



# nexxworks

## Pulse

Breakout trends  
to keep an eye on  
in 2023

Image generated by **Stable Diffusion**

The prompt for this image was:  
"vector lines future"

**nexxworks**

WRITTEN BY

**Laurence Van Elegem**

Content Director at nexxworks



At the beginning of this brand-new year, I've tried to make sense of what we've been experiencing for the past year in these 5 domains:

1. **The world**
2. **The individual**
3. **Business**
4. **Technology**
5. **Work**

What perhaps struck me the most is that many of our old structures and approaches seem broken and that we're experiencing a massive identity crisis in several domains. So many individuals and companies are struggling with so many questions. What does our job mean to us? How can we keep employees engaged and fulfilled, but also productive? Should we value growth above our environment? Is China friend or foe? How can we find joy again? Which technologies are hype, which are disruptive? Will AI take our jobs? How can we find other sources of energy?

But questions are good, we just need to become more comfortable with not always being able to find the right answer (right away). It's great that we are revisiting old standards. Yes, these are difficult times, with multiple crises haunting us, but it gives me hope that they are pushing change in a good way. Urging us to regard customers as people, instead of sources of revenue. Driving us to revisit our business models and offerings in order to solve problems, not create them. Realizing that the world comes first and that we're just the supporting actor.

There is a lot of opportunity there, but we will also need to redefine that concept of opportunity. Endless growth is not possible on a limited planet. We are now suffering the consequences of that in multiple areas, and we must redefine our systems accordingly.

But I really feel hopeful that we will (if only because there is no ignoring a burning platform). This could be an inflection point that drives us to a better world. A world in which nature and the environment comes first, society second, the individual third and companies last, each of them supporting the former. The past years have been sparked by fear (decoupling, energy shortages, wars, a pandemic etc. have made us anxious), let's aim for 2023 to be sparked by joy over new beginnings that were far overdue.

So here are my thoughts on the latest evolutions.

Enjoy! And may the network be with you.

Laurence



**nexxworks can help!**

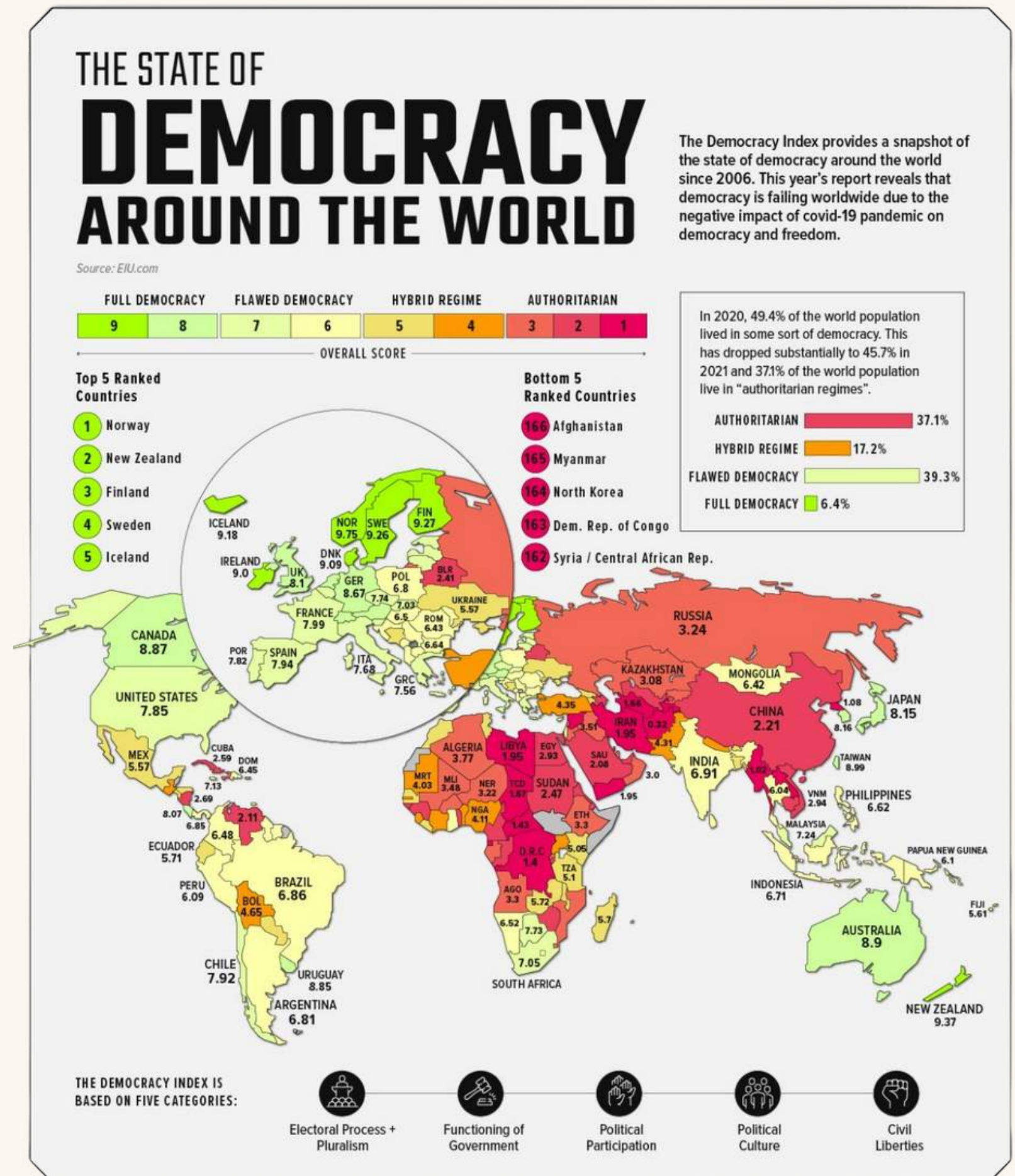
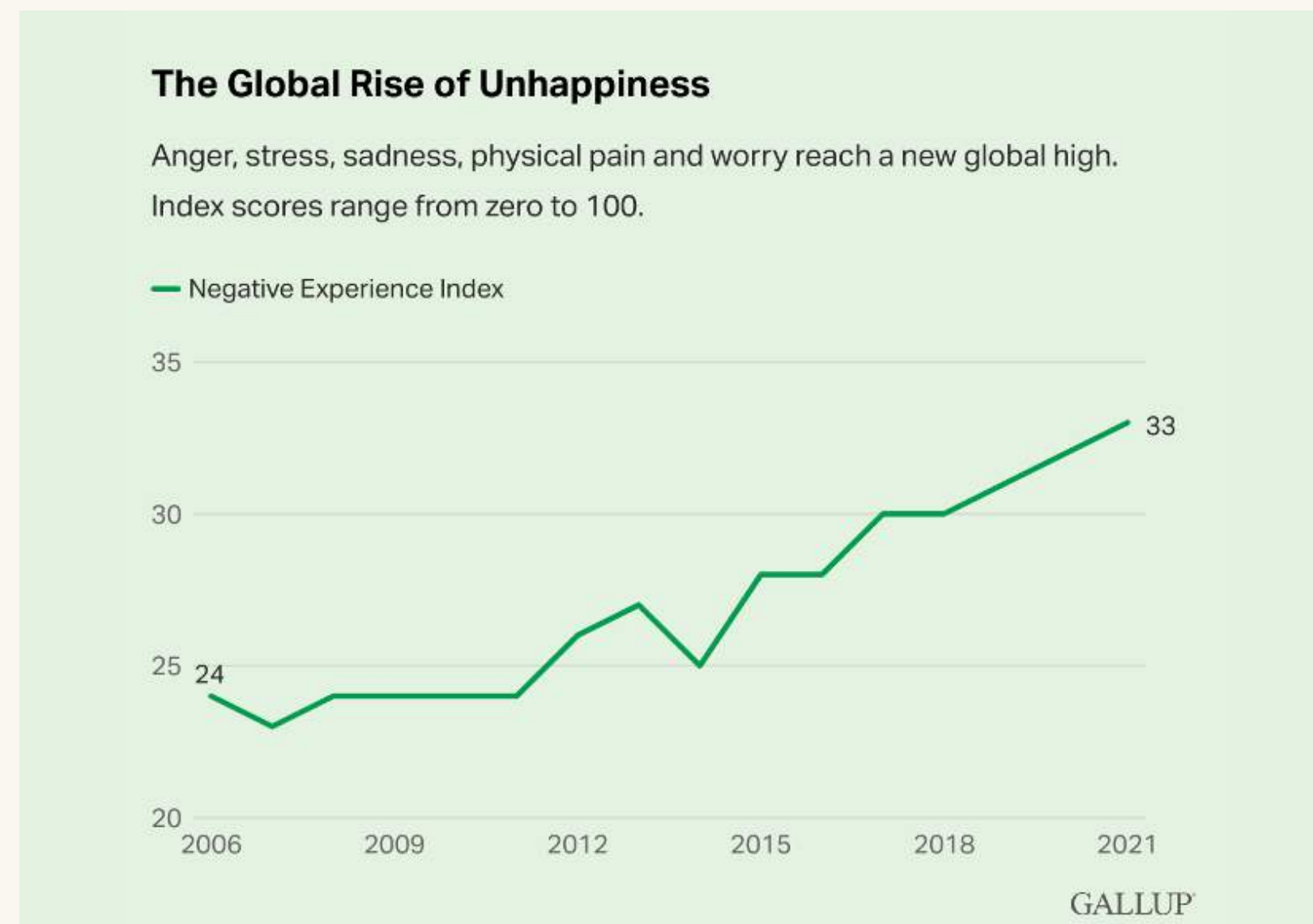
With all these trends and more, we are here to help. Discover our tailor-made services to really fine-tune your innovation efforts

**More info**

# A polycrisis and a permacrisis

Collins Dictionary elected “permacrisis” – “an extended period of instability and insecurity” - as its word of the year for 2022. And then there’s the term “polycrisis” which points to multiple crises at the same time. It has been around since about 2010 but has recently been popularized by historian and author Adam Tooze. Described that way – “multiple crises at the same time combined into an extended period of instability and insecurity” – it doesn’t really sound like a period you would want to live in. And we have plenty of crises to go around: the Russo-Ukrainian war, the aftereffects of the pandemic, rising inequality, an energy crisis, a climate crisis, several geopolitical crises, etc.

No surprise, perhaps, that global unhappiness is on the rise or that the state of democracy is at its lowest point since the Democracy Index report began measuring in 2006.



But, as Frederik Anseel pointed out in our latest trend e-book [Troublemakers](#) (You should definitely read that. It’s free, and has contributions from Frederik, Dave Snowden, Peter Hinssen, Steven Van Belleghem, Rik Vera, Ken Hughes and many more!), we should also not let our brains fool us into thinking that these are uniquely difficult times.

And he's right, of course. Imagine having lived through The Great War (WWI) as a kid, only to experience the Spanish Flu pandemic in 1918, the most devastating epidemic in recorded world history. More people died of influenza in a single year than during the four years the Black Death Bubonic Plague which wreaked havoc from 1347 to 1351, with a total death count of between 20 and 40 million people. Then you had about two decades of being lulled into believing that all was right, only to be hit with WWII. Not the best life, right?

That being said, it's not because our period is not unique that it's not challenging. And, a big difference with the other periods is that mankind has now triggered climate change, which is truly devastating for certain (often poorer) regions and will become more so for an increasing number of regions. It is true, mankind has experienced and even triggered climate change - like ice ages - before, but this is the first time that humanity has caused an episode of which the impact is so huge and increasing so fast.

## The elephant in the room: climate change

### Climate inequality

A significant and growing part of the current instability can be traced back to climate change. The countries hit hardest by it are low-income countries Afghanistan, Bangladesh, Chad, Haiti, Kenya, Malawi, Niger and Pakistan. And while countries like Japan and Germany often top the rankings of countries most affected by climate change, these types of higher-income countries have a lot more resources to deal with it than the former.

Only recently, for instance, the chief economist at the African Development Bank (AfDB) released a statement saying the continent has been losing up to 15% of its per capita economic growth due to the effects of climate change and that it is thus facing a gaping climate finance shortfall.

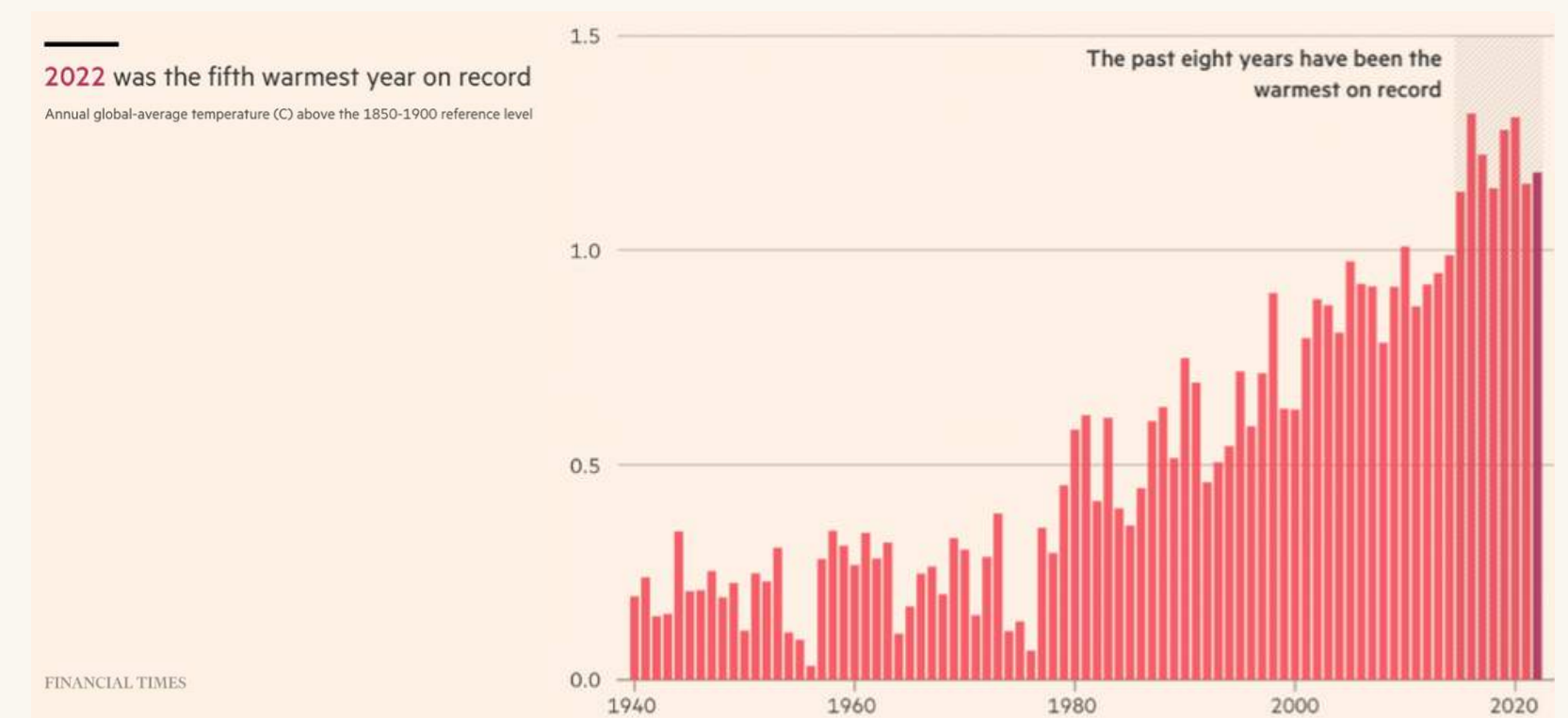
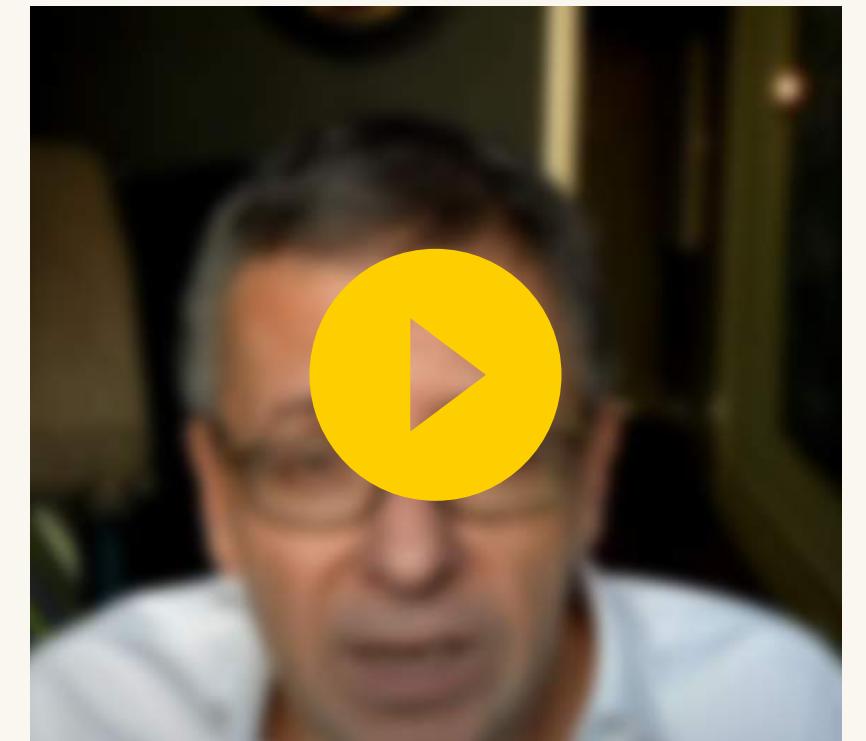
African nations received around \$18.3 billion in climate finance between 2016 and 2019, but they are also staring down a nearly \$1.3 trillion climate finance gap for the 2020 to 2030 period.

This climate inequality is a true minefield and will be sure to trigger massive climate migration to less affected places. COP27 did result in a "historic agreement" to repay the poorer countries but this remains so far only a political statement, without any concrete financial commitment.

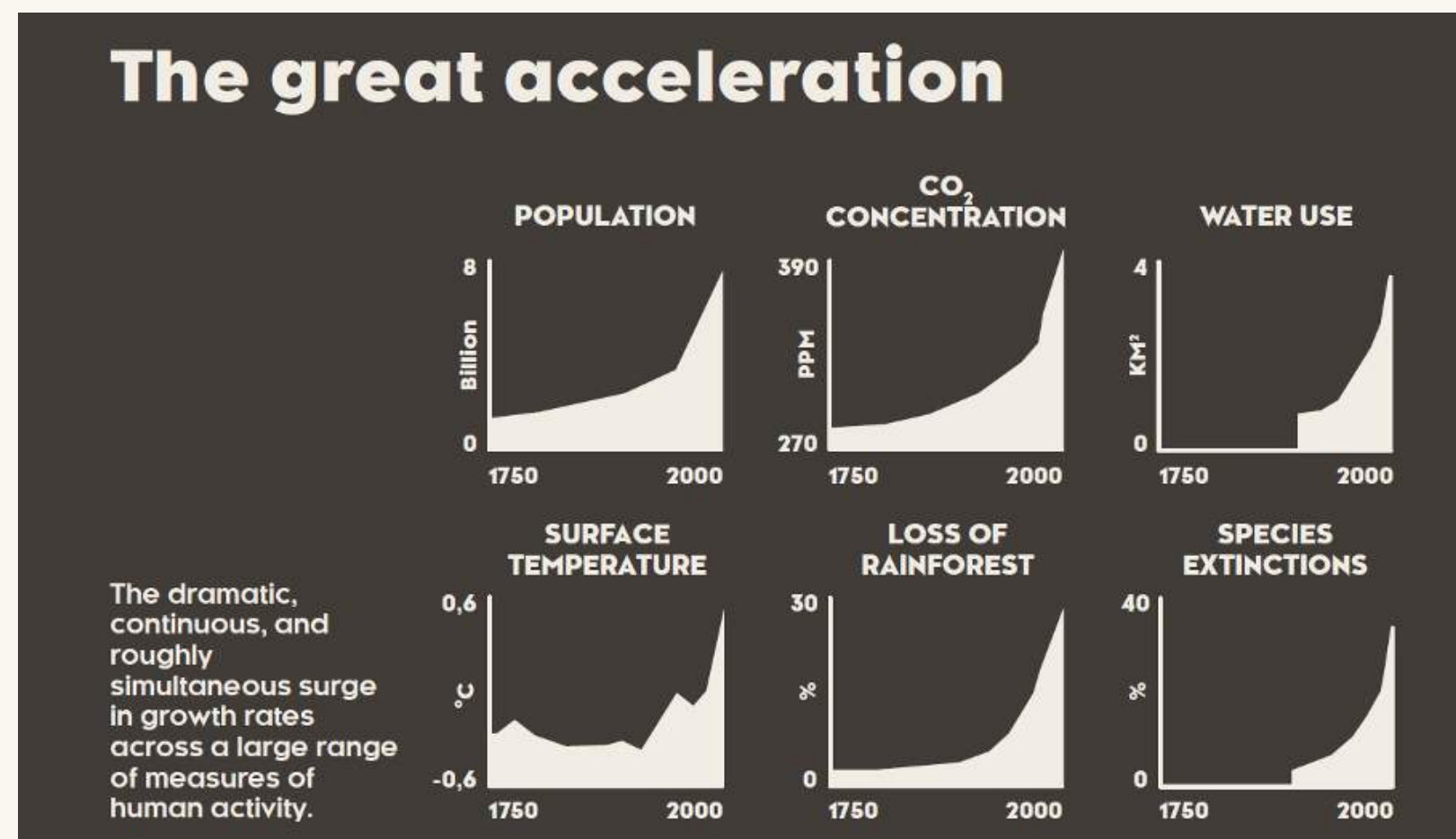
**Watch political scientist and risk expert Ian Bremmer's take on that here:**

On the other hand, climate change will discriminate no one when it increases. The record-breaking temperatures that roasted Europe in the summer of 2022 (which was the fifth warmest year on record) are expected to become the norm by

2035, which will likely see millions of people displaced by wildfires, flash floods, and storm damage.



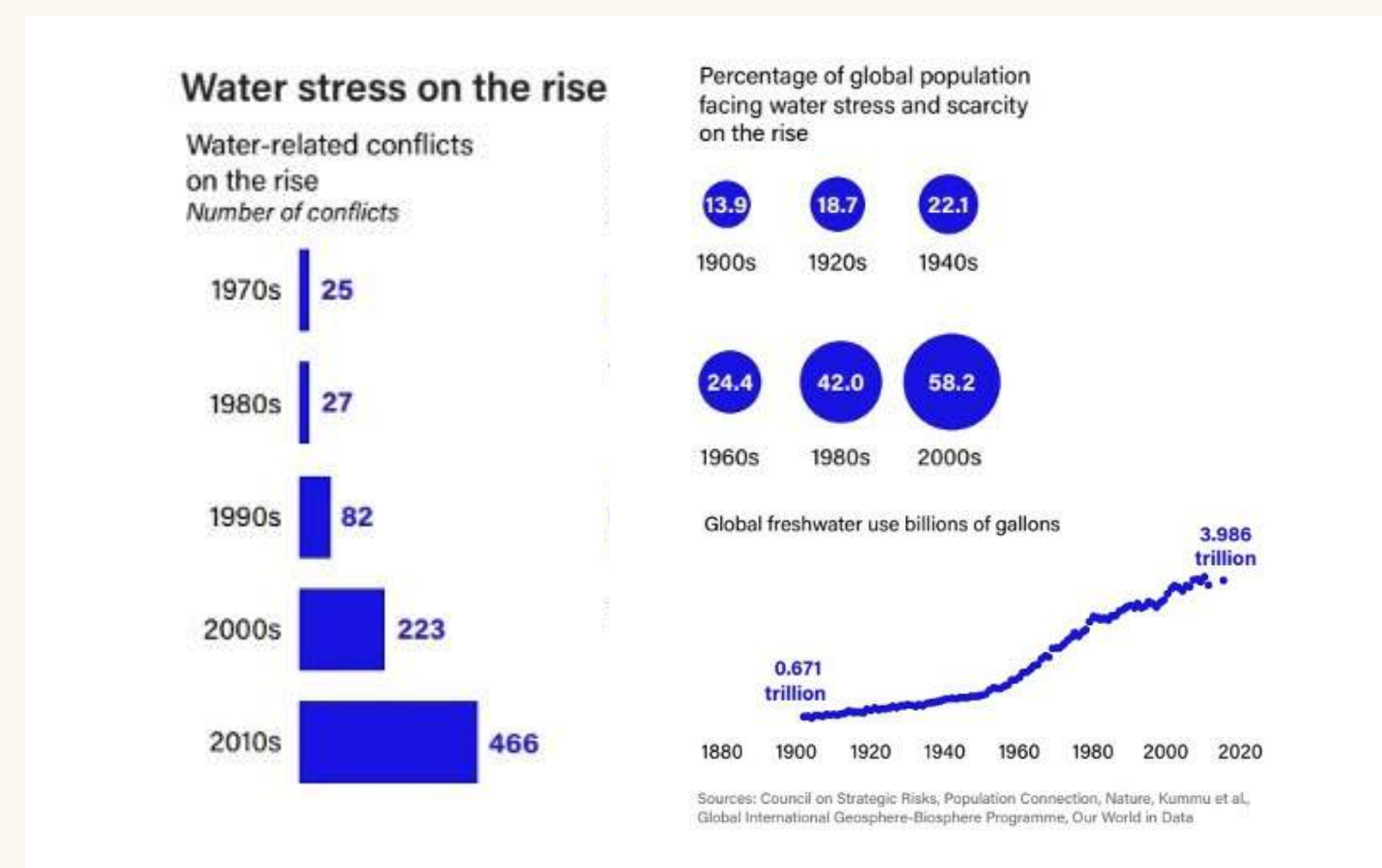
And if you need to visualize our growing impact on the world in what some call the Anthropocene, here's a crystal clear visual. In fact "[geologists might soon decide](#) which spot on Earth marks the first clear evidence of the Anthropocene — which many of them think is a new geological epoch that began when humans started altering the planet with various forms of industrial and radioactive materials in the 1950s".



On top of the human suffering, the consequences of climate change on the economy and on companies have also truly become palpable. The U.S., for instance, has sustained 338 weather and climate disasters since 1980 where overall damages and costs reached or exceeded \$1 billion (including CPI adjustment to 2022). The total cost of these 338 events, over 40 years, exceeds \$2.295 trillion. And let's not forget about the Chinese factories that had to shut down this summer because of the drought (hydropower generation in China was affected as water levels behind dams were hit) or how shipping was affected in the German Rhine River of which the levels were at an all-time low. Water scarcity also forced the United States to limit water releases in western states.

In fact, according to the Eurasia Group, "water stress" will continue to rise in 2023, becoming "a global and systemic challenge while governments will

still treat it as a temporary crisis". On top of the water problems described above, "water scarcity forced the United States to limit water releases in western states and triggered social unrest in Latin America, heightening tensions between corporations and communities. Forecasts for 2023 are worse. Water stress will become the new normal: river levels will fall to new lows, and two-thirds of companies globally will face substantial water risks to their operations or supply chain."



## Is your company ready for the new, better world?

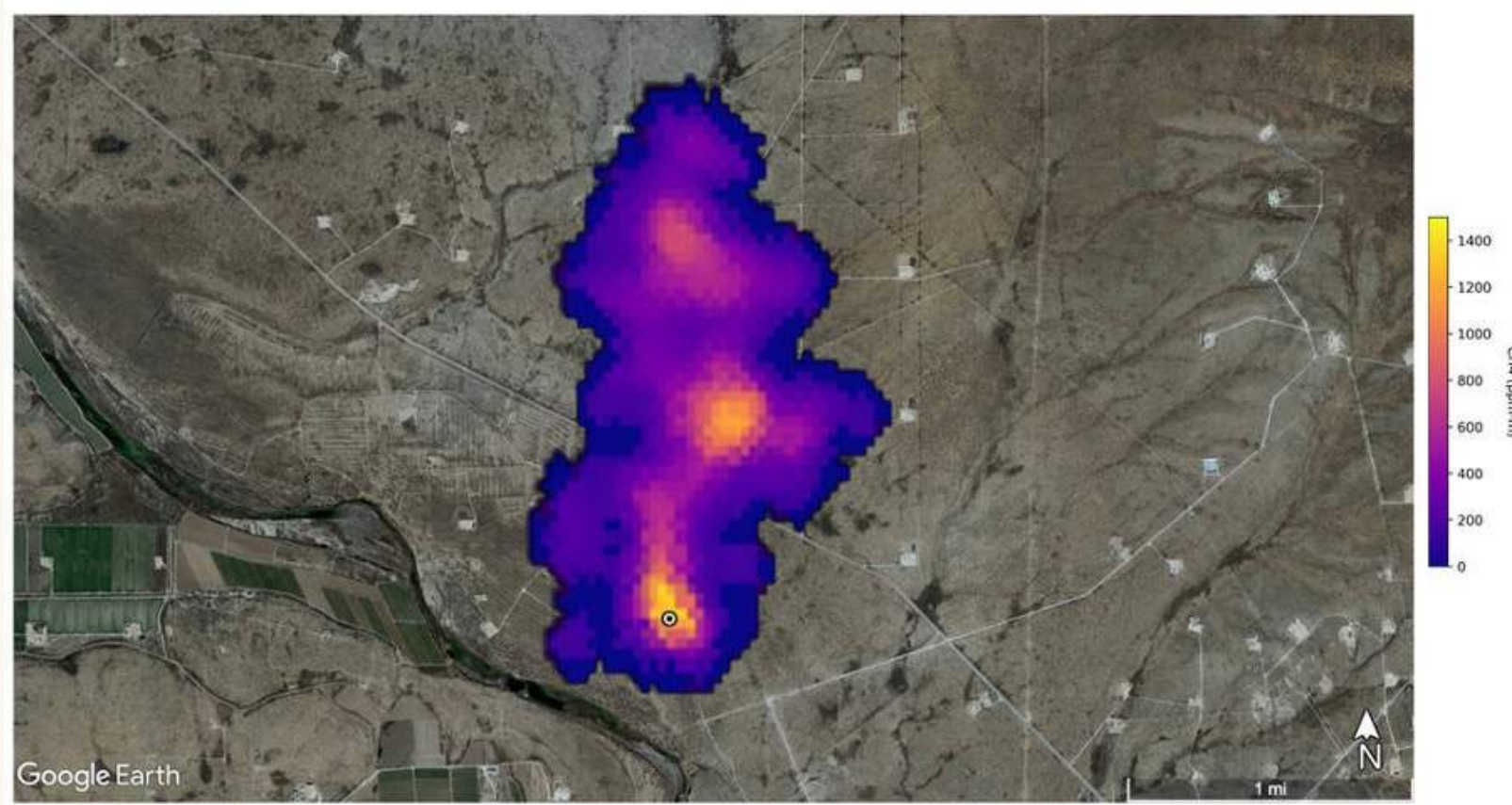
Join us on the **Positive Impact Tour (ESG) to Copenhagen together with Ynzo Van Zanten**, ex-Head of People & Culture at Tony's Chocolonely and keynote speaker.



[More info](#)

## Full transparency

Soon, companies will no longer be able to hide their impact. NASA's New Earth Space Mission, for instance, has identified more than 50 "super-emitters" in Central Asia, the Middle East, and the Southwestern United States. Super-emitters are facilities, equipment, and other infrastructure, typically in the fossil-fuel, waste, or agriculture sectors, that emit methane at high rates.



*This image shows a methane plume 2 miles (3 kilometers) long that NASA's Earth Surface Mineral Dust Source Investigation mission detected southeast of Carlsbad, New Mexico. Methane is a potent greenhouse gas that is much more effective at trapping heat in the atmosphere than carbon dioxide. - Credits: NASA/JPL-Caltech*

## Nature as a person

One very interesting way to protect the natural world, is by treating rivers, animals or trees as a person, by offering them equal rights and changing their status from legal objects to legal subjects. In New Zealand, the Whanganui river was granted personhood, meaning it can now sue those who pollute it. Bangladesh declared all its rivers should be treated as people.

In Florida, a swamp, two streams and two lakes have taken a project developer and the government to court. A few months ago, the Spanish Senate approved the law to offer legal personality to the inland sea Mar Menor which then became the first ecosystem in Europe with its own legal personality.

As a side note, I'm always reminded of animism - used in anthropology of religion as a term for the belief system of many Indigenous peoples - when I read things like these. "Animism encompasses the beliefs that all material phenomena have agency, that there exists no categorical distinction between the spiritual and physical world, and that soul, spirit, or sentience exists not only in humans, but also in other animals, plants, rocks, geographic features such as mountains and rivers, and other entities of the natural environment." You could say that the animists were ahead of their time in some ways.

I also believe that offering legal personality to objects, by making them subjects also offers some interesting prospects for AI, but in a different way. One day AI could become sentient and we then might have to protect their rights. But before that we'll also be confronted with the liability of AI systems that are responsible for an increased amount of significant decisions. This could become especially interesting if we would at one point "include schemes that can support digital identities for people, for organizations, for bots, for... well, things", as suggested by David Birch. "Your car needs a digital identity just as much as you do."

## Nature as an owner

Perhaps the biggest ESG-related news of last year was how billionaire Yvon Chouinard and his family transferred their ownership of Patagonia - worth \$3 billion - to the newly created Patagonia Purpose Trust and nonprofit Holdfast Collective. Both will ensure that all of Patagonia's profits go toward combating the climate crisis and protecting undeveloped land across the world. Depending on the health of the business, Patagonia expects to generate and donate roughly \$100 million in profits annually.

In some ways, you could say that nature has become the new owner of Patagonia which is a really interesting evolution, especially combined with the legal personhood trend described above.

Above all, I find it fascinating how the window of the acceptable always keeps shifting – just imagine telling someone from the 1920s that a river would acquire personhood - and how we seem to embrace completely novel forms of identity in the process. Though the concept of the Overton window is usually applied to political discourse, it is something that is applicable in many layers of society.

I mention it because humans have the tendency to view “the acceptable” of their own times as a universal truth, which it definitely isn't. Women voting was at one point unacceptable. Mixed marriages too. Showing your ankles, even. But these are pretty much standard now in most regions. Just like that, constructs that we regard as almost holy today, may one day shift places in the Overton window. Many refuse to even consider the concept of degrowth, claiming that it is unacceptable and unrealistic.

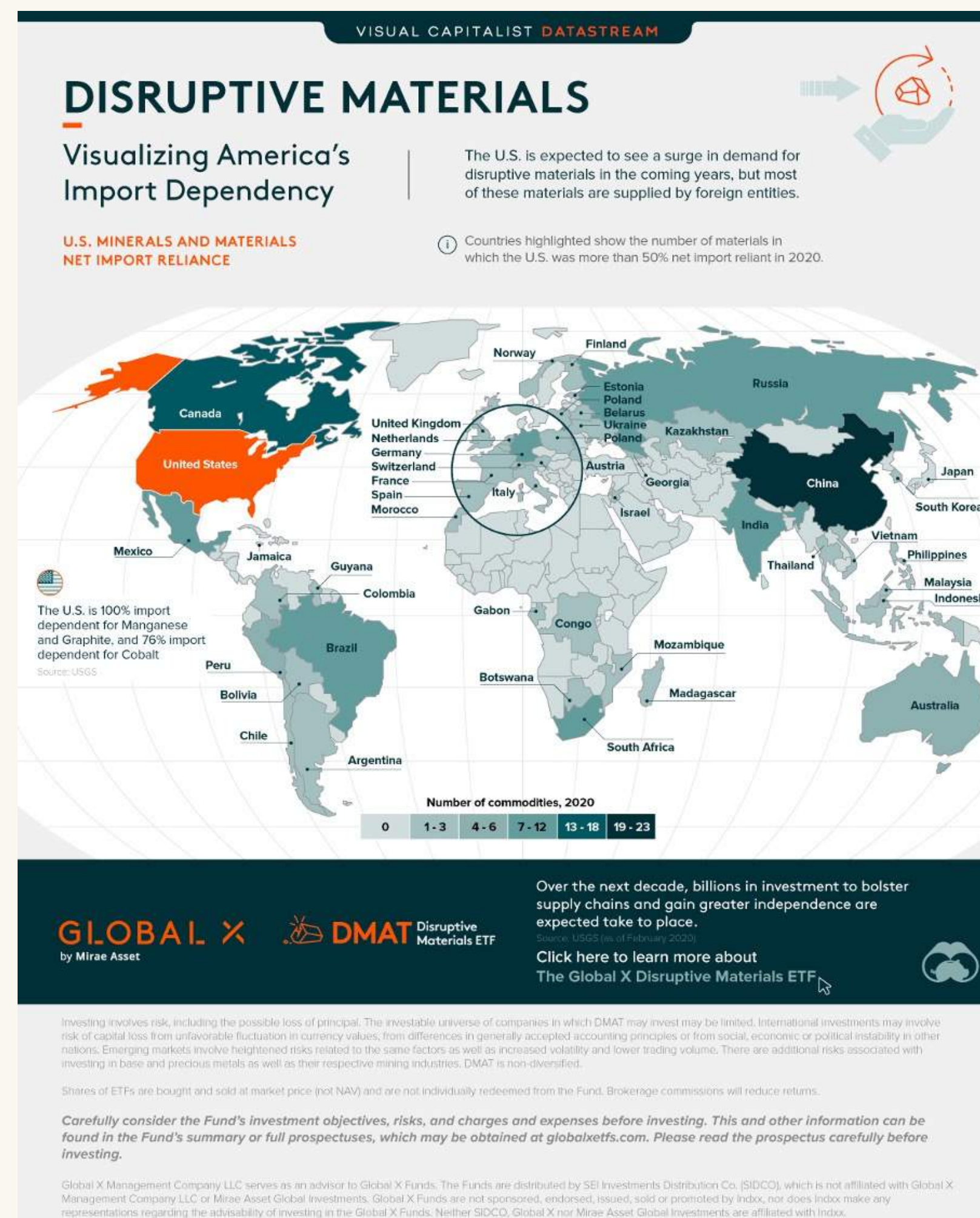


But we may not have a choice at some point. Just remember that many of your beliefs are constructs - or stories as Harari would say - that are acceptable and sometimes even relevant at one time, but may become relics at one point. To accept that is the brave and wise thing to do.

## Deglobalization & decoupling

Another dynamic contributing to the current instability of the world is the highly volatile dance of attraction and repulsion between world powers, their allies and enemies. The fact that many of these countries are deeply connected in economic ways makes the problem all the more complex.

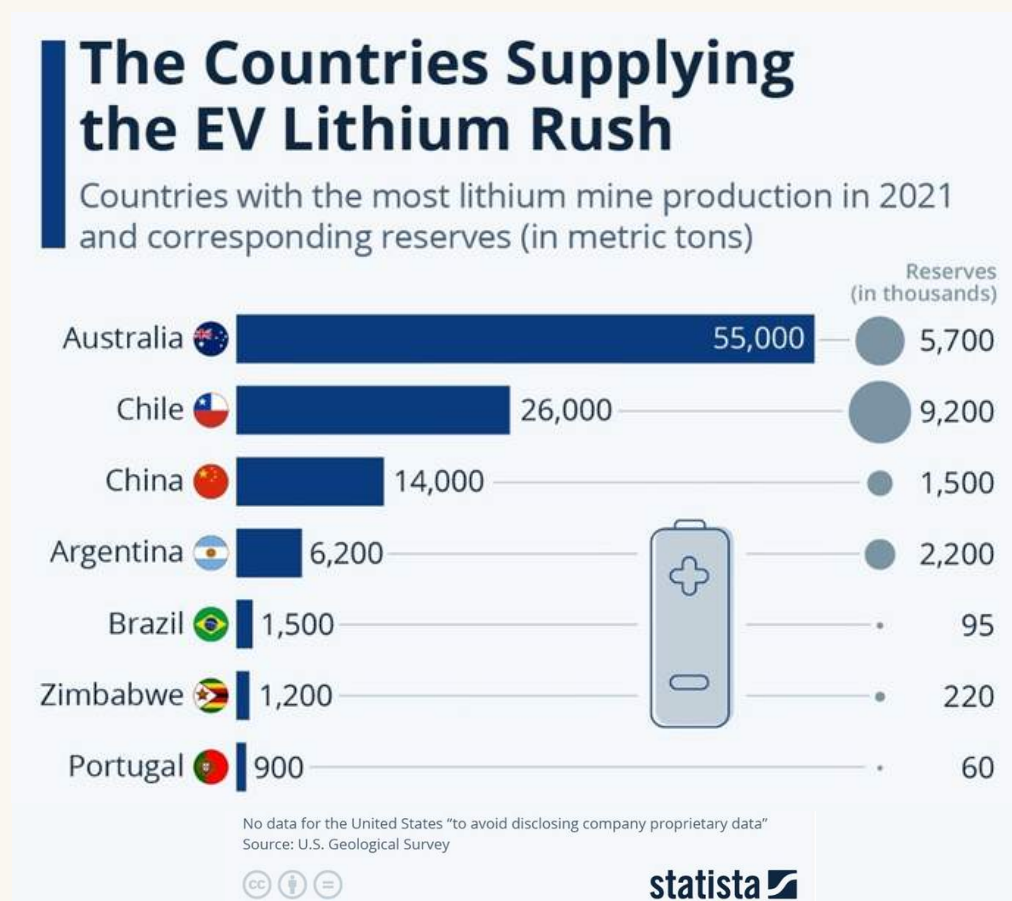
The US for instance, is highly dependent on disruptive materials from other countries, like China with which it has a very fragile relationship:



We saw this dynamic in previous years, but 2022 has triggered even more decoupling and deglobalization than before. The CHIPS and Science Act was perhaps the most visible, allocating about \$50 billion to bring semiconductor manufacturing back to the U.S. and away from East Asia where most chips are currently made. But US citizens have also been [banned from working on Chinese chip development](#).

These decisions are believed to have a devastating effect on China, but for the past 2 to 3 years, it had already embarked on an all-out effort to build a domestic chip industry that can rival that of the U.S. and its East Asian allies (Taiwan, South Korea, and Japan). This might allow it to achieve its goal of self-sufficiency more quickly than Americans expect. On top of that US companies like Nvidia and AMD can no longer export certain artificial intelligence chips to China, which also damages these companies, of course.

US car manufacturers were also kindly “suggested” to move more of their lithium-ion battery supply chain out of China. Tesla, for instance, is planning to build a lithium refining factory in Texas. Here too, we can find China is in the top 3 of Lithium suppliers, together with Chile and Australia.



We've seen many tech companies (partly) shifting their manufacturing supply chains away from China. When they stay in China, but diversify into other countries at the same time, that's called the China Plus One strategy, also known as Plus One or C+1.

Apple for instance, has been working on shifting more production out of China, especially to Vietnam (25%) and India. Although it is so bound to China - most of the components of the iPhone are made there - and the quality of its manufacturing that it will probably not leave entirely any time soon. In fact, Luxshare has for instance very recently won a contract to produce iPhones in China at the expense of Foxconn (also Chinese).

Asian countries have also been looking to the rest of the world for shifting production. Taiwanese battery maker ProLogium Technology Co, for instance, has shortlisted four European countries - France, Germany, Poland and the United Kingdom - for an \$8 billion solid-state lithium battery plant. Taiwan Semiconductor Manufacturing Company, the world's largest chipmaker, announced that it would more than triple its planned investment in a new US plant to \$40 billion – one of the largest foreign investments in US history. Hyundai Motor Group and SK On announced they will build a new battery manufacturing plant in the U.S. state of Georgia to supply the Korean automaker's U.S. assembly plants.

At the same time, we also see countries enforcing new or reinforcing old bonds with allies. US President Joe Biden recently hosted dozens of African heads of state and government at the White House for the three-day US-Africa Leaders' Summit telling them that the US can be trusted a lot more than China or Russia, which for years have been making inroads in Africa at the expense of America. Singapore and India have also announced that they will jointly research and develop technologies in AI, deep tech and the Internet of Things.

It's safe to say, as described by the World Economic Forum, that “the mounting geopolitical turmoil of recent years has profound implications for businesses across the world”, especially on their supply chains. In its [latest survey of Chief Economists](#), just over two thirds of respondents expected businesses to reconfigure their supply chains in line with new geopolitical fault lines over the next three years. Moreover, the global trends pushing in this direction are compounded by domestic political developments in many countries that are hostile to the deep global integration that has shaped international business models over a period of decades.”

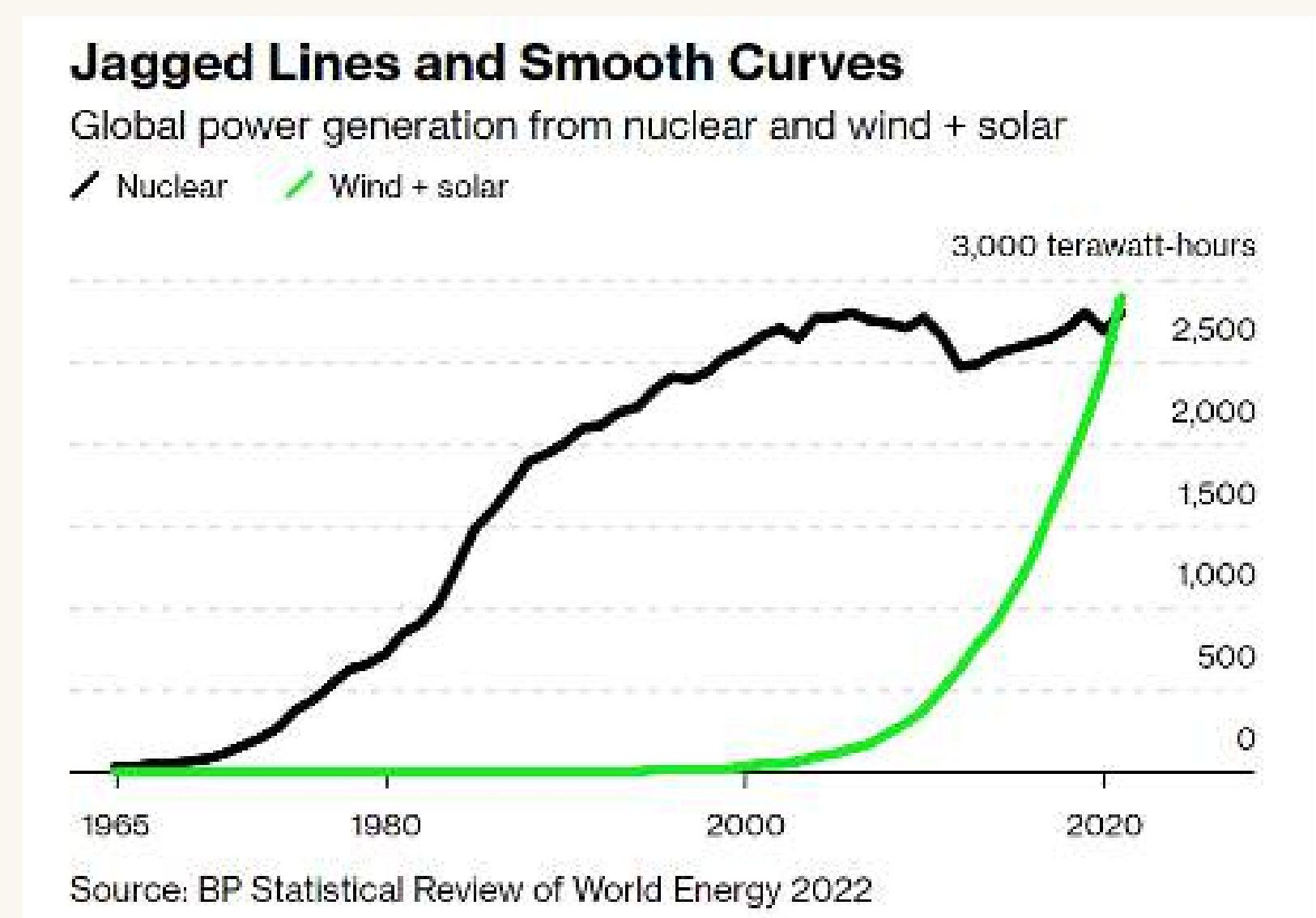


Perhaps interesting to add that MIT PhD student Hao Zhang recently found that firms linked by [supply chains — including those that cross borders — also share political goals](#). Industries are interconnected by production relationships which results in blurred interests.

## The quest for energy

One of the most important macro-trends of the moments has perhaps been the quest for new energy sources around the world. In some cases because the old sources - like coal, nuclear and oil – have disastrous effects on the environment, in others because of a shifting relationship with a supplier country like Russia, since its war in Ukraine.

There is good news too. For instance, combined wind and solar now generate more power than nuclear energy. While the exponential growth of wind + solar power generation is striking, nuclear generation did see a 4% boost in 2021 as China expanded its capacity:



Our unstable energy situation obviously has repercussions on companies as well. In September, 4 European telecoms said that “[mobile phones could go dark around Europe](#) this winter if power cuts or energy rationing knock out parts of the mobile networks across the region”. And some of Europe's biggest banks [are preparing back-up generators and to dim the lights](#) as they brace for potential power cuts and energy rationing that threaten the money system underpinning the region's economy.

The G7 have also announced they will [provide Vietnam with \\$15.5 billion](#) to help it transition away from coal and reach 47% renewable electricity generation by 2030. Similar deals have already been announced with Indonesia and South Africa, two other coal-intensive developing nations.

Perhaps a less encouraging trend is the return (if it ever was away) of nuclear energy, which is highly damaging for the environment and exceedingly water intensive. The U.S. Department of Energy recently announced a real breakthrough in fusion where researchers produced more energy from fusing atoms together than they used to start the process. Now, though nuclear fusion is said to be less dangerous and damaging than fission, it [would still struggle with](#) radiation damage to structures; radioactive waste and the need for biological shielding.

Also problematic is the “drying up” of some of the renewable energy sources, ironically caused by climate change. One example is the wind drought in Europe: for instance, in 2021, wind speeds were 15 percent slower in the UK than in previous years, making for [one of the least windy periods in nearly 60 years](#). Also, quite some Chinese factories depend on hydropower generation and several had to shut down because of the drought this summer which affected water levels behind dams. Perhaps not surprising then that [China's industry ministry issued a notice to promote and optimize the development of the country's photovoltaic industry](#).

### nexxworks can help!

Discover our tailor-made services to really fine-tune your innovation efforts

[More info](#)

Amidst all the complexity, instability and challenges described above, it's unsurprising that people all over the world are struggling.

### Where's the joy?

We should not forget that over the past 40 years or more, stability and rising prosperity have taken billions of the world's population up Maslow's hierarchy of needs. China, for instance, has lifted no less than 800 million people out of poverty since 1990.

But as they are sliding back down that pyramid, people are becoming increasingly anxious about concerns like food, heat, housing, losing their jobs to algorithms etc. In the 2022 Edelman trust barometer, for instance, 85% are worried about job loss and 75% worry about climate change. Reuters Institute's 2022 Digital News Report—a global survey of 46 markets across six continents—revealed: "Trust in the news has fallen in almost half the countries in our survey. A survey by the British Association for Counselling and Psychotherapy revealed that 66% of therapists said that the cost-of-living crisis is impacting people's mental health but, despite their increasing need for help, 47% reported patients canceling their sessions because they could no longer afford them.

The University of East Anglia recently launched a 'Mindfulness and Active Hope' course, to provide students with support and coping skills to help them transform their eco-anxiety into 'active hope'.

### Wellbeing inequality

As pointed out earlier, global unhappiness has been on the rise (since before Covid) and some believe that this is caused by "wellbeing inequality", a "growing divide between the haves and have-nots of a great life". Leaders understand income inequality - the growing divide between the financial haves and have-nots - but they are not familiar with the growing divide between the haves and have-nots of a great life. This is how Gallup describes [wellbeing inequality](#):

"You might think that income inequality explains wellbeing inequality and, therefore, rising unhappiness. That is certainly part of it. But a great life is more than just money. After studying the 20% of people who report having a great life, Gallup finds they have five things in common: They are fulfilled by their work, have little financial stress, live in great communities, have good physical health, and have loved ones they can turn to for help."

### Goblin mode

People are reacting in many ways to these feelings of stress and unhappiness. One is by going into "Goblin mode", the first Oxford word of the year to have been chosen by public vote:

"A type of behaviour which is chosen by the public as unapologetically self-indulgent, lazy, slovenly, or greedy, typically in a way that rejects social norms or expectations."

"Goblin mode really does speak to the times and the zeitgeist, and it is certainly a 2022 expression. People are looking at social norms in new ways. It gives people the license to ditch social norms and embrace new ones," said American linguist and lexicographer Ben Zimmer.

And we've seen this rebellion against social norms and expectations in several 'movements', with the 'Quiet Quitting' and the similar 'Lying Flat' (Tang Ping) movement in China" which has evolved into the 'Let It Rot' (Bai Lan) phenomenon which is even more extreme. People have become so tired and disillusioned that they have been giving up.

## Making space for joy

Brands have been actively picking up on this anxiety and disenchantment with products and services which in one way or other try to spark joy and happiness. The app 'Gas', for instance, has been a hit with US teens because it only allows them to say nice things about each other. Ironically, TikTok's newest trend document talks about "Making Space for Joy", "saying that 90% of its users said the platform makes them happy and never gets boring". While there has been a lot of controversy around the impact of social media on wellbeing. Though, it also must be said that we still know little about TikTok and its effects (compared to for instance Instagram).

CX expert and nexxworks partner Steven Van Belleghem has been writing and talking about the Top Gun Effect, reflecting people's need for plain and simple fun in these often troubling times:

Though it's understandable that brands tap into this social need, it's also crucial that we should not just look at unhappy people as unhappy consumers. We don't just need to make great products and services for them. We - companies, governments and society as a whole - should above all work on remediating what makes them unhappy: stressful work situations, climate change, a rising cost of living etc.



## The Great Cancellation

Amidst all the current turmoil, people have also been cutting back – and not just on engagement as described in the Goblin Mode paragraph. In a phenomenon dubbed the "Great Cancellation", consumers are [cutting back on non-essentials like media and subscription services](#) –

streaming and gym memberships - pausing contributions to pensions, and even abandoning health and life insurance policies. Recent studies in the UK suggest 5% have cancelled their home and contents insurance over the past 12 months, and 6% or 1 million households don't intend to renew in the coming year. One of the first expenses people drop will be their social activities, which could increase worldwide loneliness, [according to Accenture](#).

A growing number of people also seem to be wanting to spend less time online. BeReal, for instance allows users to take one photo a day and WeAre8 gives people eight minutes of scrolling time a day.

## Microcommunities

Completely in tune with the "less is more" trend are the microcommunities. As people are feeling increasingly let down by authorities (that aren't making progress on society's most urgent issues, like climate change and inequality) and are increasingly disgruntled with the Web2 social giants, smaller platforms, [micro-communities and subcultures](#) are experiencing a renaissance both online and IRL. According to Trend Watching, there is an opportunity here for brands to shift their attention away from the mainstream and the individual, and towards the fringe and the collective.

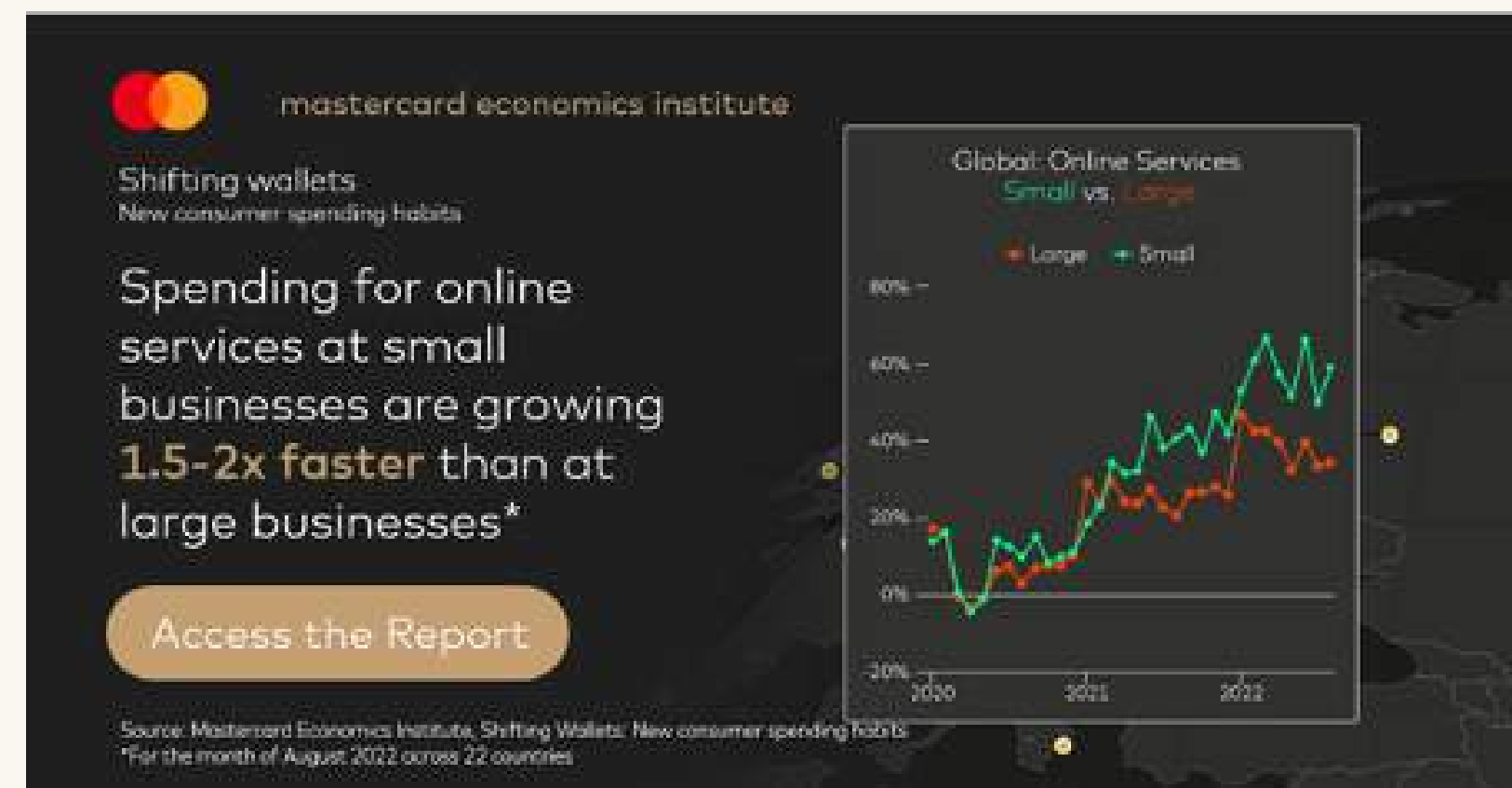
Sites like Discord, Twitch, Mastodon, Geneva, Substack and Patreon [emphasize community building in private spaces](#). [Niche](#), for instance is an ad-free, decentralized social media platform comprised of user owned communities. People are also looking for trust and bonds within self-governing and altruistic groups on platforms like Reddit, or through authentic recommendations from relatable micro-creators on TikTok.

[Accenture even believes that](#) - in a Web3-enabled world - a founder might start with community, define the brand with them, and only then start to market and monetize. Whatever the case, communities will very likely keep rising in importance.

## Small is the new big

Of course, as consumers everywhere in the world are engaged in a “Great Cancellation” of products and services, companies are also following with a “less is more” strategy of their own. Tech companies like Meta, Lyft and Salesforce, known for their sometimes-extravagant office spaces, are already beginning to downsize. Amazon hit pause on its construction plans in Nashville to reconsider how to successfully design a space suited for hybrid workers. We also see companies opting for smaller offices, choosing to sublet the extra vacant space. And let’s not forget the wave of layoffs of big (tech) companies in the second half of this year.

But we also see some big retailers opening small neighborhood stores. So the Big are embracing “smaller” but the already Small are reaping successes of their own too. As reported by GZERO Media, [according to the latest report from the Mastercard Economics Institute](#), growth in online spending at small businesses is outperforming large businesses: online services at small businesses are growing 1.5-2x faster than at large businesses.



Microfactories are apparently also a thing: they use highly automated small-footprint facilities to produce vehicles using a new method that doesn't involve a traditional assembly line. Arrival, for instance, - a company backed by Hyundai and Kia - is developing electric delivery vans with UPS, ride-hailing cars for Uber, and public buses in microfactories

## Inflation inspiration

We also see a definite increase in brands that are trying to help their struggling customers with recession-proof offerings. Amazon has launched Amazon Access, a new hub for customers to explore the programs, discounts and features that the online retailer offers for affordable shopping. Airbnb has been helping [renters find an apartment so they can Airbnb it](#). The company ResortPass gives people a chance to lay out by the pool of a five-star resort without having to stay there.

## Recycle, Reuse, Reconstruct

We find the same recession-proofness in a surge of recycling, reusing and reconstructing services, but here we also often find a strong ESG-driven purpose.

Danish subscription-based office furniture retailer NORNORM, for instance, has a closed-loop business model where furniture is continually repaired and recycled, which results in lowered costs and a smaller environmental footprint. Patagonia was actually one of the first to offer a repair program but it certainly no longer is the only one. Trove, a company that powers branded recommerce brands, has designed resale programs for Lululemon, Allbirds and Levi's. Shein launched Shein Exchange, a peer-to-peer resale platform, though it received some backlash too, because its core fast fashion business model is not exactly environmentally friendly. H&M launched Re:ware also peer-to-peer and powered by Reflaunt. Zara launched a resale site on November 3rd. Decathlon both launched a recommerce initiative as well as borrowing service (for those items like ski material that people rarely use).

All of these are not bad commercial moves either, knowing that more than half of Gen Z respondents in [this trend report](#) by Instagram said they plan to DIY their clothes in 2023 for reasons of sustainability.

Even luxury brands have been hopping on the trend: LVMH will offer sophisticated repair services in 2023 and Hugo Boss will have a resale platform where used Hugo Boss items can be sold. Tommy Hilfiger also plans to set up repair offerings. Electronics too, are joining the trend, with Apple launching a Self-Service Repair kit at the beginning of this year (anticipating laws like the Right to Repair Act, obviously).

## Do you like this content?

Here's more!

- Find our monthly podcast on [Spotify](#) and [Apple Podcasts](#)
- Join thousands of other innovators by subscribing to the [nexxworks newsletter](#)
- Find our [top keynote speakers](#)
- Check out the full [experience calendar](#)

## From search to make

We have been dealing with a growing distrust with technology for a while now. Web3, for instance, was supposed to fix (let's say we're not quite there yet) the exorbitant power of the Web2 giants. But since a few weeks, we have also experienced a growing excitement again, especially when it comes to all the - often pretty impressive - accomplishments of generative AI in text (GPT3), image (DALL-E, Stable Diffusion...) and video (Meta's Make a Video). Many of us felt like kids in a candy store again, obviously also aware of the disruptive impact of this type of tech when it matures (on me as well, obviously).

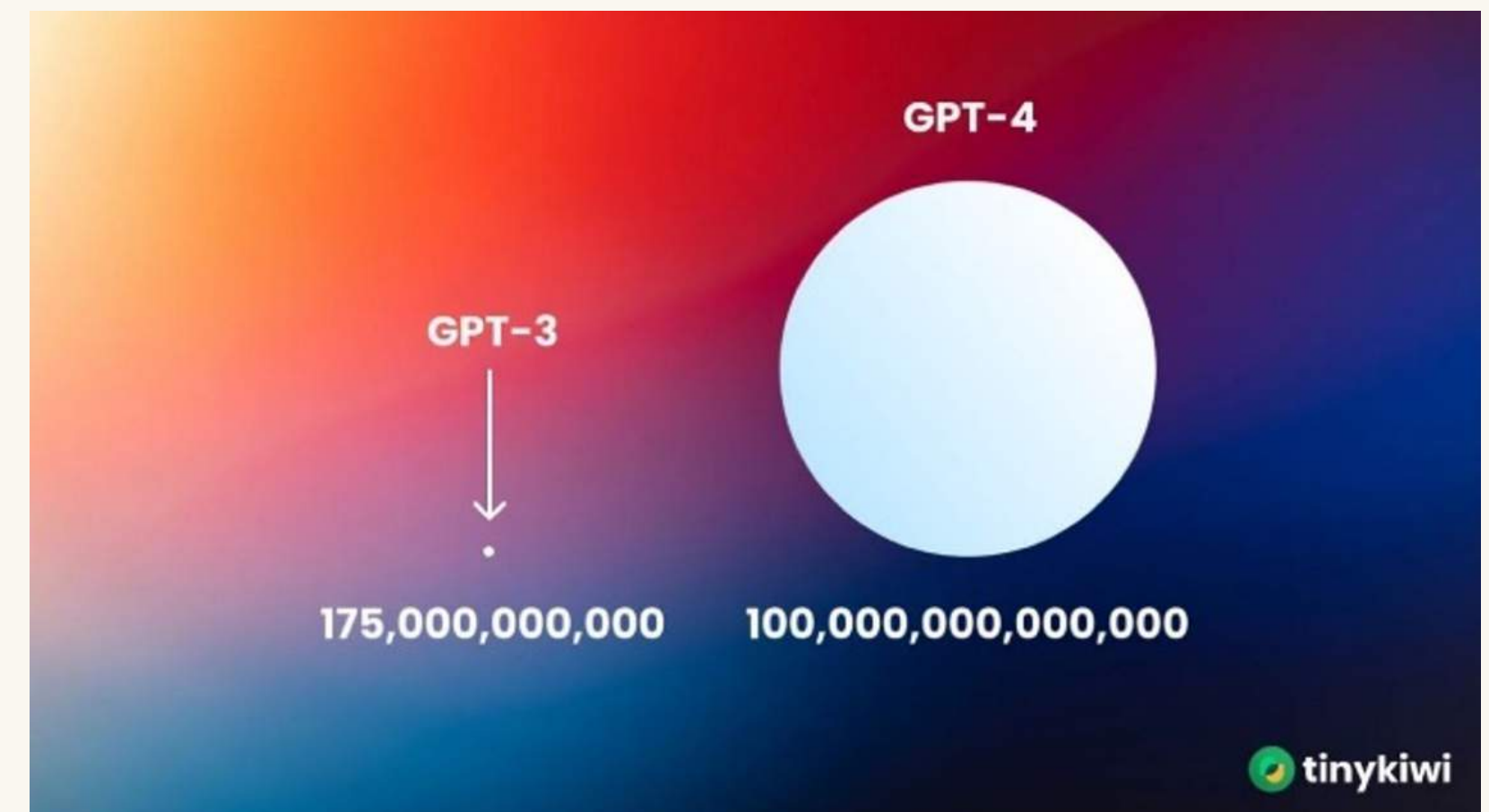
Perhaps one of the most interesting disruptions will be the effect of generative AI on how we find and consume information, one of the backbones of society and business. The business of search – currently still dominated by Google - has been under quite some pressure lately. A few months ago, Prabhakar Raghavan – Google's senior vice president of Google Search – reported that 40% of young people (18-24 years old) are now using TikTok and Instagram to search for places for lunch instead of Google. It is trying to adapt, showing off a bunch of new ways for people to search the internet at its annual Search On event, taking advantage of advances in AI and computer vision.

But Google Search is actually pretty old fashioned and highly inefficient, if you think about it. If you search for something, Google shows you all the places where you can find it (and not even in an unbiased way.) But you still need to find what you're looking for, in the end. And that can sometimes take a lot of time.

GPT3-fueled ChatGPT, however, summarizes all that information for you in one text. Granted, we are not there yet: it is absolutely prone to mistakes and will always offer you a pretty average answer, as it's great at pattern recognition. Also, it is not connected to the internet and searches data from 2021 and before (so not 2022 and this year).

ChatGPT is also currently losing money on each query while Google made about \$40 billion on search ads alone last quarter. Finally, it consumes an extraordinary amount of energy, which is, well, not great in times of climate change and energy shortage.

But, if we see how much more parameters the next iteration – called GPT-4 (at the time of writing unreleased yet) – is using, then we can safely say that this is only the beginning of something potentially huge:



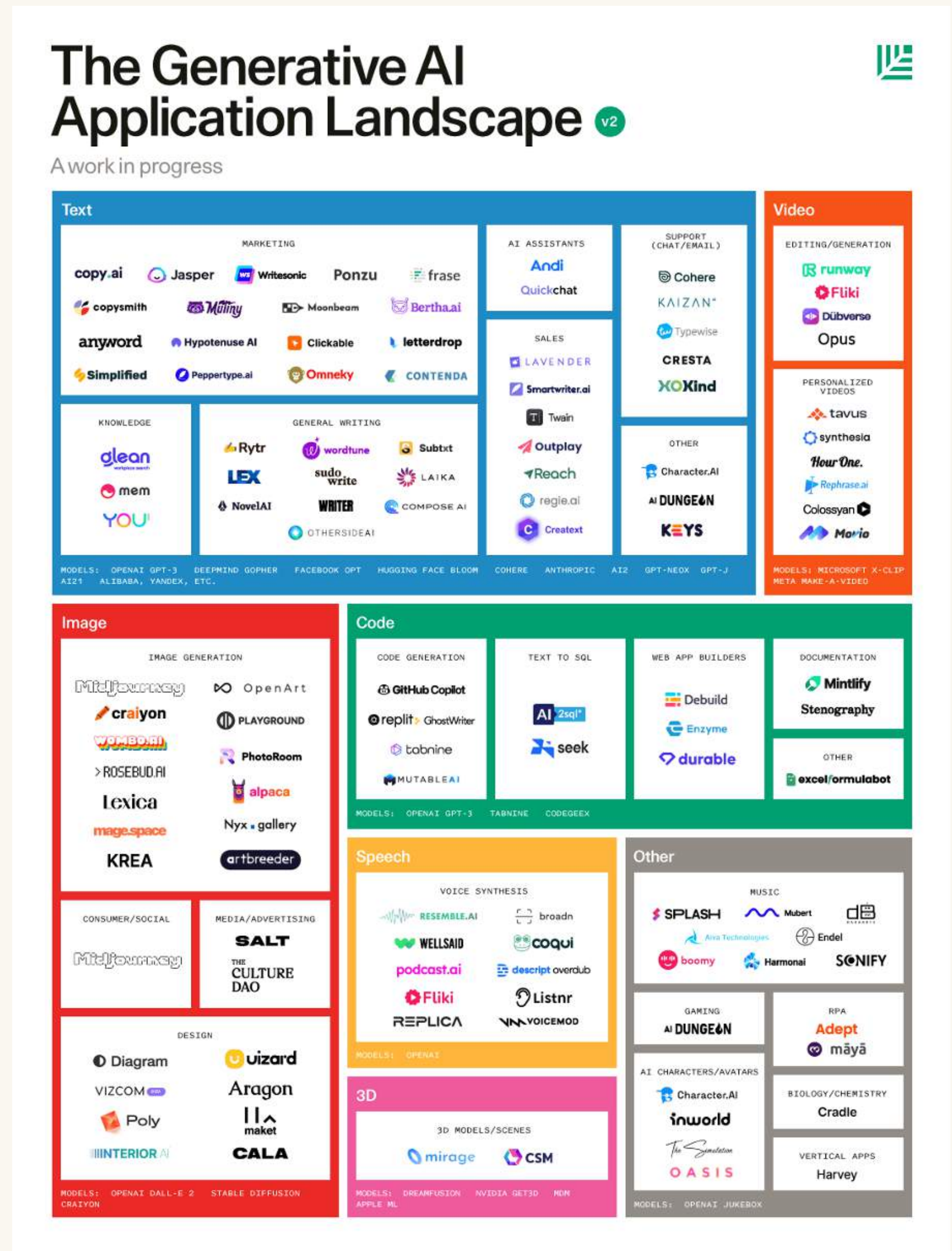
The same goes for image search. Having worked in PR and copywriting before I spent a frustratingly large amount of time searching on stock image websites. Now, Canva has a partnership with Stable Diffusion, where you can make your own images instead of searching them.

This could become really big and will disrupt a lot of industries and jobs. And it is evolving at breakneck speed as you can see from these few examples:

- Google's perpetual view generation project InfiniteNature-Zero can produce high-resolution, high-quality flythroughs starting from a single seed image, using a system trained only on still photographs, a breakthrough capability not seen before

- It has also published a proof-of concept paper for DreamFusion, which shows potential for “AI” to generate 3D objects from text and
- Meta has launched Make-A-Video, which creates high-quality videos from a few words.
- An artificial intelligence system can write code as well as a decent human programmer. DeepMind’s AlphaCode AI entered a coding competition against thousands of professionals, placing in the top 54% of entrants, according to a study in Science. That means large parts of programmers’ jobs could be automated in the next few years.
- DeepMind's Dramatron is an AI co-writing tool that can generate character descriptions, plot points, location descriptions, and dialogue.
- Tencent has a new AI music-generation project that released 1k songs in China - one got 100m streams.
- Metaphor is building a new search engine from scratch, using the same ideas behind DALL-E and Stable Diffusion.
- Notion AI is an AI writing assistant that can help you write, brainstorm, edit, summarize, and more.
- Omneky leverages OpenAI’s DALLE-2 and GPT-3 models to generate visuals and text that can be used in ads for social platforms.

Here’s the generative AI Application Landscape from CBInsights which keeps expanding every day:



## The next wave of Artificial Intelligence is coming fast

Join us on the AI Tour to Lond together with Geertrui Mieke De Ketelaere & Christina Stathopoulos to learn how to stay ahead.



[More info](#)

I could write so much more here, but I'll spare you as this document is already pretty hefty. But I only want to add that the combination of generative AI with the metaverse could be a huge one, where laymen could be able to create entire immersive worlds from scratch if they have enough creativity and understand enough how to prompt. This might also be an important addition to all things "creator economy" (where, for instance, people can create and commercialize their own games on Roblox).

## Everything at once: the quest for the Western superapp

Though Asian superapps like WeChat (China), Grab (Singapore) and Paytm (India) have been around for quite a while now, we haven't quite gotten around to making that model work in the West as well.

It's not like we haven't tried. Meta had a crack at it. Paypal tried. Amazon has been flirting with the idea. But somehow never with the intended results. There are many reasons, but the most important is probably that the West has legacy apps that grew around one specialization and that it's much harder to expand a specialized app than to launch one from scratch (well, of course, not if you're in a saturated fragmented market but you know what I mean: adapting a legacy product is much harder than just building it from the ground up).

Also, governments are very suspicious of monopolies over here. Asian societies, on the other hand, leapfrogged into mobile first and have always been a lot more convenience driven. But it's still an interesting idea and very lucrative (all that data in one place, for one player!) at that. That's why some haven't given up on it.

Microsoft seems to have plans in that direction, considering building a one-stop "superapp" that combines shopping, messaging, web search, news and other services. It is highly experienced in B2B so this would be an extra-daring move.

But it makes sense, seeing that it doesn't operate a mobile app store, unlike Apple and Google, and this would mean that people don't need to leave to access its other offerings. Elon Musk announced the same hopes and dreams when he bought Twitter and announced that he wanted to build X-App: an App for Everything. While he has shared a few details regarding his vision for X (an app for everything), analysts believe achieving this vision will be very challenging.

And then we also see smaller players that gather many services in one app, but it's mostly sector driven like healthcare (Alan), finance (Revolut) or insurance (Lemonade). Though fintech superapp Revolut has also expanded its ecosystem into businesses, where small and midsize businesses and freelancers can offer services in the superapp.

## Le nouveau app store

But the big Web2 giants are not just battling over superapp supremacy, interesting evolutions have been happening in app store land, currently mostly populated by Google Play and the Apple App store. Foreseeing that it will soon have to comply with strict EU regulations, Apple is said to possibly start allowing outside app stores, permitting downloads of apps on its devices without going through the company's app store, possibly allowing them to bypass its fees. That's pretty big.

We also learned how eager Google was on guarding its supremacy: Epic's lawsuit against Google revealed that at least one point in time, Activision and Riot Games were considering making their own mobile app stores and that Google paid \$360 million (over three years) to keep Activision from doing that and Riot about \$30 million (for a one-year deal).

And then there was all this talk about Meta becoming an ecosystem and then partnering with for instance Microsoft in the metaverse, that has me wondering if Meta has plans for becoming some sort of app store for the metaverse (like Apple for mobile), or maybe it 'just' wants to become the metaverse superapp? Microsoft certainly has been wanting for a long time (since 2016) to release a mobile version of the Microsoft Store—currently a marketplace for software on PCs—as an app for Apple's iOS.



Others – like Gennaro Cuofano [in this post](#) - have been wondering if OpenAI - makers of the ChatGPT (Generative Pre-trained Transformer) chatbot launched - could be the new Appstore:

The screenshot shows the 'Examples' page on the OpenAI website. At the top, it says 'Explore what's possible with some example applications'. Below this is a search bar and a dropdown menu for 'All categories'. The page displays a grid of 24 example applications, each with a colored icon, a title, and a brief description:

- Q&A**: Answer questions based on existing knowle...
- Grammar correction**: Corrects sentences into standard English.
- Summarize for a 2nd grader**: Translates difficult text into simpler concep...
- Natural language to OpenAI API**: Create code to call to the OpenAI API usin...
- Text to command**: Translate text into programmatic commands.
- English to other languages**: Translates English text into French, Spanish...
- Natural language to Stripe API**: Create code to call the Stripe API using nat...
- SQL translate**: Translate natural language to SQL queries.
- Parse unstructured data**: Create tables from long form text.
- Classification**: Classify items into categories via example.
- Python to natural language**: Explain a piece of Python code in human un...
- Movie to Emoji**: Convert movie titles into emoji.
- Calculate Time Complexity**: Find the time complexity of a function.
- Translate programming languages**: Translate from one programming language ...
- Advanced tweet classifier**: Advanced sentiment detection for a piece o...
- Explain code**: Explain a complicated piece of code.
- Keywords**: Extract keywords from a block of text.
- Factual answering**: Guide the model towards factual answering ...
- Ad from product description**: Turn a product description into ad copy.
- Product name generator**: Create product names from examples word...
- TL;DR summarization**: Summarize text by adding a 'tl;dr:' to the en...
- Python bug fixer**: Find and fix bugs in source code.
- Spreadsheet creator**: Create spreadsheets of various kinds of dat...
- JavaScript helper chatbot**: Message-style bot that answers JavaScript ...
- ML/AI language model tutor**: Bot that answers questions about language...
- Science fiction book list maker**: Create a list of items for a given topic.
- Tweet classifier**: Basic sentiment detection for a piece of text.
- Airport code extractor**: Extract airport codes from text.
- SQL request**: Create simple SQL queries.
- Extract contact information**: Extract contact information from a block of ...

The quest for the Western superapp or the next app store are not the same, but they share the same goal: the quest for power. Power and data, and the last will certainly become a big battling ground if the Web3 paradigm ever kicks in. The more useful it is for a consumer to open up his data – for instance in a convenient superapp – the more likely (s)he will want to do that.

**Now is the winter of our disconTECH (Sorry, REALLY bad wordplay, this..., but, ... come on, it's SHAKESPEARE, man!)**

**Winters, plural, are coming**

I remember when the term winter in technology was only used for AI, meaning those periods of reduced funding and interest between 1974 and 1980 as well as between 1987 and 1993. But now winter is everywhere, except maybe in AI where we are experiencing the immense generative AI hype for the moment.

First of all, there's the crypto, or more generally the Web3 winter. We owe that to SBF and FTX, but truth is that it had been going on for a while, with Bitcoin and Ethereum plummeting but also some pretty nasty NFT crashes. Like Jack Dorsey's first-tweet NFT plummeting 99% in value in a year. But we had to have seen it coming. Around this time last year, we had been overhyping the Web3 trend, where a lot of examples were pretty gimmicky and we saw very few real use cases. What goes too far up, most come down, right?

But it's not just Web3. Autonomous driving (e.g. Argo shutting down), voice applications (The Amazon Alexa division layoffs), quantum computing and even the metaverse (come on, when we compare the attention now to about half a year ago... and the news that certain metaverses like Decentraland and Meta have far fewer users than expected) have entered a wintry era.

My guess is that we might see the same thing with generative AI in a few months. Yes, the potential is amazing, and some results are too, but ChatGPT still makes a lot of mistakes, too, though that may change with the arrival of GPT-4.

For me, these winters do not signify the demise of these technologies, just that we overhyped them before, that computing capability still needs to evolve, that they still need to evolve etc. but only time will tell how useful they will prove to be.

What does strike me most is that the winters seem to come and go much faster than before. Previous AI winters took 6 years, now Web3 went from hero to almost zero in about 1 year. That's because we humans like our shiny new toys, and always believe that they are going to solve everything. In the Victorian era, everyone went gaga over electricity, of which they were even convinced that it would bring us to the moon. But it's (almost) never the one Big new thing that gets us to "the moon", it's a convergence of many scientific and technological breakthroughs. Things building on top of other things. And sometimes it just takes a loooong time between a disruptive idea and its success. It took 150 years before we built the computers that Charles Babbage had designed and the software that Ada Lovelace wrote, for instance.

### A China Winter?

Though it is not a technology per se - but highly technologically driven - we're also experiencing a China winter of sorts. Not just the chilling of its relations to many world players, but because the property sector is in crisis (remember Evergrande), unemployment is skyrocketing, the economy is faltering, there was a crackdown on the once-vibrant private sector, a harsh zero-Covid approach and then the consequences of opening up again, tensing relations with other world players and of course, a weakening global economy.

I dare to call this a winter because we tended to look at China for technological inspiration. But, as with technology, spring will come one day, and I wonder if the decoupling from the US will not make it more powerful in the long run (even though it's suffering in the short term).

## A tech company winter

The last winter I want to talk about is that of the Web2 and other tech giants. They have had to cope with major hits in 2022. Just to give some examples:

- Meta: 13% of its workforce laid off (11,000 workers)
- Twitter: - 50% (almost 4000 people)
- Cisco: - 5% (4,000 employees)
- Microsoft: - 1% (1,000 people)
- Stripe: - 14 percent %
- Intel: - 20 %
- Lyft: - 13 %
- Coinbase: - 18% (1,100 people)
- Shopify: - 10% (1,000 people)
- Salesforce: - 2500 people
- Netflix: - 450 employees
- Snap: - 1/5.
- Robinhood: - 1/4
- Tesla: - 10%

All in all, there were more than 1023 tech companies with layoffs and 154.256 employees laid off in 2022. So far in 2023, at the time of writing, there were 82 tech companies with layoffs and 23.550 employees laid off. You can check the live numbers on this [extremely depressing but informative website](#).

But it's not just the layoffs, it's a cultural reset as well with the famous tech industry perks (free food, laundry services, biz travel) being nixed by companies like Google, Netflix and Meta. If you want to know more about why this has been happening, you can listen to the [November episode of Radar](#) (as of about 1 hour and 12 minutes) where I go deeper into that. The most important reason for me is that the Big Tech giants are now mature, can no longer present exponential growth to their investors and have been struggling to integrate the emerging paradigms - like Web3 and the metaverse - which are still maturing and thus not profitable yet. I don't believe that their "evil" (according to some) reign is quite over yet, but they will need to step up their game, if they want to keep ruling.

The fact that they have been subject to an increasing number of lawsuits and regulation will certainly not help their case here: the new [AI Act in the EU](#), Amazon's lawsuits in Britain (favoring its own products) & the US (iRobot Corp & virtual reality), Google's lawsuit in India (anti-competitive practices) or Meta's lawsuit in Ethiopia (enabling inflammatory rhetoric that fanned the flames of the recent civil war) are just a few examples.

But they have been feverishly looking for new revenue models, beyond their core business. ByteDance has been looking into healthcare, acquiring one of China's largest private hospital chains—Amcare Healthcare. Meta Platforms is trying to conjure up the metaverse, as we all know, but it has also been dabbling in AI + healthcare (its researchers using a large language model to predict the structures of around 600 million proteins). Apple is building a mixed-reality headset and a car. Alphabet is placing lots of "other bets," chiefly in self-driving vehicles with Waymo. Amazon is making some big moves around health, but also in banking and finance. And Microsoft is venturing into consumer services (see the superapp and/or app store stories above).

**All the ways Amazon is unbundling the bank**

The infographic compares Chase and Amazon's financial services. Chase offers: Credit Cards, Checking Accounts, Savings Accounts, CDs, Auto, Mortgage & Home Equity, and Investing. Chase for BUSINESS offers: Business checking, Business credit cards, Business services, Merchant services, Line of credit/loans, Savings & CDs, and Resource Center.

Amazon's services include:

- Credit cards:** prime, amazonPrime STORE CARD, amazon.com STORE CARD.
- Checking accounts (incl. prepaid cards):** amazoncash, amazon reload, amazon reloadable.
- Business credit cards:** amazon REVOLVING CREDIT LINE, business prime.
- Line of credit/loans:** amazonlending.
- Merchant services (incl. payment solutions):** amazon go, amazon pay, amazon payment services, amazon PayCode, one.
- Insurance:** amazonprotect, amazon.in pay.

Note: Merchant services includes payment solutions; checking accounts include prepaid cards function. CBINSIGHTS

Others, like Netflix, Apple, Microsoft and Amazon have been looking into advertising. Or they have been investigating paid services too: Twitter, TikTok (testing paid subscriptions for creators), Snapchat (paid tiers that unlock additional features), Instagram (testing a gifts monetization feature for creators), Facebook and WhatsApp. The reason for the latter three is of course because parent company Meta's ads business was severely hurt by Apple's ad tracking changes on iOS and a broader pullback in digital ad spending. Of course, chances are that the majority of people won't buy into this, seeing that only about 21% of people say they would pay a monthly subscription fee for social media, according to [this study](#). And even that number seems frankly enthusiastic to me.

And let's not forget how the old Web2 giants have been eagerly copying the younger generations: Amazon, Meta and even Google finding "inspiration" in TikTok, Facebook looking at Discord, Instagram and even TikTok copying BeReal.

Another trend was how some of the Big Tech players ventured into huge partnerships – l'union fait la force style, I guess – to expand or deepen their offering and reach. Microsoft seemed to have been the belle of the ball here

- entering an 'immersive' partnership with Meta (to deliver immersive experiences for the future of work and play);
- working together with Netflix (some are even thinking that Microsoft and Netflix will merge at one point, both having (increasing) gaming ambitions)
- taking a 4% equity stake in London Stock Exchange Group (as part of a 10-year commercial deal);
- or (at the time of writing) looking to take a 49% stake in OpenAI, valuing the company at around \$29 billion. With this deal, Microsoft would receive three-quarters of OpenAI's profits until it recovers its investment, with additional investors taking 49% and OpenAI retaining the remaining 2% in equity.

All in all, it's safe to say that a lot of the older tech companies are coping with a severe identity crisis for the moment and are looking into many directions to cut costs and find new revenue streams.

## Hybrid disappointment

As technologies and behaviors are changing, so is work of course. But perhaps the biggest struggle of them all is our failure to create a functional hybrid work environment. Two things are certain:

1. We are never going back to a purely physical work type environment. It will always be a mix.
2. We'll need to set up new structures, mindsets (trust, not control), rules and habits that are fit for a hybrid environment, which, so far, has not been very successful.

There are sadly too many examples of the currently pretty broken hybrid work approach. In September, General Motors postponed its three-day-a-week, in-person return after it tried—and failed—to communicate it to employees. GM changed course just two business days later, after workers, confused and angered by the policy, pushed back, according to CNBC. **Apple** has had multiple false starts since the summer of 2021, thanks to Covid-19 and resistance from employees, who've opposed the strict nature of the mandates. Elon Musk used threats of termination to bring employees of his EV business back to the office full-time in June. But those who returned faced a unique problem: There weren't enough parking spaces and desks, and the Wi-Fi wasn't strong enough to support their work, The Information reported. So, managers told employees to continue working from home.

But the hybrid work tensions are of course part of a bigger challenge: workers are overworked (expected to continue performing with much fewer resources after colleagues were laid off), still struggling through the emotional aftermaths of the pandemic, worried about the crisis, the environment, geopolitical turmoil and they often feel disenchanting. If it can help them focus more, lose less commute time and even stimulate their general wellbeing, it is crucial to find ways in which this can work.

## No trust

One of the biggest problems in the hybrid dilemma is lack of trust, of course: “According to Microsoft research, a full 85% of leaders say [‘the shift to remote work has made it challenging to have confidence that employees are being productive’.](#)”



So it should not come as a surprise that no less than 8 out the 10 of the biggest employees in America use surveillance software and employee monitoring software. I'm with Trust and Technology expert Rachel Botsman when she claims that [this is not a healthy nor efficient working environment](#). These types of software often backfire: “they create a culture where ultimately people are trying to cheat the system or where people feel disengaged because they feel micromanaged”.

In fact, according to a [survey by Chase Thiel, Julena M. Bonner, John Bush, David Welsh, and Niharika Garud](#) “monitored employees were substantially more likely to take unapproved breaks, disregard instructions, damage workplace property, steal office equipment, and purposefully work at a slow pace, among other rule-breaking behaviors”.

But the examples of this are legion, unfortunately, often translating data-mining techniques, algorithms and tracking software from marketing environments to the workplace to keep tabs on employees who have now become “data points”. Invisible AI recently raised \$15 million to stick worker-monitoring cameras in factories. Emotiv is a Silicon Valley neurotech company that’s bringing a brain-tracking wearable to office workers, including those working remotely. There are even companies out there that log keystrokes, take screenshots, detect mouse movement, monitor websites, use webcams and even take over employees’ devices remotely. A social-media marketing company in Florida, for instance, installed software on employees’ work computers that takes screenshots of their desktop every 10 minutes and records how much time they spend on different activities.



## A privacy nightmare

That’s a privacy nightmare. Some of these hard-core monitoring tools violate data protection laws such as the General Data Protection Regulation (GDPR). According to Forrester, 2023 will bring more lawmaker attention on workplace surveillance. They also expect more employee backlash, strikes, and labour organizing in response to surveillance. On top of that, I personally think it’s plain insanity to believe that you can measure someone’s worth and efficiency on the number of letter (s)he types per day, for instance. That is not how we will design a workable, efficient and gratifying working environment.

## Perk central

On the other hand, next to the bleak future of work vision of keystroke monitoring, we also see companies “bribing” their employees with new kinds of perks to come back to the office. End of 2022 the Wall Street Journal published an article titled [“The Open Office Is Out, ‘Seated Privacy’ Is In as Cubicles Make a Comeback”](#), claiming that “Walls are the star attraction in some companies’ latest attempts to lure back workers who hate ‘open’ offices and up-for-grabs seats”.

To me, this feels like another band-aid on the fractured bone that is hybrid working. It may be good to have some privacy at the office for some employees, but this will not fix all the issues of hybrid working that need to be solved which go much deeper and have to do with trust, power and convenience.

But it’s not just about perks around the hybrid work environment, companies are also looking into ways of safeguarding the wellbeing of their employees in novel ways. Something that is pretty essential in times of quiet quitting and the Great Resignation. An increasingly popular approach is the four-day work week. We’ve seen this happening at Telstra, Medibank, NIB, Grant Thornton, Kickstarter and bigger brands like Unilever (in New Zealand and Australia), sometimes only on (local- trial, though).

And though this 4-day approach might take some adaptation, the Tyler Grange consulting firm seemed quite happy with their 6-month trial, according to CEO Gary Conway: “Revenues up by 40%. Retentions are 100%. Nobody’s left. Recruitment’s become a lot easier. Generally, people seem to be much, much happier”.

## How can your business find and retain top talent?

In the era of the Great Resignation, the War for Talent has been more brutal than ever. Join Frederik Anseel in Copenhagen on the [Art of Talent Tour](#).



[More info](#)

# Parting words

WRITTEN BY

**Eline Lostrie**

CCO & Partner at nexxworks



I hope that our e-book was able to inspire you in many new ways, maybe even triggering ideas that might help you better navigate these exciting but challenging times.

If there is any way that I can help you, even if it was just as a sparring partner for some of the insights that this trend e-book provoked, contact me at [eline@nexxworks.com](mailto:eline@nexxworks.com)

May the network be with you!

Warm regards,

Eline

## About nexxworks

We believe each organization should invest at least 10% of its time and resources to prepare for the day after tomorrow. By bringing the right stories, inspiration and interactions we guide to find direction, to create enthusiasm and to kickstart the action and mindset for the day after tomorrow.

[www.nexxworks.com](http://www.nexxworks.com)

Want to find out how our programs can help you kickstart our innovation?

Contact [eline@nexxworks.com](mailto:eline@nexxworks.com)!



**nexxworks**