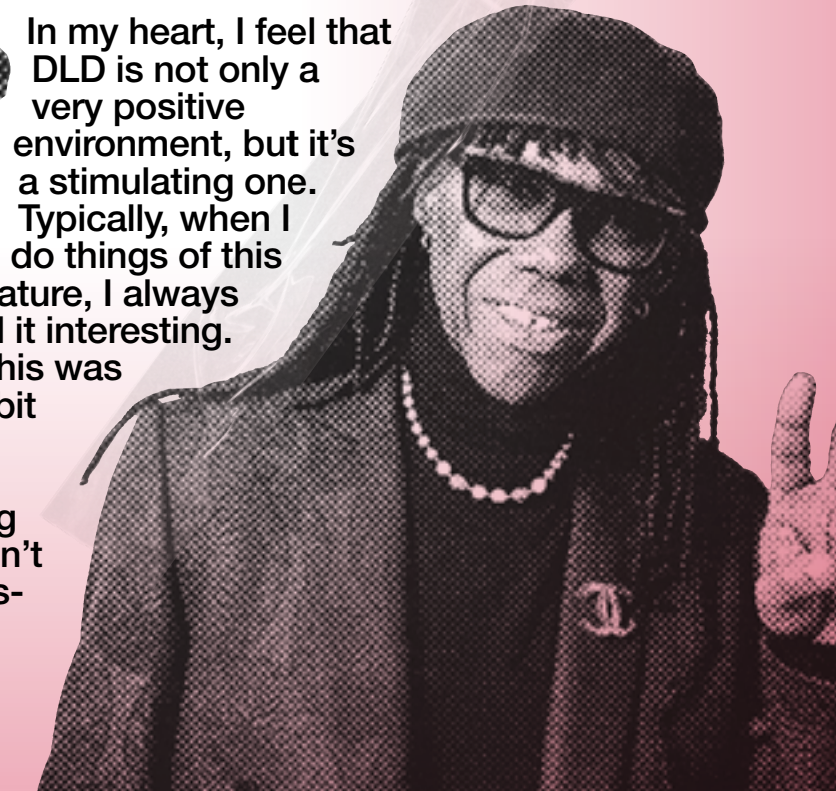
Take the DLD25 conversations home—a collection of DLD speakers' **bestselling books** worth a place on any shelf.

FROM DLD STAGE TO PAGE

RAJA RAJAMANNAR—Quantum Marketing: Mastering the New Marketing Mindset for Tomorrow's Consumers

ROMAN KRZNARIC—The Good Ancestor. How to Think Long Term in a Short-Term World

ANDREW MCAFEE—The Geek Way: The Radical Mindset that Drives Extraordinary Results

KENNETH CUKIER—Framers: Make Better Decisions in the Age of Big Data

ECE TEMELKURAN—TOGETHER: 10 CHOICES FOR A BETTER NOW

HANS ULRICH OBRIST—Life in Progress

GARY MARCUS—Taming Silicon Valley. How We Can Ensure That AI Works for Us

MARIETJE SCHAAKE—The Tech Coup: How to Save Democracy from Silicon Valley

MAJA GÖPEL—Werte. Ein Kompass für die Zukunft.

SANDRA MATZ—Mindmasters: The Data-Driven Science of Predicting and Changing Human Behavior

ERLING KAGGE—After the North Pole—A Story of Survival, Mythmaking, and Melting Ice

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Urgent, urgent.

WE LOVE YOU, HUO!

Hans Ulrich Obrist, Serpentine Galleries

Philippe Parreno
Leo Castañeda
Danielle Brathwaite-Shirley
Yinka Ilori
Carlo Ratti
Sasha Stiles
Holly Herndon
Mat Dryhurst
Irma Boom
Tanya Cruz
IX Shells
Hana Omori
Emily Segal
Refik Anadol
Gabriel Massan
Dmitri Cherniak
Alexander Kluge
Jota Mombaça
Shumon Basar
Rafael Rozendaal
Douglas Copeland
Hans Zimmer
Es Devlin
Gabriela Hearst
Eduardo Terrazas
Tau Lewis
Lina Atfah
Alex Israel
Andrew Durbin
Julien Creuzet
Sky Hopinka
Brian Eno
Manthia Diawara
Katharina Grosse
Precious Okoyomon
Samuel Ross
John Rafman
Daniel Birnbaum
Koo Jeong-A
Hito Steyerl
Jeremy Shaw
Elizabeth Diller
Igor Levit
Nora Khan
Francis Kéré
Walter Price
Anne Imhof
Rem Koolhaas
Jamian Juliano-Villani
Brian Belott
Billy Grant
Kasper König

Thomas Bayrle
Simon Denny
Flaka Haliti
Cory Arcangel
Angelo Plessas
Michael Craig-Martin
Simon Denny
Yuri Pattison
Timur Si-Qin
Julia Stoschek
Sasha Waltz
Isabel Lewis
Paulo Coelho
Peter Weibel
Ryan Trecartin
Aino Laberenz
Maja Hoffmann
John Maeda
Abdullah Al-Mutairi
Vvzela Qu
Zakara Raitt
Max Weisel
Amalia Ulman
Ou Ning
Michelangelo Pistoletto
Yoko Ono
Jamie Drummond
Ed Fornieles
Oliver Laric
Jon Nash
Tino Sehgal
Hubert Damisch
Cerith Wyn Evans
Tetsuo Kondo
Zaha Hadid
Norman Foster
Aaron Koblin
Eric Rodenberg
Anri Sala
Qui Zhijie
Thomas Demand
Piero Golia
Carsten Höller
Markus Miessen
John Brockman
Taryn Simon
Akram Zaatari
Ai Weiwei
Olafur Eliasson
Miltos Manetas
Pae White

2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025

Two HUO Decades of Artistic Vision at DLD★

Photo by Mark Cocksedge


Never Stop Dreaming!

Hans Ulrich Obrist, Serpentine Galleries

Your design is very much art for all. We can say you do design for all. It's for everyone. It goes to the people.
The public sphere is important. And you realized that the public sphere has lots of rules which said no to games. It said no to writing. It said no to many things.
You wanted to actually say yes to games. You wanted to say yes to playfulness and somehow create these public spaces in reality.

Yinka Ilori, Artist

For me, art is about trying to challenge the public space and democratize what play means to different people. I think, play is such an integral part of a child's upbringing, but it's also important for adults.
Adults don't play enough. We don't play enough. We don't dream enough.
So for me, it's about trying to tap into what a child experiences through play, for an adult to relive those childhood memories through design.

At DLD25, renowned artist **Yinka Ilori** sat down with **Hans Ulrich Obrist** to discuss his bold vision for public art, storytelling, and play. Ilori, known for his vibrant, narrative-driven designs, shared his journey from upcycling chairs to creating immersive public spaces that spark joy and community engagement.
From Lego-inspired play spaces to AI-driven design tools, Ilori pushes boundaries, using technology and memory to shape experiences. His latest collaboration with Google brings an online playground to life, fostering creativity across cultures. Looking ahead, his dream project: a public sculpture park in London, open to all—because art, he believes, should always be accessible.
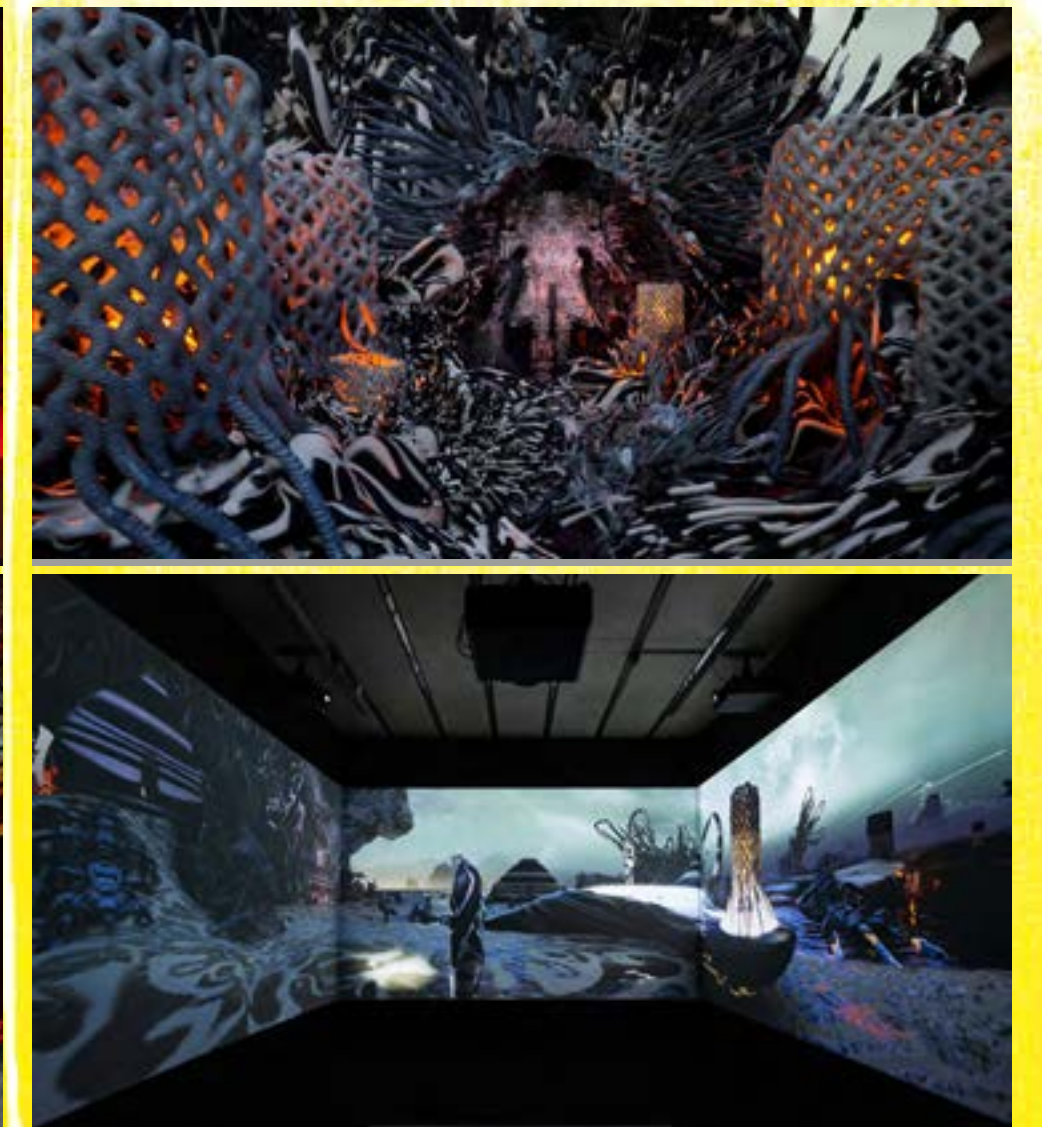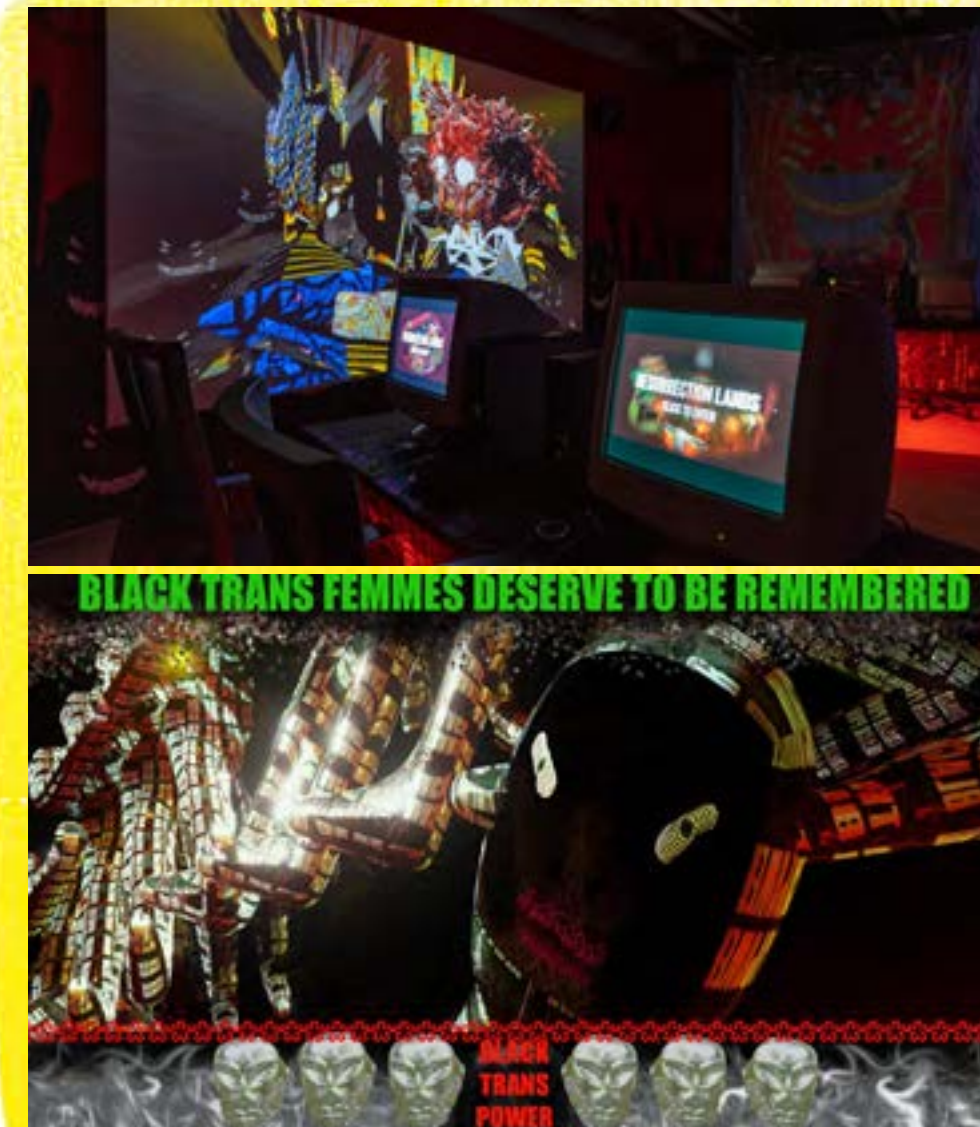
Game ON—Artists and Video Games

Hans Ulrich Obrist, Serpentine Galleries

Today, around 3 billion people interact one way or the other with video games. And when we go to artist studios, we see more and more artists actually working with this medium. Video games might be to the 21st century, what movies were to the 20th century, and maybe the novel to the 19th century. There are many different ways how actually artists engage with video games, sometimes with going into existing video games, sometimes by deconstructing existing video games. But most interestingly, of course, by building their own video games.

Danielle Brathwaite-Shirley, Artist

I want the art spaces to have more of a purpose.
What I'm working on right now is to try and figure out how to make a space usable to process emotion. So, you would come to the gallery with a particular emotion, it could be hate, hope, anger, and change the entire gallery to represent that emotion. So, everyone in the gallery will feel your hate, your anger, your hope, and then that could be terrifying.

Leo Castañeda, Artist

I'm interested in the embodiment of mythologies in video games and how, as game artists, we're able to create new mythologies to adapt to the future.

Curator **Hans Ulrich Obrist** explored the intersection of art and video games with artists **Danielle Brathwaite-Shirley** and **Leo Castañeda**.
Both artists share how they're pushing the boundaries of gaming as an artistic medium, drawing inspiration from pioneers like Rebecca Allen and early games that broke new ground in storytelling and social commentary.
Leo Castañeda presented his game "Camoflux: Levels & Bosses", a stealth exploration game where players navigate surreal landscapes influenced by Latin American surrealism and biomes from his childhood.
Danielle Brathwaite-Shirley discussed their work in creating interactive installations that process emotions and challenge traditional art space dynamics, emphasizing that the true artwork lies not in what's on screen but in the personal journey and choices made by participants.

Democratizing Visual Art Through Technology

By Chloë Ryan *Acrylic Robotics*

Bringing Quality, Original Paintings to the Masses

No artist can live on creativity alone.

You may be a genius, but you still need to eat. We all do. This means artists must find buyers for their work, connect with a market, and command fair prices.

Technology has brought great progress to many professions, including those that involve other art forms. But painters, to this day, typically work for an audience of one. They painstakingly create each masterpiece over days, weeks and months—only to sell the finished piece to a single buyer. And if the painting later rises in value, the owner benefits, not the artist.

Before I founded Acrylic Robotics, I was an artist myself. I would spend hours perfecting a single piece, sell it to one person, then move on to the next. At some point, after I had become an engineering student, I started to wonder: Shouldn't there be a better way?

Unique artworks—for the benefit of all

At Acrylic Robotics, we've managed to combine robotics and generative AI to produce gallery-quality paintings. Using our technology, an artist can deliver any given work of art—not a flat, lifeless print, but a vibrant, textured, acrylic painting on canvas—to as many buyers as they like.

Our robots use acrylic paints and a range of brush sizes and shapes on canvases as large as 120×150 cm (four by five feet). We've invented an automated painting unit cell that makes the production process efficient. We have markets lined up and more robots on order, and we are about to double our production space.

Suddenly, artists are able to multiply the income from a single creative work; and art lovers who would not normally be able to afford an original painting can now fulfill their dream of owning one.

Along the way, we are shifting the concept of art from an exclusive collector's item to a democratized cultural experience. In financial terms, we are disrupting both the fine art market—valued at $70 billion annually—and the $17 billion photoprint market.

To participate and use our technology, artists must first consent. Acrylic does not train on any artist's data without their knowledge. Artists who participate can expect credit and fair compensation. We have a waitlist of 500+ artists who are keen to give our innovative technology a try.

My vision from the outset was to help artists bypass the scarcity-driven gallery system. Today, our combination of AI, engineering, robotics, art, and ethics is bringing art to more public spaces and homes while ensuring that artists are paid properly for their work.

> The da Vincis and Rembrandts of today would have access to robots. Who knows what the combination of their human genius and artificial intelligence might produce?

> Acrylic Robotics are combining AI, engineering, robotics, art, and ethics to bring art to more spaces and ensure artists are paid properly—and disrupting a $70 billion fine art market and a $17 billion photoprint market along the way.

Some reassurance

Some people worry that AI will decimate jobs for artists and could perhaps kill off art altogether. To me, these fears are unsubstantiated. Artists are innovators by nature—they push boundaries, they conceive ideas, turning them into paintings, drawings, or sculptures in new ways, often with novel tools. These tools, arguably, are part of the creative process. Might AI change the nature of the art? Perhaps, but it also opens up a world of fresh opportunities for creators. AI can provide inspiration and help artists achieve their goals. It can allow artists to focus on vision rather than execution, and to customize their products for specific markets or buyers.

It's a little-known fact that many of the great European painters from the 16th to 19th centuries operated out of workshops where apprentices helped with production so the masters could complete large commissions more quickly.

That's the role I see for AI and robotics: assistants for creative human minds. I have no doubt that the Rembrandts and da Vincis of today will be thrilled to experiment with these exciting new tools. I can't wait to find out what the combination of their human genius and our AI will produce. ●

Chloë Ryan is an artist, robotics engineer, and creative technologist. She's the founder and CEO of Acrylic Robotics, a company based in Montreal, Quebec, Canada, whose robots can turn any image or idea into a visual art masterpiece with real brushstrokes. Chloë is part of the newly founded DLD20s initiative. It aims to empower the next generation by connecting young visionaries with the DLD community and fostering intergenerational exchange to spark innovation.

Goodbye, Words: How AI Is Quietly Replacing Human Language

About 100,000 years ago, our ancestors made a giant leap: They swapped grunts and gestures for words. Suddenly, they could share ideas, discuss dreams, make plans, and gossip. Language transformed humanity, paving the way for civilization, culture, and TikTok.

Now, we stand at the brink of another major leap, driven by large language models (LLMs). Most see them as tools for summarizing articles, translating languages, crafting song lyrics, or writing code. Yet they're far more: LLMs are replacing human language.

Many already use LLMs to turn messy notes full of mental shortcuts into polished emails. Recipients increasingly reverse the process, converting lengthy emails into brief summaries. Bullet points become essays, which become bullet points again. Importantly, these 'inputs' and 'outputs' often differ. You might type 'newspeak,' but your German friend sees 'Neusprech,' while someone unfamiliar with Orwell receives "a simplified language meant to limit critical thinking." As we rely more on LLMs, they learn to communicate optimally and personally, much like your private shorthand.

This convenience, however, means the elegant long-form essay becomes redundant. AI directly translates meaning from one person's shorthand to another's—no fancy wording needed. As we stop expressing thoughts clearly to others, we lose practice. Why spend hours reading when AI instantly summarizes, skipping familiar details and adding necessary context? If no one reads emails, articles, or books, why write them?

Another appeal of LLMs is their ability to accelerate communication.

Human-to-human sharing is slow and error-prone—like the game of Chinese whispers. Books, articles, and social media have shortened distances between people, but information remains difficult to find, especially when we don't know exactly what we're looking for. In contrast, an LLM connects millions instantly. Why search the web, read books, or scroll Twitter when AI provides direct, relevant information straight from the source? LLMs will become central hubs of all human knowledge.

You might think this sounds fantastic—and you'd be right. LLMs promise faster, clearer communication, bridging gaps between languages and even between humans and machines. AI won't just translate English to Mandarin; it'll chat with your fridge and microwave, too. We'll teach the AI, and it'll teach us, inform us, boost our efficiency, and enhance creativity.

Of course, human language won't vanish entirely. We'll still use words, especially in personal interactions. We haven't abandoned gestures, expressions, or vocalizations after adopting language—they remain essential.

Yet the shift toward AI-driven communication carries significant risks. We'll gradually lose our ability to communicate well, abandoning traditional communication channels like emails, social media, news, and books. This star-shaped communication network—with a few all-knowing LLMs at its center—will grant enormous power to a handful of companies or governments controlling them. Creating Orwellian 'newspeak' to control people is difficult, but centralized AI could be easily set to convey approved ideas and censor others. ●

By Michal Kosinski
Stanford University

Michal Kosinski, an Associate Professor at Stanford's Graduate School of Business, explores the converging worlds of human and artificial cognition. His research delves into the psychological workings of Large Language Models while also leveraging AI, Machine Learning, and Big Data to model and predict human behavior.
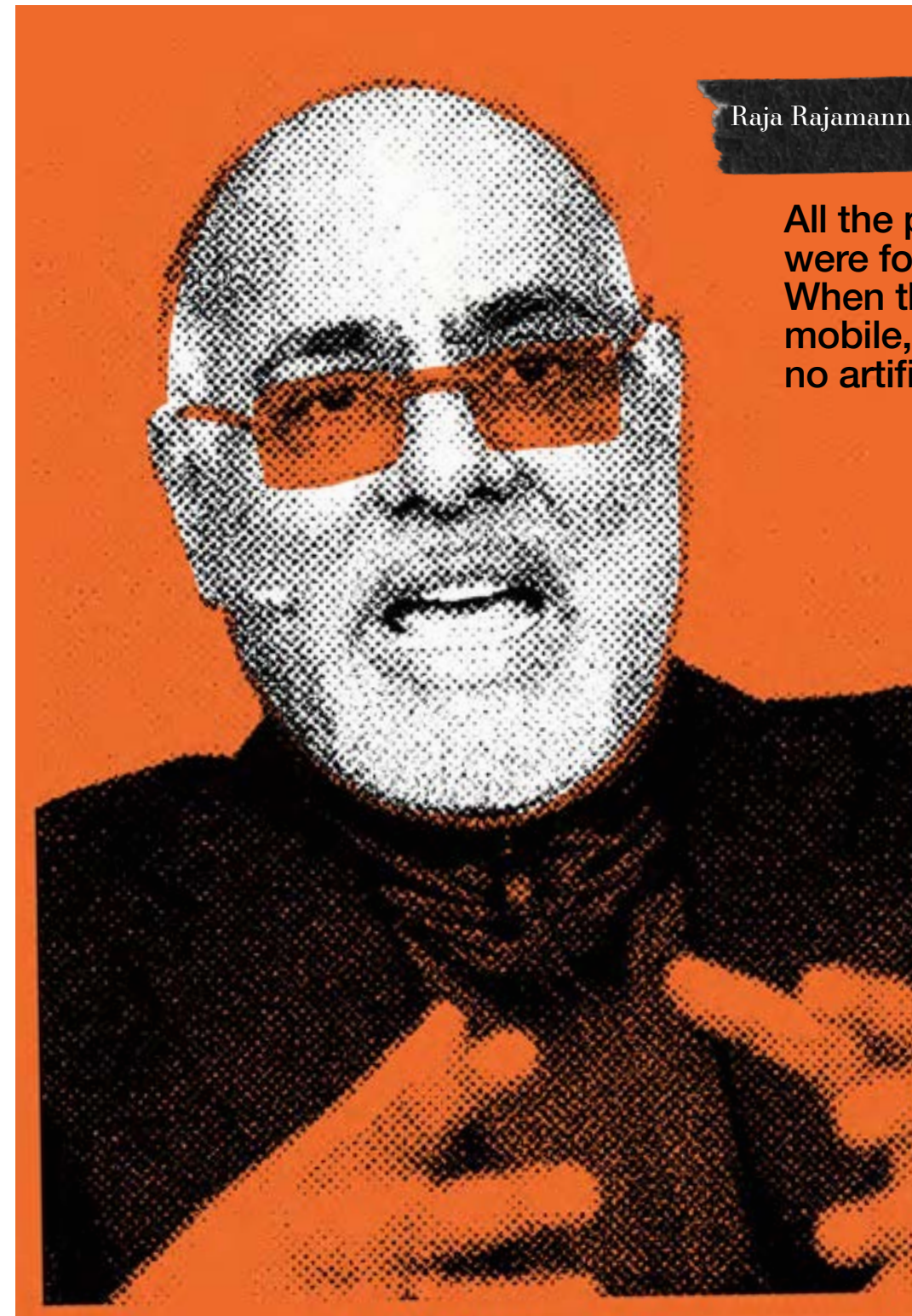
Raja Rajamannar, Mastercard

All the principles and theories of marketing were formulated about 50 to 60 years back. When there was no Internet, there was no mobile, there was no social media, there was no artificial intelligence.

The reality is, we need to relook and reinvent every single theory and framework,

which is what I tried to capture, and put it in my book called Quantum Marketing.

Quantum Marketing: Marketing Reimagined

Diane Brady, Fortune

Talking about privacy and data: If you say the term "I'm from the government, and I'm here to help," that is not a good thing in the U.S. Whereas we would sell our children's Social Security numbers for a seat upgrade.
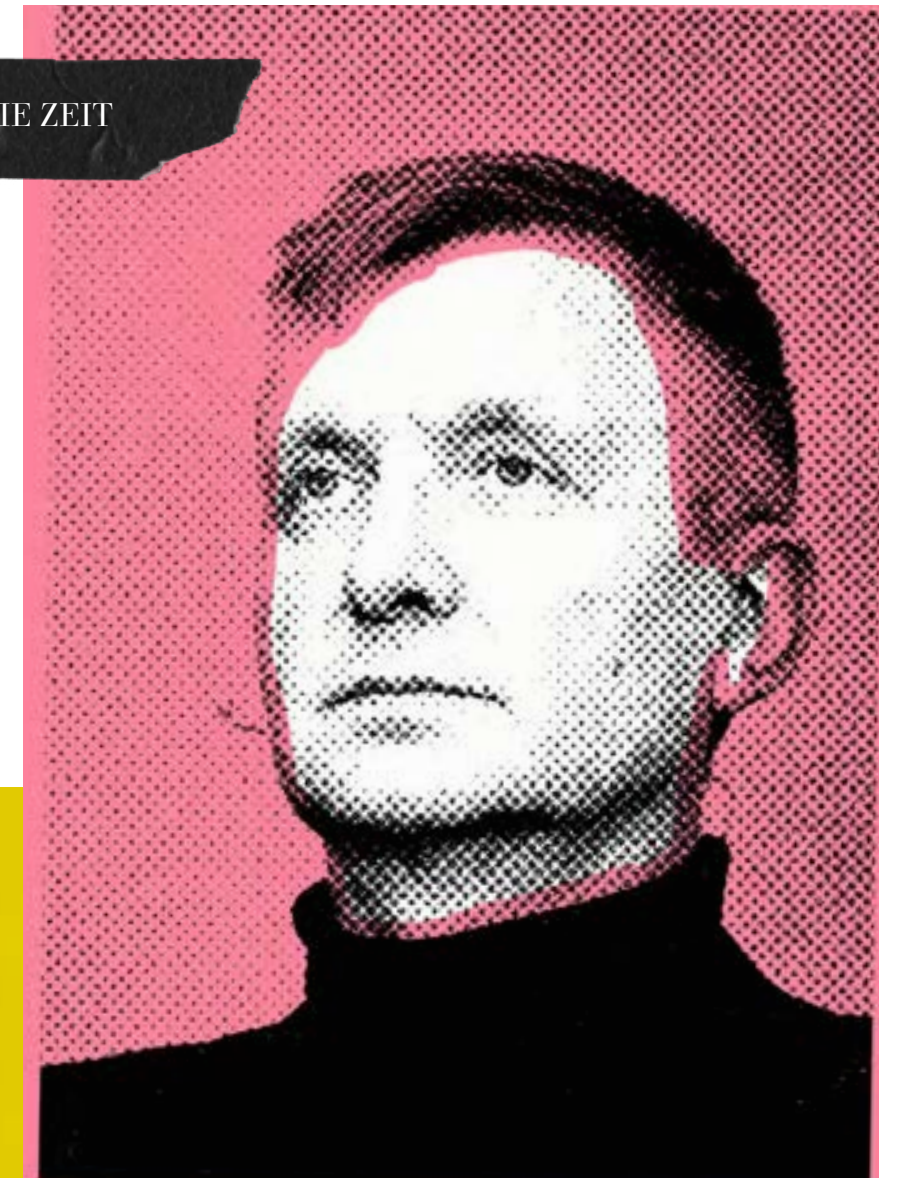
...that is the mindset in the U.S..

The AI Threat to Content Creators and the Web, and What We Can Do About It

Jochen Wegner, DIE ZEIT

Will we earn money with our content in an AI age? Be paid by AI companies, for example?

Matthew Prince, Cloudflare

The reason it has to work out is:

AI doesn't work if there isn't original content.

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Ihr Ansprechpartner
Christian Janas

christian.janas@dje.de

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