

# TIME

## THE 100 MOST INFLUENTIAL COMPANIES

—  
OPENAI CEO  
SAM ALTMAN

+

SKIMS  
BYD  
TACO BELL  
NOVO NORDISK  
HAPPIEST BABY  
TIKTOK  
FORMULA ONE  
IBM  
DISNEY  
MERCADO LIBRE  
& 89 more leaders



# Green team puts sand to flight

Creeping desert in country's north meets a formidable foe in the planting of a hardy perennial

BY ZHENG JINRAN  
and YUAN HUI

In the Tengger Desert in May, yellow sand danced on the breeze and a profusion of sweetvetch swung its green leaves.

"In summer you can see an amazing flower ocean when the plants bloom with their small pink, yellow or purplish petals," said Liang Cunxin, 53, of Alshaa Left Banner, Inner Mongolia autonomous region.

"The enduring vitality of such plants on the barren land is astonishing," said Liang, whose family lived in the area for decades but was forced to relocate in 2007 as a result of desert encroachment.

The Tengger covers about 16,600 square miles in Inner Mongolia and Gansu province, making it China's fourth-largest arid area. More than 2 million sweetvetch shrubs have been planted since 2017, and the hardy perennial has gradually covered more than 12.7 square miles of desert, Liang said.

About 400 million people from 30 provincial-level regions have been affected by desertification, which by 2019 had covered a combined area of 648,650 square miles, or 17.58% of China's total land area, the National Forestry and Grassland Administration says.

Speaking on June 6 during a meeting with officials after a trip to Bayannur, Inner Mongolia, President Xi Jinping said the



Sand control workers help prepare barriers that will house sand-resistant plants in Gansu province. YANG YONGWEI / FOR CHINA DAILY

strengthening of efforts to fight desertification and move forward with key projects, such as the Three-North Shelter Forest Program, is related to environmental security, the building of a strong country and its sustained development.

Xi called for sustained effort on great new feats in tackling desertification. He reiterated the need to give priority to preventing and controlling desertification as part of broader steps to build a shield for environmental security in northern China.

Sun Tao, director of the desertification monitoring center with the Forestry Survey and Planning Institute at the National Forestry and Grassland Administration, said: "China has made tremendous anti-desertification efforts, especially in the vast northern and northwestern regions, as the arid land in these areas has been a major source of sandstorms."

The fight against desertifica-

tion has become a global issue, making international collaboration essential. Chinese methods could be shared with countries facing similar problems, Sun said.

President Xi has also called for extensive international exchanges and cooperation in fulfilling China's commitments to the United Nations Convention to Combat Desertification. China will actively participate in global anti-desertification and environmental governance efforts, strengthen cooperation with neighboring countries and support desertification-control initiatives under the Belt and Road Initiative, he said.

Inner Mongolia accounts for 23.7% of the national area of desertified land, making it one of China's most badly affected regions. As such, it has implemented significant measures, especially afforestation efforts.

"We have expanded forest coverage by more than 2,574

square miles annually, and grassland by more than 7,722 square miles," said Ma Qiang, deputy head of the regional forestry and grassland administration, adding that more than 2 billion trees have been planted via voluntary public afforestation initiatives. The work has resulted in the area of desertified land in the region falling 15 years in a row.

According to the regional forestry authority, along with extensive afforestation efforts, Inner Mongolia has implemented measures such as strict grazing controls and grassland conservation projects, explored new techniques and established policies and regulations to guide sustainable land management practices. The measures are part of broader national initiatives to combat desertification and restore degraded ecosystems.

Moreover, China has taken a systematic and scientific approach to combating desertification in recent decades, encompassing mountains, bodies of water, forests, farmland, lakes, grassland and deserts. As one of the leading guidelines, the National Desertification Prevention and Control Plan (2021-30), lists coordinated measures among different regions, based on their situations, and outlines measures to reach various targets.

Under the plan more than 16.5 million acres of desertified land will be treated by 2025, rising to more than 30.6 million acres by 2030.



Volunteers take part in an anti-desertification activity in Hulunbuir, Inner Mongolia. PROVIDED TO CHINA DAILY



Over more than 3,000 years the melody of the *guqin* has lost none of its power

Performers in a *guqin* studio uses modern means to popularize the ancient zither and other traditional musical instruments among a younger audience. PROVIDED TO CHINA DAILY

## Magical things from ancient strings

BY CHEN NAN

When Wu Wenguang, a virtuoso performer of the ancient zither *guqin*, talks about its history, he likes to quote a folktale about the legendary friendship between a musician and his biggest admirer.

During the Spring and Autumn Period (770-476 B.C.) there was a musician named Yu Boya who lived alone in a forest where he played the *guqin*. A passing woodcutter named Zhong Ziqi was intrigued by the sounds and stopped to listen. Yu's playing conjured up various pictures in Zhong's mind such as clouds flowing and waterfalls plunging. They became good friends. After many years, when the woodcutter died, Yu decided to smash his instrument and never to play again because he knew that he would never again have someone like Zhong to so intuitively understand his music.

"Such was the connection between performing and listening, which is linked by the *guqin*, an instrument that is endowed with the power to communicate the deepest feelings," says Wu, 78. "When we talk about traditional Chinese culture, the *guqin*, which was played by many literati and other notables, is definitely at the core of this culture."

Indeed, the *guqin*, the favored instrument of Confucius, was an essential musical instrument of ancient China's educated elite. It was added to the Representative List of the Intangible Cultural Heritage of



Wu Wenguang is a virtuoso performer of the *guqin*. WANG JING / CHINA DAILY

Humanity by UNESCO in 2008.

"The Chinese zither has existed for more than 3,000 years and represents China's foremost solo musical instrument tradition," the UNESCO website says. "Described in early literary sources and corroborated by archaeological finds, this ancient instrument is inseparable from Chinese intellectual history."

In April, when President Xi Jinping met French President Emmanuel Macron, a classic *guqin* piece, *High Mountain and Flowing Water*, was played to celebrate the friendship between the two countries.

Wu, born in Changshu, Jiangsu province, learned to play the *guqin* with his father, Wu Jinglue, who was also a *guqin* master and founded the *guqin* music school of the Wu family.

Wu Wenguang graduated from the China Conservatory of Music and the Chinese National Academy of Arts in Beijing before studying musicology at Wesleyan University in Middletown, Connecticut, with

a full scholarship from 1985 to 1990. Since returning to China Wu Wenguang has taught at the China Conservatory of Music.

"My father, once a member of a *guqin* troupe in Shanghai, devoted his life to the instrument, which naturally influenced me," Wu Wenguang says. "I am the second generation of my family keeping the tradition of playing and promoting the instrument, and my daughter is the third generation."

The many *guqin* schools in the country keep the ancient instrument alive, he says.

One of the key factors of the revival of the instrument is tablature. According to Wu Wenguang, traditionally, *guqin* music is written in abbreviated characters that indicate how to use the hands and interact with the seven strings. This is unlike anything in Western music. In *guqin* music there is no obvious rhythmic indication, which is like poetry. We are given the words, but there are no instructions on how fast or slow to read the poem.

"There are about 3,000 ancient songs in *guqin*'s repertoire, and different performers can have different interpretations," says Wu Wenguang, who along with his father has re-created more than 100 ancient scores. For example, they have recovered all of the scores collected in a *guqin* handbook, titled *Shenqi Mipu* ("marvelous secret music score"), which included 64 music pieces and was compiled by Zhu Quanzhang, founder of the Ming Dynasty (1368-1644).

In addition to ancient *guqin* songs, Wu Wenguang has also adapted contemporary music works into his performances, which has helped expand the repertoire.

Wu Wenguang's daughter, Wu Ye, is carrying on the family tradition of playing the instrument and is keen on composing new music for it.

"*Guqin* playing was developed as an elite art form and now it has gained popularity among young people with a new wave of interest in the country's traditional culture and the government's efforts to promote this," she says.

Since 2020 she has initiated and organized a series of *guqin* concerts. The concerts, with different themes, have appealed to a young audience. The latest concert was held in Beijing on May 20.



**Online**  
Watch the video by scanning the code.



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With student athletes now allowed to sign outside deals, college high jumper Sam Hurley has earned nearly \$1 million

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*Ukrainian soldiers atop a tank en route to positions near Bakhmut, in the Donetsk region of Ukraine, on May 23*

*Photograph by Efram Lukatsky—AP*

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### Top 100 Companies

TIME's 2023 list of the disrupters, innovators, titans, leaders, and pioneers shaping more than just the world of commerce

## The moment is now



**We've seen how quickly the role business plays in our lives can change**

NOT LONG BEFORE WE LAUNCHED THE FIRST TIME100 Companies list in 2021, Jensen Huang told us, “AI is a watershed moment for the world.” That moment has now arrived. Recently, Huang’s company, Nvidia, which makes the hardware powering this revolution, was valued at over \$1 trillion. This year’s list, which again includes Nvidia, shows the power of this vision. Accomplishments in AI earned spots for more than a dozen companies, up from five a year ago.

Perhaps most visible among them is OpenAI and its CEO Sam Altman. Their ChatGPT program has rocketed in popularity, hitting 100 million active users in two months. (It took Instagram 2½ years.) TIME’s former editor-in-chief Edward Felsenthal visited Altman and his colleagues in San Francisco in May. We found Altman uncertain about what’s next, describing himself as both “very optimistic and prepared for things to go super wrong at any point.” As Edward and Billy Perrigo write, OpenAI’s impact may be measured not just in users but also in how the company and its rivals shape the future.

To create TIME100 Companies, our editors, led by Emma Barker, seek nominations from our global network of contributors and correspondents as well as from outside experts. Then we evaluate each on key factors, including impact, innovation, ambition, and success. The result is a diverse group of businesses helping chart an essential path forward.

Since we began this effort, we’ve seen how quickly the role business plays in our lives can change. We launched this franchise following the first year of a pandemic that transformed how many people viewed their jobs, their offices, and work entirely. Company leaders were thinking in new ways about what they owed their employees, society, and the planet.

These shifts accelerated our interest in hosting regular conversations with the people shaping the world’s most influential companies. Our weekly newsletter The Leadership Brief—interviews with individuals who lead top global organizations—has built a community of subscribers that includes more than 500,000 people

on LinkedIn. To expand on those conversations, we recently launched the TIME CO2 Leadership Report, in which Justin Worland explores the overlapping worlds of business and climate. That intersection is growing more crowded and consequential: compared with last year, twice as many of this year’s TIME100 Companies are leaders in sustainability and climate action.

**SINCE ITS FOUNDING** a century ago, TIME has believed individuals play an essential role in shaping the world. That view is strengthened by many of the TIME100 Companies founders and CEOs. While Kim Kardashian has shaken up our culture over the past 15 years, this is the first time she appears on our cover, in recognition of the remarkable growth of her fashion company Skims. Its origin story involves the star using

tea bags to dye undergarments a preferred color and tape to get the right fit. Those DIY alterations have led to a privately held company valued at \$3.2 billion, which, Kardashian tells Belinda Luscombe, is more wildly successful than even she imagined.

Among the other executives who provide insights as part of this year’s TIME100 Companies are Rob Manfred, commissioner

of Major League Baseball, which changed the game by introducing the pitch clock this year; Lars Fruergaard Jorgensen, the CEO of Novo Nordisk, which created diabetes and weight-loss drugs Ozempic and Wegovy; and SeungKyu Yoon, the CEO of Kia America, which this year made an impressive pivot to electric vehicles.

This week happens to mark my 10th year at TIME. That anniversary arriving at the same time as TIME100 Companies reminds me how businesses don’t change just the world but also the people who work at them. A lot has evolved in the past 10 years, and even more across TIME’s 100-year history. Fortunately, much has stayed the same. Our legacy is our strength and, like many of the companies on this year’s list, we are excited to be building on it.



Altman on set with a bespoke backdrop designed by DALL-E, an AI art generator

Sam Jacobs,  
EDITOR-IN-CHIEF



**TIME's new podcast**

TIME's first original podcast, *Person of the Week*, is a weekly conversation with the world's most influential people, hosted by senior correspondent Charlotte Alter. Listeners will hear candid conversations with politicians, business leaders, and celebrities—like actor Elliot Page (*above right*, with Alter in the studio), who spoke about his new memoir, *Pageboy*. Starting June 15, find new episodes wherever podcasts are available, and more information about each episode at [time.com/personoftheweek](http://time.com/personoftheweek)



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**SETTING THE RECORD STRAIGHT**

In the Brief (June 12), we misstated which year the app Grab was expecting \$2.2 billion in revenue. That figure is for 2023.

**On the covers**



Photograph by Dana Scuggs for TIME



Photograph by Michelle Watt for TIME



TIME illustration; photographs: Getty Images (3)

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**Quiz time**

TIME's data journalists trained the technology behind ChatGPT to produce 10 quizzes based on cover stories handpicked from the TIME archives, which are now available online to everyone free of charge. The artificial-intelligence model created multiple-choice questions on everything from a 1974 look at the state of the American pet industry to the 2016 obituary for legendary boxer Muhammad Ali. Test your knowledge and learn how the quizzes were created at [time.com/ai-quiz](http://time.com/ai-quiz)

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# The Brief



## MAKING THE CASE

BY BRIAN BENNETT

To take Donald Trump to trial, bringing charges over his handling of classified documents is only the first challenge

INSIDE

HOW TO COMBAT SELF-CRITICISM

THE HAZARDS OF WILDFIRE SMOKE

SPENDING TIME WITH ROBERT F. KENNEDY JR.

**B**RINGING HISTORIC FEDERAL CHARGES against Donald Trump was just the start. The challenge for Justice Department special counsel Jack Smith, as he prepares to argue in court that the former President illegally took national-defense secrets to his Florida home and defied efforts to get them back, is to make the charges stick.

The 37-count indictment, handed down by a Miami grand jury on June 8, uses photographs, text messages, and the words of Trump's own lawyer to allege he stored some of the United States' most closely held secrets—including information about its nuclear programs, defense vulnerabilities, and attack plans—in a Mar-a-Lago Club ballroom, a bathroom and shower, his bedroom, an office, and a storage room, and then allegedly obstructed federal officials seeking their return. The charges that Trump denied at his arraignment in a Miami courtroom five days later included not only “willful retention of national defense information,” but also conspiracy to obstruct justice, concealing documents from a federal investigation, and making false statements.

However formidable his evidence, Smith, a taciturn career prosecutor with a medieval-looking beard, faces substantial obstacles. The case was assigned to a federal judge who has already been chided by an upper court for inappropriately favoring Trump. Nearly everyone in the country has an opinion about Donald Trump, jurors will be selected from a state he won in 2016 and 2020, and it takes only one holdout to bring a mistrial. And Trump is using his indictment to stir up crowds and raise money for his presidential campaign.

The Southern District of Florida is known for presiding over a “rocket docket” that moves cases quickly. But Trump has spent decades stalling legal challenges, and could try to push a verdict out past Election Day. Regardless of how long the legal process takes, neither indictment nor conviction would bar him from being elected. With the integrity of the U.S. justice system—and possibly the outcome of a presidential election—hanging in the balance, a lengthy trial in a high-profile case is exactly what the Justice Department doesn't want.

**SMITH HAS SPENT** nearly his entire career prosecuting. After graduating from Harvard Law School, he worked for the Manhattan DA's office, then the U.S. attorney in Brooklyn, and worked his way up through the Justice Department

to lead the unit that brings cases against public officials accused of corruption. After a stint in the U.S. attorney's office in Nashville, he tolerated only a year litigating for the private Hospital Corp. of America before moving to the Hague, where he charged war criminals for the Kosovo Specialist Prosecutor's Office. That's where Attorney General Merrick Garland found Smith when he needed an independent special counsel to oversee not only the classified-documents case, but also the DOJ investigation into whether Trump tried to reverse the 2020 election or encourage the Jan. 6 storming of the Capitol.

The “No. 1 challenge” on Smith's mind, says Renato Mariotti, a former federal prosecutor, has to be that the case will be presided over by Aileen Cannon, a Trump appointee whose intervention on his behalf after the FBI search of Mar-a-Lago was reversed by the 11th Circuit Court of Appeals because it created an “unprecedented exception” for the former President. A district judge like Cannon has “very significant” power at trial, says Mariotti. For example, prosecutors would not be able to

appeal if she decided to throw the case out after the jury was empaneled. Should Trump be convicted, she would determine his sentence. She can influence the terms of jury selection and their instructions, as well as the trial's date and how long it takes. So the independence of the judiciary is also being watched closely—as is the calendar. The GOP selects a presidential nominee in just over 13 months. Even a run-of-the-mill federal case often takes a year at trial. In a case involving national-security documents, the process often takes even longer.

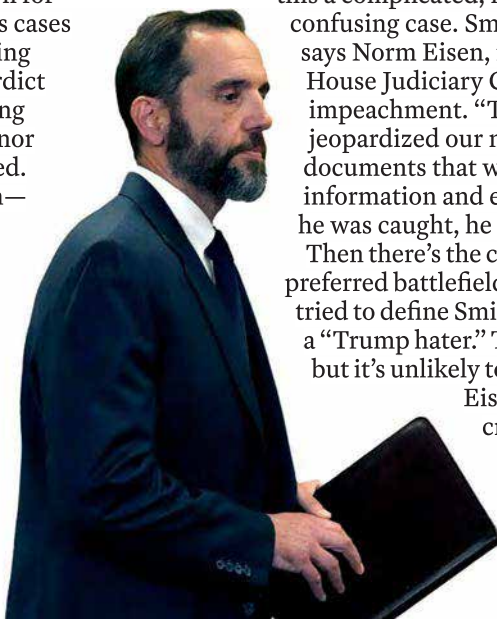
“Trump may try to make this a complicated, intricate, self-justifying, confusing case. Smith needs to keep it simple,” says Norm Eisen, former special counsel to the House Judiciary Committee during Trump's first impeachment. “This is about a President who jeopardized our national security by removing documents that were classified national defense information and extremely dangerous, and when he was caught, he covered it up.”

Then there's the court of public opinion, Trump's preferred battlefield. The candidate has already tried to define Smith as “deranged,” a “thug,” and a “Trump hater.” That may influence his faithful, but it's unlikely to make a dent in the prosecutor,

Eisen says: “Jack Smith has tried war criminals who have committed mass atrocities. So I don't think he is going to be daunted by name calling by Trump.” □

**‘We have one set of laws in this country, and they apply to everyone.’**

—JACK SMITH,  
JUSTICE DEPARTMENT  
SPECIAL COUNSEL





GOOD QUESTION

# Who was the last VP to run for President against his old boss?

BY OLIVIA B. WAXMAN

THE 2024 PRESIDENTIAL CAMPAIGN FIELD, WHICH already features the first former U.S. President ever to be criminally indicted, is about to get even more unprecedented. On June 5, Mike Pence filed paperwork to run for President, making him the first former Vice President to run against the President under whom he served in over 80 years, and only the third ever to do so.

“We haven’t had anything like this before,” says Joel Goldstein, an expert on the history of American Vice Presidents and law professor emeritus at St. Louis University.

History can be a bit confusing on this point. In the election of 1800, a sitting Vice President, Thomas Jefferson, challenged a sitting President, John Adams, for the top office, but each was the leader of an opposing party. The electoral system was completely different back then; the candidate with the most votes was elected President, and the candidate with the second most votes became Vice President. The 12th Amendment got rid of that system in 1804.

The closer parallel to the Trump-Pence situation is when President Franklin D. Roosevelt ran for a third term in 1940, and Vice President John Nance Garner challenged him for the Democratic nomination. Six years into the job, Garner had come to represent a group of conservative Democrats who believed FDR’s New Deal was federal overreach. Nancy Beck Young, professor of history at the University of Houston, who consulted on a PBS documentary about Garner, tells TIME that his main concerns were deficit spending and that the federal government was supporting autoworkers striking against General Motors in Michigan. Garner also opposed FDR’s effort to increase the number of Justices on the Supreme Court.

TIME summed up the tensions in a March 20, 1939, cover story headlined UNDECLARED WAR: “Party

rebellion is no new thing in U.S. history ... Rebellion by the substantial leaders of a party against their leader-in-chief is rarer. And the rebellion which John Nance Garner now leads is rarer still in that it is, save in small things, almost intangible—less a rebellion than a resistance. It is nonetheless the biggest political struggle now going on in Washington.”

But as Young puts it, “At the end of the day, Garner’s challenge to FDR was not substantive.” Come the 1940 Democratic National Convention, FDR received 946 of the delegate votes and Garner received 61. The Nazis had invaded Poland in September 1939, World War II was ramping up, and FDR’s two terms as Commander in Chief made him the clear front runner. FDR was re-elected with Henry Wallace as his running mate, and Garner retired from public life.






**PENCE WAS THE GOVERNOR** of Indiana when Trump asked him to be his running mate in 2016. The public split between the two men happened near the end of Trump’s term, amid his efforts to overturn Joe Biden’s election victory. Citing false claims of voter fraud, Trump asked Pence not to perform his constitutional duty and certify the 2020 election results on Jan. 6, 2021. Pence insisted he had no legal power to comply with Trump’s request, and as a riot of Trump supporters broke out at the Capitol, some chanted “Hang Mike Pence.”

Some analysts have called Pence’s presidential bid a long shot. Goldstein says Veeps who run for President are in a unique position. “Most Vice Presidents may have problems running for President,” he says. “You inherit the baggage of your Administration. You’re perceived as being a follower, not a leader. But one of the advantages is that you tend to inherit the support of people in the Administration and the

supporters of the President.”

That may not be the case this time, given the state of relations between Trump and Pence. The contest is on new ground in other ways, as well. When Garner mounted his challenge, FDR was running for a third term. The 22nd Amendment would limit a President to two terms, starting in 1951. Trump is still eligible. □

**THE FIELD SO FAR**  
Who’s officially running for President in 2024\*

 <b>Doug Burgum</b> N.D. governor	 <b>Chris Christie</b> Former N.J. governor	 <b>Ron DeSantis</b> Fla. governor
 <b>Larry Elder</b> Talk-radio host	 <b>Nikki Haley</b> Former S.C. governor	 <b>Asa Hutchinson</b> Former Ark. governor
 <b>Mike Pence</b> Former Vice President	 <b>Vivek Ramaswamy</b> Entrepreneur	 <b>Tim Scott</b> S.C. Senator
 <b>Francis Suarez</b> Miami mayor	 <b>Donald Trump</b> Former President	 <b>Cornel West</b> Activist and scholar
 <b>Joe Biden</b> Incumbent President	 <b>Robert F. Kennedy Jr.</b> Lawyer	 <b>Marianne Williamson</b> Author

\*AS OF PRESS TIME. FOR UPDATES, KEEP AN EYE ON [TIME.COM/2024-CANDIDATES](https://www.time.com/2024-candidates)

OPENING PAGE: JUSTICE DEPARTMENT/AP; SMITH: ALEX BRANDON—AP; CANDIDATES: GETTY IMAGES (13); AP; REUTERS



## Miracle in the Amazon

Four children—one above with rescuers—were found alive on June 9 after 40 days in the Colombian rainforest following a plane crash that killed their mother and the pilot. The military had dropped food in hopes they'd find it, and their family, in the Huitoto Indigenous community, said they ate flour, seeds, and fruit. They were taken to a hospital in Bogotá to recuperate.

### THE BULLETIN

## China's college graduates—and its economy—have a problem

CHINA FACES TWIN ECONOMIC crises: an aging population and young people who are expected to support them, but can't find work. By 2035, around 400 million Chinese, or some 30% of the population, will be age 60 or older, and the ratio of workers to dependents grows ever more unfavorable as an estimated 228 million members of China's own baby-boom generation will retire over the decade. Last year, China had 2.26 working-age people supporting each senior; that's forecast to drop to 1.25 by 2042.

**THE YOUTH PROBLEM** Youth unemployment in China hit a record high in April, with 20.4% of 16-to-24-year-old job seekers unable to find work. Some 11.6 million students are set

to graduate in June, entering a labor market that looks increasingly bleak. "Youth unemployment is a more pressing issue than the aging population," says Keju Jin, an associate professor at the London School of Economics.

**SERVICE JOBS** Raising retirement ages is one real, if controversial, option. But for new graduates, the most acute problem is that the available jobs are "beneath" them. China suffers from a skills mismatch: factories have faced worker shortages while graduates are bereft of opportunities commensurate with their proficiency. The Chinese government is pivoting toward vocational training and expanding the service sector, which accounts for less than half of jobs in China, compared

with roughly 80% in Japan and the U.S. "Graduates will have to lower their standards and work in sectors that they wouldn't necessarily have aspired to," says Jane Golley, an expert on Chinese economics at the Australian National University.

**ECONOMIC OUTLOOK** It's especially problematic because young people in China account for nearly 20% of consumption, according to a Goldman Sachs analysis, meaning youth joblessness disproportionately impacts growth targets and the nation's coffers. The grim economic outlook has already prompted local governments to slash social services, sparking rare public protests earlier this year. —CHARLIE CAMPBELL

## RETIRING

**Wheel of Fortune** co-host Pat Sajak after the show's 41st season, which begins in September, he announced June 12.

## RESIGNED

Former U.K. Prime Minister Boris Johnson from Parliament, on June 9, following an investigation into misleading statements he made about **government parties during the pandemic**.



## DIED

- ▶ **Brazilian singer Astrud Gilberto** (above), best known for "The Girl From Ipanema," on June 5 at 83.
- ▶ Former Prime Minister of Italy and media mogul **Silvio Berlusconi** on June 12 at 86.
- ▶ **The Rev. Pat Robertson**, a Baptist minister and broadcaster who helped evangelicals to political power, on June 8 at 93.
- ▶ **"Unabomber" Ted Kaczynski**, by suicide in federal prison, on June 10 at 81.

## ARRESTED

Scotland's former leader Nicola Sturgeon on June 11 by police **investigating alleged financial misconduct** tied to the Scottish Nationalist Party. She says she's innocent.

## ANNOUNCED

Legislation that would **ban Nazi symbols in Australia**, by Attorney General Mark Dreyfus on June 8.

## DIED

## Tori Bowie

*Tragic reminder of a maternal-health crisis*

BY ALLYSON FELIX

MY FORMER U.S. TRACK-AND-FIELD TEAMMATE TORI BOWIE was a beautiful runner. Effortless. At the Rio Olympics, I ran the second leg of the 4 × 100 relay. Tori was the anchor. When she got the baton, I remember thinking, "It's over." She just accelerated. At the 2017 World Championships in London, Tori won the 100-m title, earning the title of "world's fastest woman."

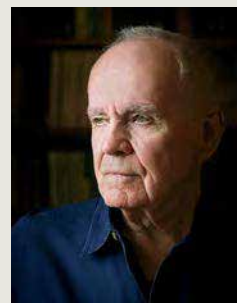
Tori was 32 when she was found dead on May 2. An autopsy, the results of which became public on June 13, cited possible complications including seizures brought on by preeclampsia, a high-blood-pressure disorder that can occur during pregnancy. I developed preeclampsia during my pregnancy with my daughter. The doctors sent me to the hospital, where I had an emergency C-section at 32 weeks. I was unsure if I was going to make it.

Like so many Black women, I was unaware of the risks I faced. About five days before I gave birth, I mentioned at Thanksgiving dinner that my feet were swollen. My cousin said she also had swollen feet. Not once did someone say, "That's one of the indicators of preeclampsia." None of us knew. According to the CDC, in 2021 the maternal-mortality rate for Black women was 2.6 times the rate for white women. Serena Williams had near-death complications during her pregnancy. Beyoncé developed preeclampsia. Three gold medalists from that 4 × 100 relay team in Rio—all Black women—had serious complications during pregnancy. We're dealing with a Black maternal-health crisis. I hate that it takes Tori's tragic passing to get people to pay attention to it. But we need that wake-up call. I'm hopeful that Tori, who stood on the podium at Rio, gold around her neck and sweetness in her soul, won't die in vain. —AS TOLD TO SEAN GREGORY

*Felix is the most decorated U.S. track-and-field athlete of all time, and co-founder and president of Saysh*



*Bowie at the 2017 World Championships in London*



## DIED

Cormac McCarthy  
*American voice*

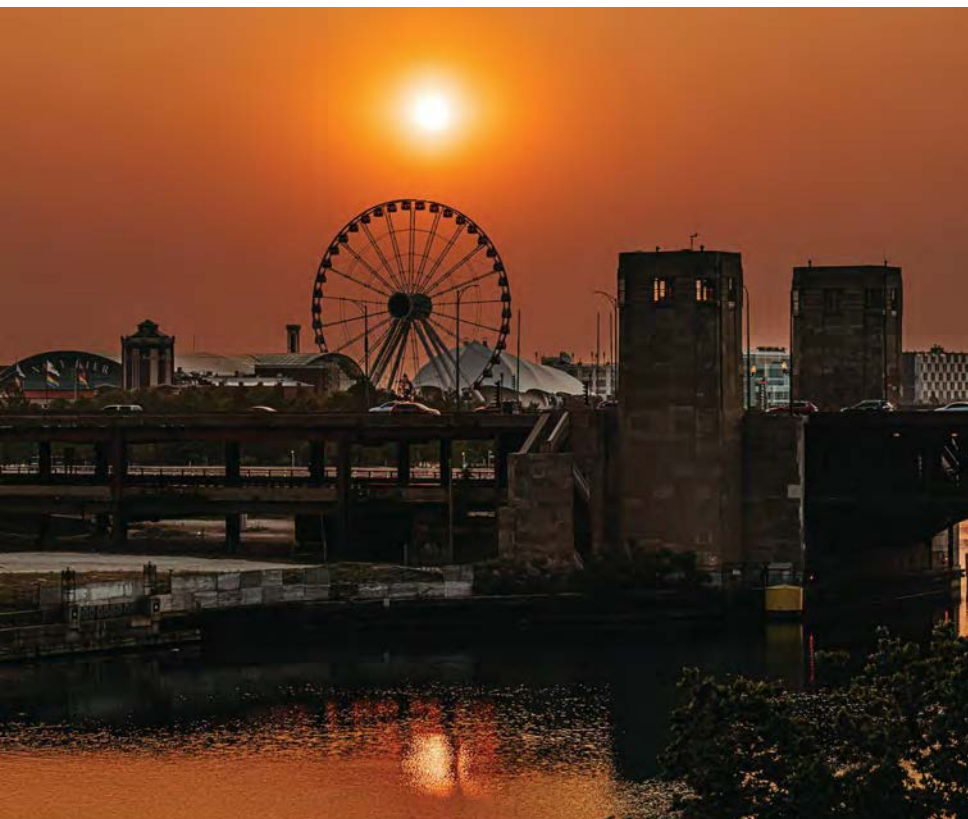
Cormac McCarthy, the Pulitzer Prize-winning author of often grisly, hypermasculine fiction, died on June 13 at 89, in his Santa Fe, N.M., home. One of the most acclaimed—if reclusive—American writers of the past 50 years, McCarthy's darkest fiction centered on outsiders attempting to survive in violent worlds. McCarthy wrote a dozen novels since 1965. The 1981 MacArthur fellow, who was hailed by the foundation as the author of "distinctively American fiction in the southern gothic and epic western traditions," also wrote screenplays, short stories, and plays.

—Annabel Gutterman

## 6 ESSENTIAL READS

- ▶ **Blood Meridian** (1985)
- ▶ **All the Pretty Horses** (1992)
- ▶ **No Country for Old Men** (2005)
- ▶ **The Road** (2006)
- ▶ **The Passenger** and **Stella Maris** (2022)





## CLIMATE

# Confronting wildfire smoke—and its meaning

THE CAUSE OF THE HAZE WAS simple enough. As hundreds of wildfires burned in central Canada in early June, exacerbated by dry conditions and warm temperatures, cities across the eastern U.S. saw thick smog and record air pollution as minute particles hopped a ride on a breeze traveling north to south. “All the smoke that gets deposited up in the air gets caught in the wind flow and pushed out into the States,” says Tom Kines, a senior meteorologist at AccuWeather. “These fires are still burning up there. They’re still putting smoke into the sky, and as long as you have a source of smoke it’s going to be an issue.”

But if the science was simple, the scale was staggering: over 200 out-of-control blazes; New York City registering its worst air-quality readings in recorded history. In a place unaccustomed to wildfires, the emotional impact was as unsettling as the sore throats that had people digging out N95 masks from the long slog of COVID-19. This time the hazard was something you could see, and a reminder of what a warming world brings. The urgency was as close as the air we breathe. —ANISHA KOHLI

### **Clockwise from top left:**

*Waiting for the subway, mask on, in New York City on June 7*

*A horse is bathed in Elmont, N.Y., on June 8; days before the June 10 Belmont Stakes, training was paused*

*Chicago’s Navy Pier on June 8*

*The Lincoln Memorial pool reflects a smoky sky in Washington, D.C., on June 7*

PHOTOGRAPHS BY DAVID DEE DELGADO—GETTY IMAGES; AL BELLO—GETTY IMAGES; JAMIE KELTER DAVIS—BLOOMBERG/GETTY IMAGES; LEAH MILLIS—REUTERS

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2024 ELECTION

## Inside the very online campaign of RFK Jr.

BY VERA BERGENGRUEN/LOS ANGELES

BOBBY KENNEDY JR. IS STILL TALKING. UP IN THE HILLS of Los Angeles, in a house studded with family memorabilia, the scion of the Kennedy clan and Democratic presidential candidate has been expounding for 90 minutes on everything from Latin American populism to the CIA, from cryptocurrency to the war in Ukraine. His phone is ping-pong with messages from politicians and Twitter celebrities, and he needs to jump on a flight to Las Vegas, where he'll address a tech convention. But Kennedy waves off his wife, actor Cheryl Hines, as she pops into the living room to remind him he still needs to pack. He wants to talk about how people are finally listening to him. "I am constantly surprised by it," Kennedy says of the attention to his long-shot campaign. "It's just very weird."

*Weird* is one word for Kennedy's bid, which has won support from figures as disparate as Twitter founder Jack Dorsey, quarterback Aaron Rodgers, actor Alicia Silverstone, and conspiracy theorist Alex Jones. It's a guerrilla operation staffed by longtime friends and colleagues from Kennedy's many previous lives—as an environmental lawyer, prolific author, master falconer, Hollywood husband, and anti-vaccine crusader. So far, the candidate has spent more time chatting on podcasts and livestreams than visiting with voters. Instead of dropping in on New Hampshire coffee shops, he's given a speech at a Miami Bitcoin conference, appeared on Twitter Spaces with Elon Musk, and is slated to be interviewed on June 14 on Joe Rogan's wildly popular podcast.

More striking than the medium is the message—a kind of MAGA for Democrats that stands in stark contrast to the optimism that defined the campaigns of his father and uncle. Kennedy sounds simultaneously stuck in the past and jarringly online, his worldview dark and suspicious. He speaks about a time when the country's waters were not polluted, pharmaceutical companies did not poison children, bioweapons did not threaten to destroy humanity, and people trusted the government not to lie to or silence them. "I feel like my country is being taken away from me," he tells TIME. "I want to restore in many ways the America of my youth, the America I was brought up in."

It may be dismissed as a vanity project, but Kennedy is tapping into something. Up to 20% of Democrats pick him in early presidential-primary polls, and many more say they would consider supporting him. Some of this may be the enduring draw of his name. But the issues he has inveighed about for ages have attracted an unlikely coalition of true believers, cynical right-wing personalities, and contrarian tech bros. Kennedy's most eager cheerleaders have been on the right, where he built a following through his opposition to COVID-19 mandates. Fox News has aired dozens of segments about him, including a full-length documentary.



▲  
*Kennedy speaks at a January 2022 protest in Washington against COVID-19 vaccine mandates*

"A lot of people who are supporting me do not agree with me on every issue," he says.

Which is fine with Kennedy. "He's desperate to talk to the American public, and he's out there doing it every day, going on every platform that will let him on," says Tony Lyons, his friend and publisher, who is now working on a super PAC backing his campaign. "I think he really believes that this is his moment, and that the American people are ready for it."

**ROBERT F. KENNEDY JR.**, age 69, is the fifth member of the Kennedy clan to run for President, and his campaign has sought to capitalize with a heavy dose of 1960s nostalgia, from vintage signs to constant references to "my uncle" and "my father." Watching him hold forth with a cup of tea in his living room, his three dogs playing by his feet, feels like looking through a fun-house mirror at a figure both familiar and distorted. He is a vision of what his father might have looked like had he been allowed to grow old, with



the same rolled-up sleeves, sharp blue eyes, and weathered tan. His speeches are delivered in a voice strained by spasmodic dysphonia, a vocal disorder that came on suddenly when he was 42, and which he has suggested is a side effect of the flu vaccine. While he usually goes by Bobby, like his father, his campaign decided to go with the more formal Robert.

In a corner of the living room, there's a picture of his father, beaming in a bright red snowsuit, on a framed 1965 cover of *Life* magazine celebrating his summit of a Canadian peak, which was rechristened Mount Kennedy. Across the room hangs his dad's voter-registration card. A bronze bust of his uncle, President John F. Kennedy, keeps watch from a console. An enlarged black-and-white photo on a wall shows 7-year-old Bobby Jr. in the Oval Office in 1961.

Kennedy's life has been defined by these two men, their violent deaths, and the legacy they bequeathed. The third of Robert and Ethel Kennedy's 11 children, Bobby Jr. was 9 when

his uncle was assassinated in Dallas, and 14 when his father was fatally shot in the kitchen of a Los Angeles hotel in 1968. "I hate to use the words *golden boy* or *chosen one*," says Dick Russell, a longtime colleague who just published a biography titled *The Real RFK Jr.: Trials of a Truth Warrior*. "But he was the one in the family who was kind of looked to as the one to carry that mantle."

After his father was killed, Kennedy "struggled to be a grownup," as he puts it. He was kicked out of boarding schools and busted for marijuana possession, though he still attended Harvard. He failed the bar exam and struggled with addiction. In the early 1980s, after being charged with heroin possession, he entered a drug-rehab facility.

While volunteering for an environmental nonprofit during his probation period, he found the cause to which he would dedicate much of his life. Kennedy threw himself into environmental law, fighting to clean up the Hudson River and prosecute polluters. He created a legal clinic at New York's Pace University that enlisted law students to work on environmental cases, which became a model for projects around the country, and received accolades for his work focused on Indigenous communities. A 1995 cover of *New York* magazine hailed him as "The Kennedy Who Matters."

He turned down opportunities to run for office, saying he needed to focus on his six children. He continued to sue corporations he saw as polluting for profit: coal, oil, pesticides. Then, in the 2000s, he turned his attention to vaccines after being contacted by parents who claimed their children had been injured by them. Kennedy "went down a wormhole," as he put it to his biographer. He reconsidered his son's peanut allergies and his experience as a summer-camp counselor. ("I never saw anybody with autism," he says.)

Over time, perceptions of Kennedy shifted from widely respected environmental crusader to conspiratorial outcast. He joined a struggling nonprofit called the World Mercury Project in 2016 and rebranded it as Children's Health Defense, which became one of the country's largest antivaccination advocacy groups. It falsely claims that a variety of childhood illnesses are being caused by the ingredients in vaccines, as well as fluoride, acetaminophen, and 5G wireless technology. Kennedy gave speeches, wrote articles, and produced videos claiming that vaccines were "making our children dumber and ... giving them injuries." He saw the ensuing criticism from scientists and public-health agencies as confirmation that he was right. Pharmaceutical companies were pushing harmful substances on children, he argued, and U.S. regulators were lying about it the same way they had about river pollution.

Invitations for interviews and public speeches dried up. "Once I started talking about vaccines, they didn't just censor me on vaccines, they censored me on everything," he says. In 2009, the Obama Administration reportedly briefly considered him for an EPA appointment, but decided it would be too controversial. In 2016, he met with the Trump Administration about a post on a vaccine commission, which also did not materialize.

**'Running  
for  
President  
makes  
it much  
more  
difficult  
for people  
to censor  
me.'**

—ROBERT F.  
KENNEDY JR.



▲  
*The Kennedy family, left, in 1962; Bobby Jr., right, in the Oval Office*

Kennedy became more vocal about other theories: that the 2004 election had been stolen; that the CIA had killed his father; that 5G has been set up “to harvest our data and control our behavior.” In 2019, three members of the Kennedy family published an op-ed in which they said that while they loved him, he was “tragically wrong” about vaccines, and “part of a misinformation campaign that’s having heartbreaking—and deadly—consequences.”

The COVID-19 pandemic brought a new audience for Kennedy’s fringe views. He gained a following in online right-wing groups. The Children’s Health Defense Fund’s revenue doubled to \$6.8 million in 2020, and then again to \$16 million in 2021. That year, Kennedy published a book titled *The Real Anthony Fauci*, in which he accuses the top U.S. infectious-disease doctor of orchestrating “a historic coup d’état against Western democracy.” It sold more than a million copies. In January 2022, Kennedy was a prominent speaker at a rally at the Lincoln Memorial. Addressing a predominantly right-wing crowd of thousands, he denounced COVID-19 health measures and invoked Anne Frank to suggest that unvaccinated Americans have less freedom than Jews during the Holocaust. (He later apologized.)

It had taken decades, but Kennedy realized he finally had an audience for the causes that friends say he genuinely believes in and has championed at great personal sacrifice. “That was the first time I seriously thought about running for President,” he says. Kennedy says Hines jokes she’ll deal with the campaign by going to the Bahamas and inventing “a new kind of margarita that has Xanax in it.” At this point, he is used to his views making family members uneasy. “There’s nothing I can really do about it,” he says. “If I was worried about people not having an accurate view of me, I’d be in a state of anxiety all the time.”

**KENNEDY WAS 50 MINUTES** into an almost two-hour speech announcing his candidacy on April 19 when he first seemed to pause and take a

breath. “I want to move on to another issue that nobody’s really gonna want to talk about, but I need to,” he said from the stage of a Boston hotel, having just finished a diatribe about coal companies. “This is what happens when you censor somebody for 18 years. I got a lot to talk about.” But he did not mention the vaccine issue that has come to define him, instead railing against corporate control of politics, government, and the media. He also played up his lineage, mentioning his father and uncle more than 30 times.

Kennedy insists his campaign is a continuation of their legacy. “We have a growing number of liberals who are trying to find their way back to their roots, to Kennedy liberalism,” he says. “And I represent that better than anybody.” Along the way, he intends to court Republicans and independents. “These people who are supporting me, many of them would otherwise be supporting Donald Trump,” he says. “It’s the same way when my dad died, many of the whites who supported him went [over] to George Wallace, who was a rabid segregationist.” He adds, “What my father tried to do, and what I will try to do, is to appeal to those people, but a different side of them.”

Kennedy has long moved comfortably between political spheres. He filmed a nature documentary with Roger Ailes in the 1970s, campaigned for Hillary Clinton in 2000, and flew his family on Trump’s private jet. (“Not a great guy at all,” Kennedy says). During the pandemic, he met with Florida Governor Ron DeSantis to discuss COVID-19 restrictions. He also considers Joe Biden a “close family friend for 40 years.” The conservative Silicon Valley investor David Sacks is co-hosting a \$10,000-per-ticket dinner for Kennedy on June 15.

“Bobby is the real deal,” says John Gilmore, who worked with Kennedy on the Children’s Health Defense Fund and now runs his super PAC, American Values 2024, which has so far raised close to \$6 million. “He’s been pilloried in the press, he’s lost jobs, he’s been pushed out of organizations, he gets trashed





sometimes by members of his own family. So he's not a poser, to say the least."

The super PAC has taken out ads in newspapers, promising that Kennedy will "take back your country," but is still figuring out how to use social media to promote a candidate who has been deplatformed in the past for spreading medical misinformation. Instagram only recently reinstated his account because "he is now an active candidate for President of the United States," according to a spokesman. "Running for President makes it much more difficult for people to censor me," says Kennedy. The strategy that allies have landed on is to focus on podcasts and alternative media. Kennedy believes the 2024 election could be "decided by podcasts," and he intends to use them to full advantage. "In the same way that my uncle sort of realized that television was a good medium for him in 1960, and Trump discovered that he could communicate with these large groups of people on Twitter in 2016," Kennedy says, "I think podcasts are a good medium for me."

In the past few weeks, Kennedy has appeared on dozens of podcasts and online shows, holding conversations with actor Russell Brand, right-wing commentator Jordan Peterson, right-wing activist James O'Keefe, and Musk. "I'll talk to anybody," he says, although he recently crossed two names off that list: Steve Bannon and Jones. ("My marriage could not survive," Kennedy says. "She would kill me.") Figures on the right are especially attracted to Kennedy's jeremiads against what he sees as an increasingly authoritarian government and his criticism of U.S. support for Ukraine in its war against Russia, which he calls "a setup by the neocons and the CIA."

Whether he's talking about Ukraine, the economy, health care, or technology, Kennedy speaks in numbers and statistics; his book on Fauci had 2,194 footnotes. "People are attracted to the depth of his intellect," says his campaign manager Dennis Kucinich, the former Ohio Democrat who has his own experience as a long-shot

▲  
*Kennedy on an environmental mission to Puerto Rico in 2000, left; at an antivaccine protest in 2019*

presidential candidate. "There's no artifice about him at all, [and] he really has touched something that transcends ordinary politics."

Health experts have a different take. Kennedy's style of promoting antivaccine disinformation is effective "because it's portrayed to the public with graphs and figures and what appears to be scientific data. He has perfected the art of illusion of fact," says Michael Osterholm, the director of the Center for Infectious Disease Research and Policy at the University of Minnesota. "It would be one thing if it were merely about a point of politics, but this is about people's lives. And the consequences of promoting this kind of disinformation, as credible as it may seem, is simply dangerous."

**SO FAR, KENNEDY** has held only a handful of in-person events. Most of his campaign is online, where #Kennedy2024 has grown into one of the most confusing hashtags on the internet. At 2 a.m. on June 6, he posted a video of himself at the southern border in Arizona, criticizing Biden's immigration policies. He has a TikTok account where he offers glimpses of his life or views on assorted topics. (One video instructed viewers how to catch crabs on the beach.) He's been following the advice of Tinder founder Sean Rad, who Kennedy says has been advising his campaign, and his daughter-in-law Amaryllis Fox, an author and former CIA agent who has been running his digital strategy. "She said with TikTok, you want to put sort of un-expurgated, very raw footage," Kennedy notes.

The candidate seems to be basking in a sense of destiny. "I've studied certain realignments that have occurred throughout American history," he says. "And I think that's happening now." His vision is "the unification of left and right in a populist movement," he says. "That would be unstoppable, right?" In the end, Kennedy's long-shot candidacy may say more about the state of America in 2023 than it does about the man himself. What matters in the end isn't whether people support his campaign, he says. It matters that they're listening. □

## 5 ways to combat self-criticism

BY ANGELA HAUPT

A GREATEST-HITS SOUNDTRACK produced by self-criticism would sound something like this: *You should have done better on that project. Why isn't the house cleaner? You tanked the whole soccer game! You're a bad parent, an even worse colleague, and a sorry excuse for a friend. And you're wasting so much time right now that you'll be late—again.*

The tendency to engage in negative self-evaluation afflicts almost everyone. “People treat their self-criticism as though it’s part of themselves, like their eye color,” says Rachel Turow, a Seattle-based clinical psychologist and author of *The Self-Talk Workout*. “They say, ‘Oh, I’ve just always been my own worst critic.’ And a lot of people don’t realize how damaging it is.”

Listening to your loud inner critic is a habit—not a fixed personality trait, Turow clarifies—often exacerbated by childhood trauma, emotional abuse, bullying, sexism, homophobia, and social media use. It can also be a form of self-protection: If you’re mean to yourself, “then nobody else can hurt you as bad as you’re going to hurt yourself,” Turow says.

But there’s good reason to work on silencing self-criticism, which has been found to worsen depression, anxiety, disordered eating, juvenile delinquency, self-harm, and suicidal behavior and ideation. (In some cases, it’s a reciprocal relationship: depression also triggers self-criticism, an effect researchers have found is particularly pronounced for teen girls.) People with higher levels of self-compassion, on the other hand, are less likely to experience mental-health challenges.

Fortunately, plenty of tools can help us talk more kindly to ourselves. We asked experts to share their favorite ways to overcome critical self-talk.

### 1. Investigate the origins

The first step to thwarting self-criticism is understanding where the thoughts originated, says Tiffany Green, a psychotherapist in Chicago. When her clients say negative things about themselves, she often asks them, “Where did this come from? Who was the first person you heard say this about you?” The response tends to be revealing: maybe their mom called them lazy, or their grandmother told them they needed to lose weight. “It starts to feel like a light bulb,” Green says. “It allows them to say, ‘Maybe this doesn’t need to continue.’” The experience is **a helpful way to separate yourself from critical thoughts**, she adds, rather than accepting them as your own.



### 2. Set up a self-criticism jar

Every time you catch yourself engaging in a critical thought, throw a coin or piece of paper into a jar. Green recommends displaying it somewhere that’s ultra-visible. The goal in the beginning is to fill the jar with lots of coins, because that’s a sign that you’ve **increased your awareness of your thought patterns**—and the impact they have on your emotions and behaviors. Over the next three to six months, however, you should notice that you’re adding to it less frequently. Having a visual way to monitor your progress can be motivating and rewarding, she says.

### 3. Celebrate your wins

One of Turow’s go-to self-talk strategies is called “spot the success.” “It’s sort of the opposite of a to-do list,” she says. “It’s like a done list.” Every night before you go to bed, **write down 10 things you did that day** that benefited you, somebody



else, or the world at large. “No item is too small. You texted your friend, you got out of bed, you took your vitamin,” she notes. “It generates this sense in your brain, like, ‘I am doing these good things.’” That can be a powerful antidote to self-criticism: and the all-too-familiar feeling that you didn’t get enough done that day.

### 4. Replace your inner critic with a neutral voice

Correcting negative thoughts isn’t easy, and it doesn’t happen overnight. Green suggests first countering them with neutral thoughts; you can work your way up to the positive ones later. Imagine, for example, that you routinely criticize your hair. Instead of telling yourself it’s lush and gorgeous, try this: “What if I’m wrong? What if my hair is fine?” That delivers you to a place where you can **question the negative thought**—and it’s more realistic (and genuine) than forcing yourself to embrace a positive attitude.



### 5. Look for the (gentle) lessons

Self-criticism can sometimes contain important information and even prove helpful, Turow says. You might, for instance, be hard on yourself for not keeping in good touch with your friends. “That’s valuable information,” she says. “I think it’s ultimately coming from this place inside that does want to nourish your friendships.” Or, if you’re upset with yourself for not making it to the gym, that could signal a desire for a healthier lifestyle. Turow advises **noticing the criticism gently, and then learning from it**. Shift how you talk to yourself, and reframe the message. Instead of “You suck at keeping in touch,” try “This is really important to me. I wonder how I can make it happen more often.”



# The View

ECONOMY

## GOOD JOBS ARE GOOD BUSINESS

BY ZEYNEP TON

There's a lot more to a good job than making money. But for more than 50 million Americans who work in low-wage jobs, pay matters a lot. Low and inconsistent pay wreaks havoc on workers' lives, leaving no margin for emergencies and increasing stress, which leads to more errors. As a result, many find themselves in a vicious cycle: low pay hurts their performance, keeping them stuck in low-paying jobs. ▶

INSIDE

IAN BREMMER ON IRAN'S  
ECONOMIC TINDERBOX

A THREAT TO GOP STABILITY IS COMING  
FROM INSIDE THE HOUSE

LEARNING TO UNDERSTAND  
A PAINFUL PAST

In my research and work with more than two dozen companies at the Good Jobs Institute, I've seen that companies, too, pay a steep price for low pay. Low pay drives high employee turnover, and in settings like senior living, call centers, warehouses, retail stores, and restaurants, we have seen some companies replace their entire frontline workforce annually. Many executives I've met didn't think costs of turnover were high enough to justify higher pay—but they had never even quantified the full costs of turnover to begin with.

At most companies with which the Good Jobs Institute has worked, employers poured the equivalent of 10% to 25% of their labor budget into replacement costs—the costs to recruit, train, and reach baseline productivity, only to start all over again when employees leave. But those costs pale in comparison with costs from the inevitable poor operational execution that takes place when there is high turnover: lower sales from mistakes, slow service, and customer dissatisfaction; higher product costs from more errors, overtime, and reduced labor productivity.

High turnover also hurts company performance. Managers are always fighting fires, never having enough time to hire and train well. Inevitably, these companies don't trust their frontliners to do a good job, and they design the jobs for interchangeable pairs of hands rather than humans with brains, wasting so much talent and potential along the way. Understaffing is common, which causes even more problems and creates anxiety for employees and their managers. Overworked managers then leave or ask to be demoted. Expectations become dismally low.

High turnover is not just expensive. It's ruinous. And a system based on low pay and high turnover is a weak match for what's coming. With more retirements, it's not going to get any easier to hire and retain frontline workers. A leaked Amazon memo from 2022 revealed that the company had to change its expansion plans because, given its high turnover rate, it would simply run out of people within a few years. With frontline employees in high demand and new minimum-wage



*Demonstrators at an Amazon union rally in Staten Island, N.Y., on April 11*

regulations, continuously rising wages are inevitable, and companies will face increasing costs for the same output.

**THE GOOD NEWS:** companies can change. Walmart's Sam's Club, call centers at Quest Diagnostics, and pet-store chain Mud Bay improved pay and schedules, and redesigned their systems to improve productivity and service. In 2019, Sam's Club increased pay by \$5 to \$7 an hour for several key roles and, from 2020 to 2022, further increased hourly pay for all employees by 18%. In 2016, Quest Diagnostics raised starting pay for its call-center workers from \$13 to \$14 and implemented tenure-based increases. Mud Bay, a chain with 2% profit margins, increased hourly pay 24% over three years. By 2022, it was able to pay all its employees a living wage, according to MIT's living-wage calculator. These companies didn't just raise pay, they made employees' work more valuable, making the pay investment worthy.

So, what were the results? Within two years, Sam's Club reduced hourly workers' turnover by 25%. Manager turnover dropped even more. Within 18 months, Quest Diagnostics reduced hourly turnover by more than 50%,

and absenteeism dropped. Within three years, Mud Bay reduced turnover by 35%.

In addition to lower turnover costs, all these companies saw higher sales and improved productivity. At Sam's Club, productivity increased 16%, customer loyalty increased 7%, and sales grew nearly 15% without opening any new stores. At Quest, overall costs decreased \$2 million, \$1.3 million of which came from ideas from the reps. Customers received better service, with fewer transfers and faster answer rates. At Mud Bay, employees were able to generate 12% higher sales per labor hour and 25% higher sales per sq. ft. (compared with an average 9% increase for the industry at the time). We've seen similar results in small restaurants and bakeries.

Leaders at these companies realized that to win with their customers and grow, they couldn't afford high employee turnover. Instead of asking, "How much will it cost to increase pay?" they asked a more enlightened question: "What will be the cost to my competitors if we get this right, and they don't?"

*Ton is a Professor of the Practice at MIT Sloan School of Management*

## Iran remains the Middle East's dangerous tinderbox



UNDER PRESSURE from Western sanctions, Iran is actively in search of new international trade and investment partners, and it has made some progress. In particular, a Chinese-brokered deal to normalize relations with regional rival Saudi Arabia has created commercial opportunities, and its willingness to provide Russia with drones and ammunition for use in Ukraine has created new openings too. It also helps Iran's government that the nationwide surge of protests that followed the death in police custody last September of a young woman arrested for wearing her headscarf too loosely has largely died down, thanks mainly to the willingness of authorities to arrest large numbers of people and to execute a handful of them publicly.

But Iran's leaders know their reprieve from pressure will prove temporary. Economic strain continues. Thanks mainly to sanctions, Iran's currency has lost more than 90% of its value against the dollar over the past decade, and price inflation remains above 40%. Benefits from better relations with the Saudis will take time to materialize, and the rapprochement will likely remain tentative. President Ebrahim Raisi's "Turn to the East" strategy is intended to bring major new infrastructure investment from both Russia and, more importantly, China, but Russia's own economic outlook remains perilous, a wartime

partnership with the Kremlin will bring new sanctions on Iran, and the Chinese can buy large volumes of heavily discounted oil from Russia, leaving Iran out in the cold.

Continuing hardship ensures that intense public anger and spontaneous protests can re-erupt at any time. In particular, though last year's protesters have moved off the streets, many Iranian women and girls still refuse to

and repression are all too familiar. Yet, lurking in the background are both hope and dread that fundamental change may not be far away.

**IN THE ISLAMIC REPUBLIC'S** 44-year history, there has been just one transfer of supreme power. In 1989, the death of Ayatollah Ruhollah Khomeini triggered a transition to the current leader, Ali Khamenei, who has remained in power ever

since. The octogenarian Khamenei is a cancer survivor rumored to be in declining health, and there is no clear heir apparent for the clerical establishment and political elite to elevate. Today, everyone in Iran with access to wealth, power, and privilege must wonder how succession might alter his fortunes, and a political transition will raise public expectations for change among those exhausted by hardship and social repression.

Finally, there are the continuing risks created by Iran's nuclear program and the inability

of Iranian and Western leaders to broker a new deal over its future. Here, too, the tensions aren't new, but ever higher levels of uranium enrichment bring closer the day when Israeli and American policymakers must decide how to block Iran from acquiring a nuclear weapon that could trigger a dangerous arms race in the Middle East.

It might appear that the problems Iran creates for itself and those it poses for outsiders never change. Yet the risk is rising that Iran will soon become one of the world's most dangerous wild cards. □



*Iran's Foreign Minister Hossein Amir-Abdollahian, left, with Saudi and Chinese ministers in Beijing on April 6*

wear mandatory headscarves, and the government has worked to re-establish its credibility with religious conservatives by pushing hard on enforcement. Police have issued tickets to uncovered women using public transport or even riding in private automobiles, and businesses are sometimes fined for serving them. With so much built-up resentment and economic pain, another arrest gone wrong could release another wave of unrest even harder to contain.

None of this is new for Iran. A feeble economy and cycles of protest



<  
3M's Cordova  
chemical plant on the  
Mississippi River



## Health Matters By Jeffrey Kluger

EDITOR AT LARGE

IN 2023, IT'S HARD TO GET AWAY from breaking news about PFAS, a class of more than 12,000 chemicals used in countless products from non-stick pans to cosmetics to food packaging. These so-called forever chemicals have been linked to a host of physical ills, including increased risk of certain cancers, high cholesterol, hormonal disruption, immune-system problems, decreased fertility, and developmental delays in children.

PFAS, first developed in the 1940s, weren't always so well known by people outside of the industries manufacturing them. But a new study analyzing industry documents published in *Annals of Global Health* reveals just how much and how early the two biggest manufacturers of the chemicals—3M and DuPont—knew about the potential harms the products posed. As the researchers found, **3M and DuPont had preliminary evidence of PFAS toxicity as early as the 1960s**, and knew broadly about the dangers the chemicals pose by 1970—two decades before the public really became aware of the chemicals' health risks.

The study also reveals that the tactics the companies used to cover up

what they knew about the toxicity of PFAS—suppressing unfavorable research, distorting public disclosure of research that did leak out, withholding information from employees who might have been exposed to dangerous levels of PFAS—are reminiscent of those used by the tobacco and fossil-fuel industries.

“Having access to these documents allows us to see what the manufacturers knew and when, but also how polluting industries keep critical public health information private,” said Dr. Nadia Gaber, an emergency-medicine resident and the first author of the paper, in a statement. “This research is important to inform policy and move us towards a precautionary rather than a reactionary principle of chemical regulation.”

In an email to TIME, DuPont said, in part, “In 2019, DuPont de Nemours

**A new study reveals how much and how early companies knew about potential harms of PFAS**

was established as a new multi-industrial specialty products company. DuPont de Nemours has never manufactured PFOA or PFOS [two types of PFAS]. DuPont de Nemours cannot comment on allegations contained in the UCSF paper that relate to historical ... matters.” 3M emailed a comment as well, stating, “The paper is largely comprised of previously published documents—as evidenced by the paper’s references section, which includes citations dating back as far as 1962. 3M has previously addressed many of the mischaracterizations of these documents in previous reporting.”

### THE SECRETS BEGIN

It was in 1961 that the dissembling around the dangers of PFAS started, according to the study. That year the *Canadian Medical Association Journal* published a report of workers in PFAS factories who fell ill after smoking cigarettes that had been contaminated with PFAS-based Teflon. Shortly after, an account surfaced of a worker on a U.S. Air Force base who somehow came into possession of a similarly contaminated cigarette, smoked it, and died on site. DuPont and the Air Force dismissed the account as a rumor—and the author of the original Canadian paper, apparently bowing to industry and military pressure, posted a retraction, saying in part, “all rumors of death are false.”

But the researchers say DuPont knew better. In 1961, a DuPont study found Teflon exposure led to liver enlargement in rats, with the in-house scientist recommending “contact with the skin should be strictly avoided.” In 1962 a company scientist conceded internally that Teflon may be reactive to excessive heat and handling. And in 1970, researchers at a West Virginia DuPont plant found PFAS chemicals could be “highly toxic when inhaled and moderately toxic when ingested.” None of these findings were made public.

Among the human studies the companies conducted, researchers found “a possible increase in prostate cancers”

had been reported among employees at one manufacturing plant. Other findings showed elevated liver enzymes in 61% of 30 workers tested, indicating inflammation and damage to cells in the liver.

### WORKING THE PUBLIC

As the evidence of the dangers mounted, the authors say, 3M and DuPont began covering up what they knew. In 1991, researchers unaffiliated with the companies began detecting PFAS in groundwater. The companies responded with a joint press release stating that internal studies showed the chemicals had “no known toxic or ill health effects in humans at concentration levels detected.” In 2000, health officials in Lubeck, W.Va., detected several forms of PFAS in drinking water. In response, DuPont assured the officials that all was well. The officials repeated the company line, stating, “DuPont reports that it has toxicological and epidemiological data to support confidence that exposure guidelines established by DuPont are protective of human health.”

But by now, the genie was out of the bottle. Researchers unaffiliated with the companies were publishing more and more studies on the risks of PFAS, linking it to increased risk of certain cancers and other ills; one lawsuit had already been adjudicated, and a second case was coming. And in 2000, 3M even announced it would no longer be manufacturing the PFAS-based fabric-protecting Scotchgard.

Last year, the EPA set permissible levels for PFOA and PFOS in drinking water, and it is working to do the same with six more types by 2026. Public demand is leading to a growing market for PFAS-free products, leaving companies like DuPont and 3M either to abandon—or at least curb—the chemicals or get left behind. As for the companies’ reputations, studies like the just-released one might make for a difficult cleanup job there too.



## The D.C. Brief By Philip Elliott

WASHINGTON CORRESPONDENT

SPEAKER KEVIN MCCARTHY finally realized he was pinned down. A handful of his fellow Republicans effectively took the House floor hostage on June 6 and were not equipped to have a real negotiation. Rather than continue an active standoff for even another day, the House chief decided to pack it in, regroup in private, and try to find a durable détente with the far-right faction of his party.

“There’s a little chaos going on,” McCarthy conceded on June 7, employing a massive understatement. He then sent everyone home.

The stalled measures on the table would have blocked the feds from banning gas stoves—not a real threat, to be clear—and given Congress veto power over any regulations with consumer costs topping \$100 million. Democratic opposition in the Senate and the White House all but doomed them, but the stunt was sufficient to embarrass McCarthy and embolden other conservatives uneasy with a deal the Speaker recently struck with President Joe Biden over the debt ceiling. **The substance of the dispute didn’t matter. It was about the theater.**

For the moment, McCarthy dodged a noose of his own knitting. One of the conditions he accepted back in January to secure enough votes to become Speaker was an agreement that any of his members could, at any time, call a vote of no confidence. That proffer left McCarthy starting as one of the weakest Speakers in decades, and his right flank knew it.

In a twist unseen since 2002, 11 Republicans joined with unified

Democrats to tank the rules packages for debate on the pro-gas-stoves and anti-federal-regs measures. The betrayal left the GOP leadership team shocked and on shaky ground with its rank and file.

An agitated McCarthy told allies that he didn’t even know what the troublemakers wanted; they hadn’t articulated any hard demands and seemed more interested in blowing off steam than in securing concessions. Still, McCarthy realized he was boxed in, and the failure of

those messaging bills were the least of his worries. Although the rebels stopped short of kicking McCarthy to the curb just yet, they put him on high alert.

The biggest obstacle to the firebrands remains a serious one, though: no one is waiting in the wings to

step up should McCarthy appear mortally wounded. His lieutenants seem to be holding the loyalty line. The lack of an apparent understudy may help McCarthy survive. At least for now.

Even so, the Speaker remains beholden to a far-right flank. Perhaps it doesn’t even matter who actually holds the gavel. The real power in the House rests with the handful of lawmakers who now feel plenty aggrieved over perceived broken promises to cut spending in exchange for the job. Roughing up a Speaker to remind him that he needs them on even the most routine moves is a much more appealing prize—and it’s one they can get almost anytime.

**‘How can you govern if you can’t pass a rule?’**

—REPRESENTATIVE  
KEN BUCK (R., COLO.)



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SOCIETY

# Living with a painful past

BY CHARLOTTE FOX WEBER

I STILL HAVE THE GREEN DRESS I WORE WHEN I FIRST MET Peter Beard. It was a crisp November evening in 2004. I was 21 and had just moved to New York City. My father invited me to join him at Beard's book party at the Explorers Club. A photographer and an artist—he was sort of a big deal in the '70s. I'd never heard of him.

I felt a jolt the moment we were introduced. Beard had a clear-cut, electric face. Sixty-six years old, he was a dominating presence. "Tell me about you," he said. His focus on me was startling.

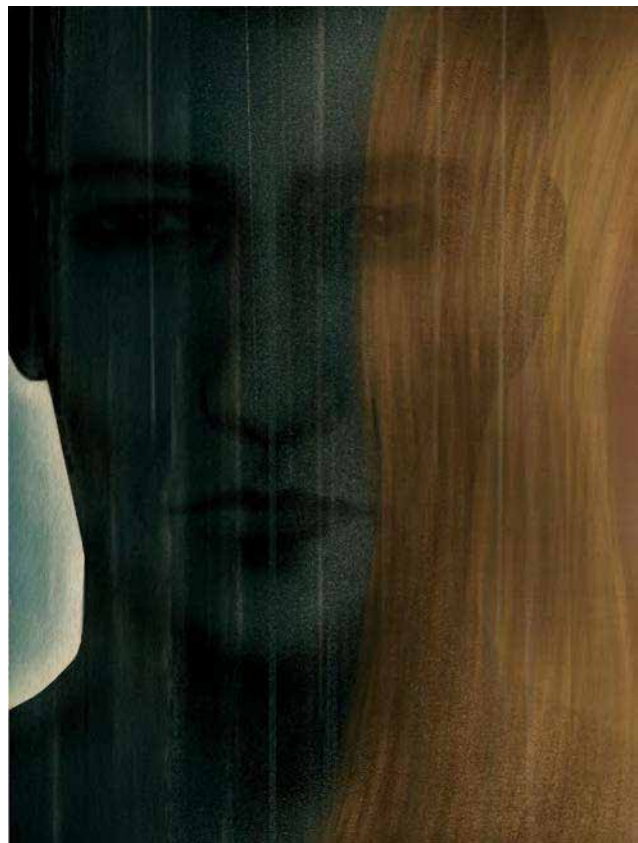
When my father left to drive home to Connecticut after the party, he assumed I'd join, offering to drop me at the apartment I shared with my friend Kristina in the Village. I told him I would stay. He questioned my choice and told me to be careful. I really believed myself when I said I would. It was already too late.

Peter Beard died in April 2020, and I have been haunted by his memory since—my own memories, but also the way the world remembers him. To most, he was a charismatic, larger-than-life womanizer whose bold, subversive art offered a degree of cover for the way he lived. Obituaries classified him as a playboy, a bad-boy bon vivant. I knew him as those things, but also so much more. A biography by Graham Boynton, *Wild: The Life of Peter Beard*, released last fall, included my story; the author, who defied our agreement to allow me to control what he used from our conversation, calls me Nancy C. (Boynton denies violating any agreement. "I told a very small part of her story, carefully concealing her identity," he says.) Another biography of Beard is due to be published in July. I've never spoken with the author. Instead, I'll tell my story in my own words.

**BEARD WAS MARRIED**, but he convinced me that he and his wife had an understanding that allowed him to do whatever he pleased, and I accepted this.

Soon we were seeing each other regularly and intensely. Unlike men my own age, Beard was unafraid to show his interest. He played Leonard Cohen songs on my voice mail, and he called at all hours. "The girl of a thousand faces!" he would say, looking at me. I felt seen, elevated.

I was curious about his work. Most of his images were of African wildlife, and he imbued them with an eerie combination of beastliness and beauty. Lions ripped apart smaller creatures. Crocodiles appeared to snack on human limbs. He smudged his pictures with blood—typically animal blood from a butcher, but sometimes his own. He also photographed women: gaunt models curved around rocks, stretching out their sharp and bony bodies, lusting after the ground itself. Beard showed the forces of nature, but really, he showed that it was he who was in charge.



I soon learned he was excessive, extreme, and full of contradictions, as disarming as he was horrifying. We would meet in restaurants, in clubs, at my apartment, at his, at his house in Montauk. He took me to parties with musicians and movie stars. Constantly imbibing alcohol, amphetamines, and copious amounts of cocaine, cigarettes, and weed, he could stay up until 6 a.m. easily, but then he would take an Ambien and sleep all day. He never carried a wallet—he behaved like a child, making other people take care of him. He could be wildly generous in spirit, but I remember having to pay for anything that required cash.

I knew from the time I'd met him he was both wonderful and revolting, and I always believed another dose of him would determine which he really was.

Kristina hated him and the way we groped each other in public. As tension between them increased, so did my willingness to focus entirely on him, but I constructed boundaries to persuade myself I was in control. I would see him, but only in public. I would kiss him, but just once. Each rule I set, I broke. A romance, an affair—whatever you want to call it, we were fully, entirely involved.

**THE FIRST TIME HE BIT ME** was in his apartment, with his daughter asleep in the next room. His wife was away. "Shhh," he instructed me.





We sat on a Kenyan blanket atop a daybed, and he mauled me through the night. Digging his nails into my back, drawing blood, tugging me sharply. And, worst, biting my flesh. Throughout, he told me to be quiet. The most awful part for me is that I didn't say stop. He bit harder and harder as the night went on, and neither of us said anything about it. He only gave me compliments.

"You're such a good sport," he said. I felt some kind of value in enduring the pain without crying out. All of it hurt. I wanted it to stop. But I took pride in letting him do as he pleased. It went on and on.

When dawn broke and he popped his Ambien, I left. His birthday was that day—Jan. 22—and I was expected at dinner.

At home, I looked in the rusted mirror of the bathroom I shared with Kristina and scared myself. There were bite marks and bruises everywhere, scratches on my face, blood all over my torso. It was so much worse than I had let myself comprehend. I took myself to bed and lay in the dark. By late morning, Kristina found my clothes on the bathroom floor, stained with blood. I woke up in terrible pain. This isn't normal, I kept thinking, realizing, shuddering. It wasn't OK.

It was a frigid winter. I told Kristina my skin was cracked because of the dry air. We both knew my explanation made no sense. Later that day, the surreal terror of the night hanging over

me, I was with her when my phone rang. It was Beard. "That was quite a night," he said, his voice low and earnest. "We got a little carried away."

"Yes, it was a little crazy," I said. But nothing more. I waited for him to say something reassuring.

"When you come tonight, cover up. I don't want people seeing the marks. OK?"

I promised. Somehow I felt closer to him, conspiring with him to deal with this situation. I told myself he cared. That we'd gotten carried away. But "we"? I never asked for violence, and I never returned it.

Kristina was upset. "This is clearly out of control," she said. "He's abusing you." But I was adamant that we attend his party, so I put on a black turtleneck dress, and we went.

Beard was turning 67. When we arrived, there were about a dozen scantily dressed women already there. I was seated next to the birthday boy, and I remember sulking quietly, hoping he would ask how I was. He only seemed irritated. I took myself to the bathroom, enraged, and when I returned, another woman was in my seat. Beard dispatched me to the far end of the table.

In the days following the party, I decided I'd ignore him whenever he reached out again, which worked for a while. But soon I gave in. We met, and he was violent again. Only this time, it felt reparative. We were making it more bearable by normalizing it. I was so desperate to make things OK between us, I was willing to tolerate just about anything. He'd gotten under my skin in every sense.

**IT'S A FAMILIAR CYCLE:** violence, followed by doting attention, followed by violence again.

After a bad night, the bites became infected. The wounds hurt from the inside, and an aching burn persisted for days. I went to a physician on Madison Avenue, where I studied an Oprah poster that said, **TURN YOUR WOUNDS INTO WISDOM.** The idea felt far away.

The doctor asked how I'd been injured. I started to cry as I explained. He asked if he could write up a report so I could press charges. I absolutely did not want to—I remember thinking Beard would laugh at me for being dramatic, and most of all, I hadn't said no.

He prescribed antibiotics for human bites. He gave me Xanax too. This all felt extreme and overwhelmingly shameful. I told

bits and pieces to my family—prouder versions—and they thought Beard was a creep who assaulted me and kept hounding me. I was deeply mortified that, in fact, I'd fallen in love with him.

Despite telling my family I would avoid him completely, I saw Beard soon after. I told him I couldn't drink because of the antibiotics. He didn't care. "Did you cut your hair?" he asked.

"No. Should I?"

**He'd  
gotten  
under  
my skin  
in every  
sense**

“No. Keep your hair long,” he said. “It’s always a mistake when women cut their hair too short.” He had no interest in understanding the pain he’d caused me.

Finally, one day, I broke down. It was summer, but it was oddly cold and raining hard. I stepped in a puddle and soaked my leg. It sounds like a small thing, but that’s what did it: it was all too much, my soggy leg and the consuming torture of the relationship. I had to end it—immediately.

In contemporary terms, I ghosted him. Maybe it was punishment for how erased I’d felt. Maybe it was a vain wish for him to feel tortured by my absence. More likely, it was because I didn’t know how to tell him how much he tormented me, how deeply I loved him, and how I couldn’t continue. I feared my own weakness. I knew if I faced him, I would get drawn in again. So I cut him off.

“I’ve clearly done something to upset you,” he rambled in one of his messages. He knew how to hunt, even how to grovel.

I decided to move to London, where I would continue my studies. I wanted to be a psychotherapist or a writer. I felt I had to leave the city—even the country—to give myself a chance. Though I kept the full story from him, my father consoled me. “You’ll feel yourself again,” he promised.

**A FEW YEARS LATER**, Beard had an exhibition at the Michael Hoppen Gallery in London. I went—I wanted to face him, to have one final encounter.

When I arrived, there was a young woman smoking in front of the gallery. “I knew Peter well, a while back,” she said. She looked jittery and uneasy. I was suddenly aware that he could have behaved this way for decades. A part of me felt bothered to recognize that I wasn’t special.

Inside, I looked at his art on the walls, the usual mix of sepia collages of models and animals, adorned with blood. The violence mixed in with sex and beauty was right there, for all the world to see. This was a person who set up scenes of depravity and near-death encounters in the name of art. He was celebrated for the access he gave his viewers to shadowy thrills—the same quality that made him so dangerous.

I approached the table where he was seated, signing various things. People swarmed.

“Charlotte Fox Weber. Oh my God.”

I was relieved by his reaction—still walking that tightrope between feeling exceptional in his eyes and feeling completely forgettable.

“Hello!”

“What happened to you? You just sort of, poof! You disappeared. What happened?” he asked.

“I know I vanished. I had to. But it’s good to see you. I wanted to see you.”

He invited me for a drink at his hotel.

“No, thank you,” I said. “You were a phase, and I’m no longer in that phase. But I’m really glad to see you and say hello after all this time.”

“Well, OK. Hello.”

“Hello. It’s good to see you.”

“You too,” he said. “Bye for now.”

“Bye for now,” I echoed.

That was the last time we spoke. Though I moved on, I did not let go. I pursued healthier relationships, trained and became a psychotherapist, formed a family of my own. But the pain didn’t exactly go away. Time does not heal everything.

**BEARD OFTEN BALKED** at the term *artist* and said he was a chronicler, a diarist, an observer. Detritus and scattered treasures lived side by side for him, in his life and in his art. For nearly 20 years, I felt those multitudes within myself—the trash and the treasures. They sat deep within me, chasing and menacing me, taking up space. Wherever I was, whatever I was doing in my life, Beard followed.

After he died, I let myself really begin to tell the story—to myself and to others. For so many years, I was stuck in my unspoken ambivalence. I struggled to find the right words, to trust the authority of my own experience, to label and make sense of the nuances. I haven’t said everything—there is always more—but I have acknowledged what happened. It’s not a story of sheer abuse, but it was traumatic and scarring. It was supersized passion, but it wasn’t a pristine romance. It was everything it was, and talking about it has helped me integrate all that happened into my life experience. I have learned that it’s OK to let go. It’s also OK not to. This history will always be with me, but I’m no longer at its mercy.

Beard often gave me the impression he believed the world was declining—he was on his way out, but he felt a kind of *schadenfreude* for the rest of us, that we’d missed the good old days, and it was all terrible now and forever more. His stance seemed defensive and ungenerous. I wanted him to believe life could go on in a beautiful way for others, to want people to flourish even without him. But I think he wanted the party to die whenever he did.

“It’s the end of the game!” he’d say far too frequently, about too many things.

“It’s the end of your game,” I often thought. But not for the world.

This history will always be with me, but I’m no longer at its mercy

*Fox Weber is a psychotherapist and the author of Tell Me What You Want*



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# SPEAK UP

# SIGN UP

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WORLD

# Captive Audience

ON LAND RUSSIA HAS HELD FOR MOST OF A DECADE, THE FINAL BATTLE WILL BE FOR HEARTS AND MINDS

BY SIMON SHUSTER





*Ukrainian pilots  
watch Russia's  
Vladimir Putin at  
a Crimean air base  
on March 21, 2014*

PHOTOGRAPH BY VIKTOR DRACHEV

## One day last fall, Volodymyr Zelensky, the President of Ukraine, came across a clip

from Russian TV that had gone viral on social media. It showed one of Russia's most prominent talk-show hosts calling for Ukrainian children to be killed—"thrown in a river with a strong current"—for speaking out against the Russian occupation of their homeland. Even by the ugly standards of Russian warmongering, the statement seemed to cross a line, and the host soon lost his job over it. But it continued to trouble Zelensky.

"Their society accepts this, consumes it," he told me with evident disgust a few weeks later. "They live in this paradigm." The Russian invasion of Ukraine was in its ninth month at that point, long enough to harden Zelensky to many of its horrors—the bombardment of Ukrainian cities, the kidnapping of Ukrainian children, the torture and killing of civilians—all of which the President addressed in our interviews with a defiant kind of stoicism. But the Kremlin's propaganda, and the hold it seems to have over many of its viewers, still got under the President's skin. "It shocks me," he said, "the force of this information, the information sickness."

Not only in Russia, but also across the occupied regions of eastern and southern Ukraine, millions of people absorb the Kremlin line about Ukraine through Russian television. Its central message, like a genocidal fever dream mixed in among gardening shows and soap operas, depicts Ukraine's existence as a historical mistake, its government a cabal of satanists and neo-Nazis intent on Russia's destruction. Zelensky, as the main villain in these narratives, does not believe their lack of subtlety makes them any less effective, and he has made it his mission not only to free Ukrainian

land from Russian occupation but also to liberate Ukrainians from what he calls the "Russian information space."

Since early June, when Ukraine began its biggest counteroffensive of the war, the armed forces have sought to prove their ability to shatter Russia's defensive lines and regain territory. But Zelensky, who sees himself as more of a communicator than a military strategist, worries about the political challenges to come, especially the need to win trust and support among people living in occupied lands. To reach them, he plans to use the same weapon that Russia has used to indoctrinate them. "Ukraine needs to break through," Zelensky told me, "with its channels of information as actively as possible."

In regions occupied in early 2022, Russia has not been able to win much support. The residents of Kherson, in the south, showed mass resistance to the occupation, staging rallies and standing in the way of enemy tanks. "The Russians did not win in Kherson because, inside themselves, the people did not support Russia," Zelensky said. "They held firm." In other regions, the picture looks more complicated.

Crimea in the south and parts of the Donbas region in the east have been under Russian control for nine years, ever since Russian President Vladimir Putin first sent his forces to occupy them. With enough weapons from the West, Zelensky believes the military can evict the Russians from these regions. But he is far less certain about what comes next. "People in the Donbas, they've been brainwashed," he told me. "All they have, every single day, is the Russian information space. Nothing else exists there. So there is no hope the people there see Russia as the real occupier," he said. "I can't reach them."

He still intends to try, even if his struggle with Russia in the field of propaganda comes with serious risks, threatening to undermine the very freedoms that Ukraine is fighting to defend. Zelensky has already faced criticism over wartime censorship, and the government's plans to reintegrate Crimea and parts of the Donbas include tough methods, among them the forced expulsion of Russian civilians and what one Ukrainian general calls



▲  
An airstrike on Kyiv's TV tower in March 2022, left; Russian troops in southern Ukraine in May 2022

"carrots and sticks." The President, a former producer and star of Ukrainian sitcoms, sees television as his weapon of choice for winning over people in the occupied territories. "I need to be able to speak with them all the time," he says, "assuming they are still ready to listen."

**THE BATTLE** for the airwaves has played out in Ukraine for nearly a decade, always in parallel to the clashes at the front. In eastern Ukraine, one of Russia's first conquests took place on April 17, 2014, when a group of heavily armed militants drove up to a TV tower on Karachun Hill. At the gates, they encountered two guards, a man and an elderly woman, along with a shaggy mutt named Bim that looked too small for its doghouse. When I interviewed the guards a few days later, they told me the gunmen went straight up to the tower's control room and asked the engineer to broadcast the frequency of Russia's main propaganda channel, Rossiya.

The engineer complied just in time to show Putin's annual call-in show, which lasted around four hours that day. Seated at a desk in front of a studio audience in Moscow, Putin used the show to expound on his imperialist vision for Ukraine. He referred to eastern



and southern Ukraine as Novorossiia, or New Russia, and he argued that with the fall of the Soviet Union in 1991, these lands unfairly ended up outside of Moscow’s control—“God only knows why.” From that point forward, Putin would use all means at his disposal, including military power, he said, to protect the ethnic Russians living in these regions from their own government, which he described as a bunch of radical nationalists.

Coming a month after the Russian annexation of Crimea, Putin’s performance served as a warning that he could do the same with other regions of Ukraine. The government in Kyiv, which had come to power in a revolution that winter, understood that Putin intended to use his TV networks to stir a separatist rebellion among ethnic Russians, and it tried to block access to these networks across the country. Throughout May 2014, the Ukrainian military fought fierce battles for Karachun Hill that ended only after its TV tower was destroyed.

It made little difference. By the middle of summer, Russian forces took control of two major cities in eastern Ukraine, Donetsk and Luhansk, along with their television towers. “Let the people hear the truth,” one of the separatist broadcast engineers, Pavel Mikhaley, told me as he configured the tower in Donetsk to show Russian propaganda that July. “Let them understand that Ukraine has no future as a state.”

#### Russian-occupied parts of Ukraine



**WHEN ZELENSKY TOOK OFFICE** in 2019, he believed he could win support across eastern Ukraine, even in the regions that had been under Russian control for around five years by then. The cities of Donetsk and Luhansk had turned into separatist enclaves, ruled by a cast of Russian-backed warlords and spin doctors who were often assassinated and replaced with new appointees of the Kremlin. One separatist commander, known as Batman, was sprayed with bullets on a roadside in Luhansk. Another was blown up in a café. A third, nicknamed Motorola, was bombed in an apartment building. A fourth was incinerated with a flamethrower. The list went on.

While Crimea survived on Russian tourism to its beaches, neither of the two separatist regions in eastern Ukraine had a functioning economy.

International sanctions cut them off from any form of legal commerce with the world. Their leaders dealt in contraband, particularly the smuggling of weapons and coal, with some meager subsidies from Russia. No country in the world, not even Russia, recognized their independence. Yet they were home to well over 3 million people. Reliable surveys of public opinion were hard to come by in these regions. The best polling available suggested that in the fall of 2019, just over half of the people in the separatist parts of eastern Ukraine were not, in fact, separatists at all—they wanted to reintegrate with the rest of the country. Zelensky encouraged them.

A native Russian speaker, he had spent most of his early career as a comedian touring stages and concert halls across Russia and Ukraine. Many people in Crimea and the Donbas grew up watching his movies and TV shows. As President, Zelensky promised to start paying pensions to people living under Russian occupation. Soon new roads opened across the front line, making it easier for people in these regions to visit friends and family in other parts of Ukraine. “People should cross over and see that it’s better here, and slowly their opinions will change,” Zelensky said. “We need to bring them back and fight for them.”

But within a year of taking office, the President realized his message could not penetrate Russia’s monopoly on

information in these regions. All major television networks in Ukraine were controlled by private media tycoons. Nearly all of them opposed Zelensky's government, and a few were allied with the Kremlin. In early 2021, Zelensky banned three of the channels that he accused of broadcasting Russian propaganda in Ukraine. The move infuriated Putin, and European leaders criticized Zelensky for encroaching on the freedom of speech. But he saw no other way to curtail Russia's influence over his citizens. "I think these channels killed a lot of people," he told me after banning them. "Not directly," he said, "but through information."

**IN FEBRUARY 2022**, with the start of the full-scale Russian invasion, Zelensky imposed martial law nationwide, which gave the state a powerful weapon in the information war. The airwaves in wartime are treated as critical infrastructure, and the authorities in Ukraine have the right to use them for national defense. Ukraine's biggest television networks quickly agreed to set aside their political agendas and show a unified message of resistance, falling in line behind Zelensky.

The result became known as the Telemarathon, a round-the-clock broadcast of news and commentary that airs on all the major channels in Ukraine. Along with the latest updates on the fighting and essential advice on where to shelter, when to evacuate, and how to survive, the marathon carries Zelensky's message into every household in the land. Nothing like it has existed in Ukraine since the Soviet era, and critics have complained that it smacks of propaganda. A strict new media law, which came into force in March, also earned Zelensky criticism for expanding the state's ability to shut down news outlets. But he insists such measures are essential. "The weapon of information is very important," he said last summer. "It's also important to point this weapon not at one's own head, but in the direction of the enemy."

For nearly a year, as Ukraine's armed forces have advanced in a series of counteroffensives, engineers have rushed to bring the Telemarathon to liberated towns and cities. The

Russians have tried to block it. When they retreated from Kherson in November, Russian forces blew up the city's television tower, which fell in a heap of metal beams and antennas over a city park. The Ukrainians used a transmitter donated by Poland to restore the TV signal in Kherson. Two days later, the Telemarathon showed Zelensky returning the national flag to the center of the city, where hundreds of people had gathered to celebrate their liberation.

In other parts of Ukraine, that kind of welcome would be hard to imagine.



▲  
*A pro-Russian separatist tears down Ukrainian banners near a TV station in Donetsk in April 2014*

After living for nine years on the Russian side of the front, many people in Crimea and the Donbas may not accept Ukraine as their home. The youngest among them have grown up under Russian control, watching the Kremlin's television channels. Thousands of young men in the separatist regions have been conscripted to fight against Ukraine. "They are also dying," Zelensky says. "And when their bodies come home, they are told, 'Look what the Ukrainians have done!'" As Ukraine retakes these regions, village by village and town by town, "we need to be ready," Zelensky

says, "for the fact that some of those people will not be happy to see us."

**SINCE LAST FALL**, when the military began advancing into Russian-occupied areas, the government in Kyiv has developed plans for reintegrating the people living there. Iryna Vereshchuk, who heads the ministry in charge of this process, says the government has begun to train teams of civil servants, teachers and social workers who can sweep into these regions after they are liberated and, as she put it in a recent interview with *El Pais*, remake the state "from scratch."

The government expects many Ukrainians to move into liberated regions and help rebuild them once the Russians are expelled. Under Ukrainian law, anyone who collaborated with the occupiers must face prosecution in a period of "transitional justice," which could take years. Ukraine estimates that over 600,000 Russians moved into Crimea in the years after its occupation. All of them will need to leave "voluntarily or through forced expulsion," Anatoly Stelmakh, the deputy minister for the reintegration of occupied territories, told a Ukrainian news outlet.

Some officials in Kyiv have suggested harsher methods to root out Russian sympathizers. In a TV interview this spring, Kyrylo Budanov, the chief of the military intelligence service, said the influence of Russian propaganda has "modified the psyches" of people in occupied Crimea and eastern Ukraine. "We have to re-educate those who can still be re-educated," he said. "With the carrot and the stick."

Zelensky tends to take a softer line, insisting he can convince people in the occupied regions without the use of force or coercion. The ones who abetted the occupiers must face justice, he says, and under the laws against collaboration Zelensky signed last year, the penalties are stiff—up to 15 years in prison for the worst offenders. As for the rest of the people in these regions, Zelensky wants a chance to speak to them, if not in person then through television, and to change their minds. "We have to try," he told me. "We have to get closer, and the closer we get to Donetsk and Luhansk, the higher the chance they might hear us." □



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2023



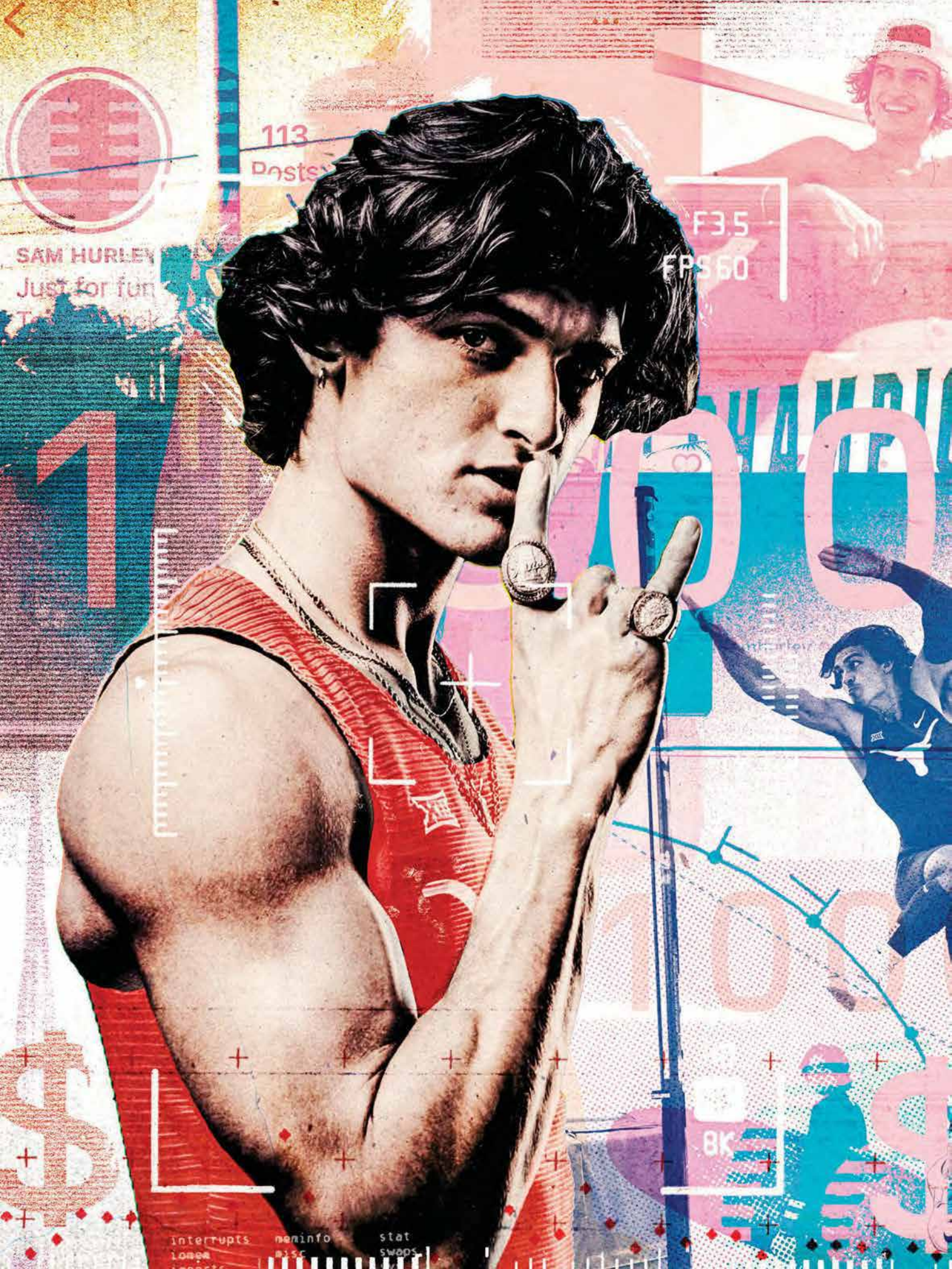
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# H I G H F L Y E R

**HOW TEXAS TRACK-AND-FIELD STAR SAM HURLEY USED HIS TIKTOK SAVVY TO SCORE NEARLY \$1 MILLION IN DEALS**

**BY SEAN GREGORY/AUSTIN**

ONE OF THE HIGHEST-EARNING COLLEGE ATHLETES ON THE PLANET SAYS a little prayer. Sam Hurley, a University of Texas sophomore, prays that God gives him the wings—represented by an angel tattoo on his left calf—to carry him over the high-jump bar. The overwhelming majority of college athletes who earn in the neighborhood of \$1 million or more to market their name, image, and likeness (NIL), as Hurley does, perform athletic feats before 50,000 to 100,000 fans in packed football stadiums or in sold-out basketball arenas. But a few hundred eyes, at most, are fixed on Hurley as he attempts to win the Texas Invitational.

On this April afternoon in Austin, Hurley, 19, soars, arches his back over the bar, and flops on the mat. To a smattering of applause, he hops up, pounds his hand against his chest, and points one finger up in the air. He's clinched his second meet title of the outdoor track-and-field season. "It was a good day," Hurley says afterward, "to be great."

July 1 marks the second anniversary of the day that college athletes were given the freedom to profit off their personal brands. After years of sustaining hits in the courts and in the media for allowing schools, administrators, and coaches to enrich themselves on the backs of football and basketball players, the NCAA relented, and dropped its arcane rules preventing athletes from signing third-party sponsorship deals. Opendorse, a company that connects student athletes with businesses, expects NIL earnings to top \$100 million by the end of 2023.

Hurley presents a crucial case study. Of the 25 college and high school athletes with NIL valuations of \$1 million or more, according to On3.com, all but two—Hurley and LSU gymnast Olivia Dunne—play football or basketball, the two sports that drive athletic-department revenues. Like Dunne, Hurley has leveraged his social media following into earnings that, he says, are approaching \$1 million. Of the 25 most highly valued athletes, only Bronny James, LeBron's son, and Dunne have more impressive social media metrics than Hurley (12.9 million followers for James, 11.4 million for Dunne, 5 million for Hurley).

If NIL rules hadn't changed two years ago, Hurley, who became an influencer in high school, would have skipped college. Since becoming a college

ILLUSTRATION  
BY ALEX  
WILLIAMSON  
FOR TIME

athlete, he's signed NIL deals with brands like Amazon, Jimmy Dean, Vuori, and Bubble, the skin-care company. But while Dunne competes in gymnastics, a star Olympic sport with a loyal following on the college level, Hurley participates in a track-and-field discipline that barely causes an Olympic ripple. Hardcore college high-jump enthusiasts are few and far between.

Hurley's creating a novel path toward college-sports riches. Influencer first, athlete second, with each job gilding the other. His story, however, also highlights who's benefiting from NIL, who's not, and what still needs to change. Hurley deserves everything he's earned. He's a fine high jumper; Hurley qualified for the NCAA National Track and Field Championships, held in Austin in June. Sponsors value the following he has amassed through his charisma, chiseled abs, and athletic prowess. But the nearly \$1 million he's earned through NIL isn't commensurate with his value to Texas' athletic department. At Texas, football (\$161.5 million) and men's basketball (\$23.6 million) accounted for 91% of the haul attributable to a specific sport during the 2021–22 academic year. The school's 13 other varsity sports teams accounted for \$18.5 million combined.

By conjuring riches from social media, Hurley throws into higher contrast the legions of athletes—who very often are people of color—toiling in the trenches that fuel the \$19 billion college-sports industry. Justice Brett Kavanaugh, in a 2021 concurring opinion, wrote, “Nowhere else in America can businesses get away with agreeing not to pay their workers a fair market rate on the theory that their product is defined by not paying their workers a fair market rate... The NCAA is not above the law.” He seemed to invite further challenges: a few such cases are circulating in lower courts, and the California state assembly just passed legislation requiring schools to share new athletic revenues with the athletes.

A fairer market for college athletes seems like an inevitable next step in the evolution of the industry. And to Hurley's credit, he acknowledges the inequities in the current system. “There's enough money in this NCAA world for everyone,” he says. “I'm all for everybody eating.”

**HURLEY, WHO GREW UP** in Northwest Arkansas, started posting YouTube videos of himself jumping on a trampoline and skateboarding when he was 8. He was preternaturally athletic—he could dunk a basketball at age 14. Hurley was also comfortable hamming it up. “If we're at the pool, he's going to do 72 different flips and tricks, and we've got to rate them and watch his show,” says his brother Hootie.

His parents divorced when Hurley was in eighth grade, and with his two older brothers

A STILL FROM A LIP-SYNC VIDEO HURLEY SHARED WITH HIS MILLIONS OF TIKTOK FOLLOWERS IN 2021



### TOP NIL VALUATIONS BY SPORT

\$6.8M

**BRONNY JAMES**  
BASKETBALL

\$3.4M

**OLIVIA DUNNE**  
GYMNASTICS

\$2.8M

**ARCH MANNING**  
FOOTBALL

\$1.1M

**SAM HURLEY**  
TRACK AND FIELD

NOTE: VALUATIONS BASED ON ATHLETIC PERFORMANCE, SOCIAL MEDIA REACH, AND EXPOSURE (PROMINENCE OF SCHOOL AND VISIBILITY OF POSITION). SOURCE: ON3, JUNE 13

away at college, “it was such a drastic change, going from a team of five to kind of feeling solo.” During his freshman year of high school, however, Hurley discovered TikTok. His first posts, in November 2018, were mostly clips of a scrawny teen backflipping into water, but they racked up tens of thousands of views. Brands started offering him money to partner with them. “I was like, Holy crap, this is crazy,” says Hurley. “I realized I can make a career doing this.” The influencer market is expected to grow to \$21.1 billion this year, according to Influencer Marketing Hub.

Soon Hurley had a million TikTok followers. On a trip to New York City, he posted a message that he'd be in Times Square in a few hours. “COME MEET ME,” he wrote. Hundreds of teenage girls surrounded him, screaming, “Oh my God!” That summer Hurley joined fellow influencer Josh Richards and others on a nationwide tour. He began modeling for Polo Ralph Lauren.

Hurley has a right-angular jaw, blue eyes, and a back tattoo that reads “Designed by God.” But his desire to capitalize on his good looks and goofy personality made him a target as a teen. “The upperclassmen hated on me so hard,” Hurley tells me as we eat breakfast the morning before the meet. “Oh, you're doing TikTok, dude? Why would you do that?” On his first day as a sophomore, someone spit on him. Fed up with the bullying, and seeking more flexibility for business travel, Hurley opted into the school's

◀ A CHILDHOOD PHOTO, FROM BEFORE HURLEY WAS A SOCIAL MEDIA STAR

▼ COMPETING AT THE USF INVITATIONAL IN TAMPA, FLA., IN MARCH



virtual program. With the pandemic arriving that March, he'd never take classes in the Fayetteville High School building again.

But he suited up for the track team. His junior year, in 2021, Hurley was named Gatorade's Boys Track & Field Player of the Year in Arkansas. Still, he was set on skipping college, since he couldn't promote products on social media while competing in an NCAA sport.

After that July, however, he could do both.

**TEXAS' ASSISTANT COACH** for vertical jumps and combined events, Jim Garnham, who recruited Hurley, wasn't aware of his social media stardom until he mentioned to the team that Hurley would be visiting. One of the female track athletes asked if he was referring to Sam Hurley, the TikToker. Garnham didn't know what she was talking about. The coach got Hurley on the phone. "She was like, 'Oh my God, you've got his number.'"

Before he arrived on campus, Hurley's future teammates figured he'd be some self-centered influencer guy. Hurley has defied these expectations. "You don't see him out here all the time, doing TikTok dances 24/7," says high jumper Chloe Davis. "He leaves that when

he comes through that gate." Teammates appreciate his commitment, and he's been up for informally advising others on how they might take advantage of NIL. "I think it's corny," says sprinter Chris Brinkley of Hurley's TikTok persona. "But I respect what he has going on."

Since April, Hurley has posted the jumps that qualified him for the national championships, shared a photo of himself with a Jimmy Dean sandwich in a paid Instagram promotion, and lip-synched to country songs, shirtless. "We all have these bodies," says Hurley. "What you choose to do with yours is your decision, right? I choose to be shirtless in videos or shirtless whenever."

Hurley notes that he was shirtless in his initial TikTok videos when he was a freshman rail. He attributes this to growing up in Arkansas. "I don't think it's an arrogance thing," he says. "Now I feel more confident with my shirt off. Luckily I'm in a position where some people like when my shirt's off." (About 30 minutes later, he shows me a picture of him holding a 6½-lb. bass

he caught in Austin's Lady Bird Lake. Perhaps he forgot his shirt in his apartment, or lost it in the water. You can take the boy out of Arkansas...)

On one of Hurley's Instagram posts, Sophie Robins, a recent high school graduate from suburban Houston, wrote, "IM COMING TO UT FOR YOU." Reached by phone, Robins laughs and says she started following Hurley a few years ago, but she isn't attending UT for the chance to bump into him. "There have been other TikTok boys that got famous," says Robins. "But he has made himself a real well-rounded influencer. Now he has another path in his life, doing track at Texas."

Hurley says for the most part he doesn't feel objectified, but at times fans have crossed the line. Women have groped his crotch area, he says. A few nights before our meeting, he was out to dinner and noticed

a woman and a man recording him through a window. "At that point, it's almost like, 'I'm not a zoo exhibit,'" he says.

Most encounters are less invasive, if still incessant. In Louisville, Ky., a high school cheerleading team recognized him in a hotel; moms asked Hurley to pose with them, under the guise of wanting pictures for their daughters. On Easter Sunday, Hurley attended church with his grandmother Verda Turner. The next week, a friend of Turner's shared that her arm was still sore, since her granddaughter had spotted Hurley and pinched her the entire service.

**I ASK HURLEY** at one point about the occasional social media comment implying his TikTok fame got him to Texas. That criticism rings untrue. Hurley has won meets. Texas recruited him without knowing about his social media. But internet toxins blind people to these truths. "One million percent, one of my biggest motivations for myself is to prove that I'm not just a TikToker," he says.

Despite approaching seven figures in NIL earnings, Hurley isn't living too large. His big splurge was a 2021 Dodge Charger; he purchased a condo as an investment. But he lives alone in a modest apartment; the place is decorated with a Big XII conference medal hanging around a deer's antlers, which shares wall space with the head of an actual Texas longhorn. An e-bike sits in his living room. His own merch—like a white T-shirt with his likeness making the "Hook 'em Horns" gesture—hangs on his bedroom wall.

Before a meet, Hurley is friendly to the competition. "I'm walking around, dapping every-

one up, asking them how they're doing." But when the bar goes up, he takes a turn. "I get in this mode of, like, everything that angers me, everything that motivates me, it's all put in my frontal lobe," he says. "Even if I was facing the greatest high jumper of all time, I'm

**'THERE'S ENOUGH MONEY IN THIS NCAA WORLD FOR EVERYONE. I'M ALL FOR EVERYBODY EATING.'**

—SAM HURLEY

going to beat him in my mind."

These mental tricks seem to be working. Hurley has shone for one of the best athletic programs in the country while building wealth unimaginable for most 19-year-olds. But remember: Texas isn't paying him. The cash must come from other sources. So if you're in a low-exposure sport, or aren't the star of a football or basketball team, one path to money might be mimicking his example.

"You're going to need a little courage," Hurley says. "It doesn't matter who you are, what you do, what you look like, where you're from, there's a niche of people who are going to like it." □



# WISMILAK - Shaping Indonesia's Future

**F**amily-run companies continue to flourish around the world, despite predictions that this so-called “old-fashioned” business model is on its way out. Proof of the model's durability is surely Indonesia, where 95% of enterprises are family owned and represent 82% of national gross domestic product (GDP) – more than double the average of its Asian neighbors.

PT Wismilak Inti Makmur Tbk is a prime example. Established in 1962 as a cottage industry in the East Javan capital of Surabaya by Lie Koen Lie (Wiseman Ali), the grandfather of current CEO Ronald Walla, Wismilak has subsequently grown into a company with an annual turnover of \$280 million. Last year, it demonstrated its success in navigating the COVID-19 pandemic with an IPO that saw its share value jump by 30% on the first day of trading, netting the company \$270 million in new capital, the majority of which was immediately earmarked for investment in new facilities and equipment. “I am the third generation of the family to run this company and as such am guardian of the business philosophy that has driven Wismilak since the very beginning,” said Walla, who took over the reins of responsibility from his late father Willy Walla in 2012.

One of the key elements of this philosophy has been the company's commitment to quality combined with an attention to detail. “All our production equipment is top quality and acquired from the most reliable suppliers on the market. Our adherence to perfection leads us to focus on delivering the best products and services the industry has to offer. We also innovate and produce various filter products and other supporting raw materials,” he explained. A second element of the Wismilak philosophy is its attention to human-resource excellence. Its focus on service and innovation is also critical to the company's long-term development.

Over the years, the Walla family has also



consistently proved itself to be commercially astute, particularly in its appreciation of the power of promotion and distribution. “Starting in late 1980s, TV marketing improved our brand equity and company image to great effect,” Walla said. “And it helped strengthen the trust between Wismilak and its consumers.”

The decades of groundwork that Walla and his predecessors put into the company are now paying off. Although fast-moving consumer goods (FMCG) manufacturers and retailers were probably less affected than many other sectors by the lockdowns that followed the coronavirus outbreak, Wismilak nevertheless got through the crisis more unscathed than most, with average annual growth over the past three years higher than 35%.

The future looks just as promising. Wismilak is set to continue punching well above its weight, while Indonesia's FMCG outlook is extremely positive. The sector is widely acknowledged to be one of the country's main economic drivers. Its importance is likely to grow as the Indonesian government's retraining and reskilling programs continue to boost employment among the country's working-age population creating a demographic bonus.

Walla is contributing to the Indonesian archipelago's prosperity in more ways than one. At the same time as Wismilak feeds into Indonesia's economic growth on a purely business level, its CEO is busy sharing his experience and learning from his peers in his role as chair of the Micro Small and Medium Enterprise division of the

Employers' Association of Indonesia (APINDO). An independent, non-partisan organization of entrepreneurs set up in 1952, APINDO acts as a point of contact between the Indonesian business community and the government. Over the past 60 years, the association has played an increasingly important role in helping the authorities in Jakarta meet their social and economic goals.

In a country with such strong SME and family business representation, Walla's position within APINDO is one of considerable importance and he rightly sees it as a golden opportunity to make a real difference. “I am in a position to help Indonesia's SMEs by sharing our experiences,” he said. “Sharing and learning are really important.”

Under Walla's guidance, the association is busy building a national SME development framework through collaborating with stakeholders including the government, association and community academics, the private sector and the media. Together, they are known as the Pentahelix. It is a win-win for the stakeholders and SMEs as the framework will enable more businesses to contribute to achieving the United Nations Sustainable Development Goals (SDGs) and enhance their capacity and knowledge by sharing experiences and resources.

Under the Wismilak Foundation, Walla and his team are also the initiators and organizers of the Diplomat Success Challenge, which facilitates the development of entrepreneurs in the country and is celebrating its 14th anniversary in 2023. “We give the SMEs the flexibility to innovate, provide ideas and funding according to their needs in the field, their creativity and interests. We are one of the oldest and most consistent initiators of its kind in Indonesia,” said Walla. “I believe every region has local wisdom that can be developed and be proud of.”

With mentors like Walla, Indonesia's pioneering SMEs look set to blossom into global players.



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to fashion, the businesses  
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LON TWEETEN FOR TIME

With reporting by Leslie Dickstein, Mariah Espada, Anna Gordon, Tara Law, Simone Shah, and Julia Zorthian





# DISRUPTERS

## OpenAI

*CEO Sam Altman is pushing past doubt, into the future*

BY EDWARD FELSENTHAL/SAN FRANCISCO AND BILLY PERRIGO/LONDON

**Y**OU EVER WATCH *STAR TREK*?" SAM ALTMAN, the CEO who has become the most visible face of the current artificial-intelligence boom, has just called us an Uber. The 38-year-old serial entrepreneur has lately become known for talking up the risks of AI, but he is at his most animated in talking about its possibilities. So transformative is this new technology that responds naturally to our verbal commands that he envisions new hardware for it—something, eventually, like the *Star Trek* holodeck, in which characters use their voice to conjure and interact with 3D simulations of the world. An interface like that feels “fundamentally right,” he says.

Altman’s company, OpenAI, is only seven years old. It has fewer than 500 employees. Pipe some pan flutes and whale sounds into the airy, light-filled lobby of its headquarters in San Francisco’s Mission District, and it could almost be mistaken for a spa. But in the span of 6½ months, the company—through its viral product ChatGPT—has vaulted AI into public consciousness. Few doubt it’s at the vanguard of a revolution that will, for better or worse and probably both, change the world.

ChatGPT is almost certainly the most rapidly adopted product in the history of technology. It’s also one of the more versatile, capable of responding to a vast array of user prompts, from “Tell me a joke” to “Draft 10 slides with ideas to grow revenue at a hair salon.” It can write poetry and explain scientific concepts. Altman says he uses it for routine tasks, like pulling highlights from his overflowing email inbox or to “draft a tweet that I was having a hard time with.” Essentially a superpowerful auto-complete tool trained to generate language by observing patterns in large quantities of data, it has its limits—including a disconcerting inability to separate truth from fiction. OpenAI’s warning about this, placed beneath the text input box, hasn’t stopped people from using it for homework, investment advice, and even therapy.

Consumer-facing AIs had hit the market before, but something about ChatGPT’s text-message-inspired, conversational interface clicked. In the days following the Nov. 30 release, OpenAI

employees were glued to their screens, posting graphs in the company Slack channel as usage numbers took off. “It just kept going up and to the right at a steeper and steeper angle,” says Diane Yoon, OpenAI’s vice president of people. Two months later, ChatGPT had more than 100 million unique visitors, according to data from Similarweb. Instagram took 30 months to reach that level.

It was the start of an AI arms race. Google declared an internal “Code Red” and fused its two AI labs—Google Brain and DeepMind—into one organization. Microsoft, having already invested \$3 billion in OpenAI, poured in an additional \$10 billion. Billions more flowed into startups and the stocks of public companies that could plausibly (and implausibly) claim AI would supercharge their growth. In March, OpenAI upped the stakes again, releasing an even more powerful tool called GPT-4.

**TEMPERING ALL THE PROMISE** is real fear. There’s little doubt AI will make many jobs extinct, as new technology does, even as it creates new ones. It’s also enhancing the ability of bad actors to flood us with fake content masquerading as truth and fake voices that sound eerily like those of our loved ones. Can we trust what we see or hear? Altman acknowledges, with unsettling matter-of-factness, that the answer is probably no. “You can’t trust a voice you hear over the phone anymore,” he says. “We just all need to start telling people this is coming.”

In the wrong hands, these tools could cause even worse problems, launching cyberattacks or causing havoc in financial markets. And if AIs were to become capable of making plans on their own and acting on them—especially if those plans aren’t “aligned” to human values—it’s possible to imagine them deciding humans are obstacles to their goals. Altman himself joined dozens of other tech leaders and scientists recently to sign a statement that cast the development of AI as a risk on par with pandemics and nuclear war. The worst-case scenario, he said earlier this year, is “lights out for everyone.”

This has become Altman’s calling card, championing the possibilities of AI while urging policymakers to get going on rules of the road to mitigate

the dangers. “I’m a Midwestern Jew,” says Altman, who grew up in St. Louis. “I think that fully explains my exact mental model—very optimistic, and prepared for things to go super wrong at any point.” A related theme of Altman’s is adaptability: the idea that success comes from the ability to reorient yourself to even radically new circumstances. In his professional life, adaptability is part of a skill set that guided Altman to great wealth in his late 20s and early 30s, as he helped launch thousands of new companies as a partner and later president of the renowned startup accelerator Y Combinator. It also informs his belief that we as a species can avoid the worst of what AI could bring. “Society is capable of adapting as people are much smarter and savvier than a lot of the so-called experts think,” he says. “We can manage this.”

The evangelist preaching about risks yet plowing ahead anyway is just one of the dualities that come through in conversation with Altman. He is an outspoken advocate for AI regulation, with his own opinions about which ones should apply to his company. (“You should be skeptical of any company calling for its own regulation,” he acknowledges.) He is an avowed capitalist who says he has no equity in OpenAI, structured his company to cap investors’ profits, and advocates a universal basic income program to temper inequality, which many believe AI will exacerbate. He professes faith in the ability of these models to continually improve, despite the fact that he and his colleagues concede they have limited insight into how the technology will evolve. “Even the people who create them don’t actually know what they can and can’t do,” says Helen Toner, a member of OpenAI’s board. “I expect that it’s going to be probably years before we really know all the things that GPT-4 can and can’t do.”

How much we’re able to trust the human beings who are “tuning” these powerful machine algorithms—both their intentions and their capabilities—will be one of the great recurring questions of the coming years. In conversation with OpenAI employees across a range of departments, a recognition of AI’s dangers is a near universal talking point. It’s a far cry from the playbooks of

tobacco, fossil-fuel, and social media executives who spent years denying possible harms before finally being forced to acknowledge reality.

The semantics start to sound a bit Orwellian. Yoon, the HR chief, says OpenAI doesn’t use the term *competitors*, a nod to the importance of collaboration with others in the field in order to avoid bad outcomes. When asked about the AI arms race, a company spokesman objected to the metaphor, saying “the whole arms race is a bit triggering for us.”

Of course, it’s hard to argue that OpenAI didn’t play a significant role in triggering what is now unfolding in the industry. “It is a race,” says Tristan Harris, the ethicist who co-founded the Center for Humane Technology, but collaboration among the major players will be key. “We need to coordinate because it’s not about getting OpenAI to more safety. That wouldn’t do anything because everyone else would just keep going faster.” Harris is concerned that “advances in capabilities are exponential and advances in safety measures are linear,” and about “the commercial incentives driving the show rather than conscious considerations about what world we want to see.”

**ALTMAN VIEWS** the ChatGPT interface as an advance over the iPhone in its simplicity, and says it was inspired by his own love of texting as a kid. The decision to give ChatGPT a “horrible,” robotic name, Altman says, was a very deliberate one; he frets about the temptation to anthropomorphize AI tools, which can undermine the distinction between humans and machines. Here is another duality: ChatGPT is trained to remind users that it is incapable of having opinions. And yet ChatGPT’s human qualities—its conversational interface, its liberal use of the first-person pronoun—were a key part of what made it go viral.

Despite the massive investment from Microsoft and the shift to a profit model that, even capped, allows for 100 times returns, OpenAI still considers itself a research lab committed to its original mission of ensuring artificial general intelligence “benefits all of humanity.”



Some of the OpenAI team, from left: CEO Altman, CTO Mira Murati, president Greg Brockman, and chief scientist Ilya Sutskever

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The company's culture is defined by it. "I think it's important to push the technology as an antidote to the bad use," says chief operating officer Brad Lightcap. "If this project had started 60, 70 years ago, it probably would've been a government-funded effort."

OpenAI brought in a reported \$28 million in revenue last year, which would be less than half of what a typical car dealership brings in. But Altman says he feels little immediate pressure to bring the company's commercial success to the level of its clout. Asked how much time he spends worrying about competition, he says, "You're not going to believe me on this, but almost none at all." What keeps him up at night, he says, is not surging competition from language models such as Google's LaMDA, Meta's LLaMA, and Anthropic's Claude. "This is super different than who gets a little bit more or less market share," Altman says. "We've got to figure out how to manage this and have this go well."

**A FEW DAYS** after our visit, Altman embarked on a five-week blitz across six continents. The trip, he says, was designed to get him out of the Silicon Valley echo chamber. To some extent, it was also a victory lap—and an attempt to encourage and influence global AI regulation as nation-states wake up to the power of the technology he steers. On his tour, Altman addressed the U.S. Senate, met the British and Indian Prime Ministers, opined on forthcoming E.U. AI regulation, and urged collaboration with China.

On May 24, Altman spoke at a university lecture hall in London. The queue to get in snaked down the road and around a corner. Instead of disappearing backstage after the talk, Altman hopped down into the crowd, where he was surrounded by students and journalists. He posed for selfies and gamely answered questions. After heading out through a revolving door, he had a short discussion with protesters who had come to picket, one carrying a sign

that read STOP THE SUICIDE AGI RACE. With no bodyguard or PR handler in sight, it was a starkly different scene from earlier stage-managed tours by Mark Zuckerberg and others.

As with tech companies before his, there is some daylight between what Altman says and what happens behind the scenes. At the London event, Altman told reporters that OpenAI may decide to "cease operating" in the E.U. as a result of the bloc's forthcoming AI regulation. In a meeting last year with E.U. officials, which had not been previously reported, OpenAI pushed back against wording that would have required "general purpose" AI models like ChatGPT to comply with the same rules as AI tools considered by the E.U. to be "high risk."

In our conversations, Altman expressed deep optimism about society's ultimate ability to adjust to AI's risks. To ensure that the people you hear on the phone or see on video are who they say they are, for example, he foresees society coming to use a mix of technical and social measures, such as code words

or cryptographic keys that verify identity. He sees the promise for AI to eventually do a huge amount of the mundane tasks that occupy our days, and at the same time grapple with prompts like "Discover the cure for cancer." Says Altman: "The exciting parts are almost too long to list."

And yet, he has also mused aloud about whether OpenAI did "something really bad" in creating ChatGPT. Altman has long been reported to be a doomsday prepper—with guns, medicines, and gas masks at the ready. He rolls his eyes at the characterization, which he finds overblown, but adds that he does find survivalism "an interesting hobby."

"Look, if AGI goes wrong, no bunker's going to help anyone," he says, adding later: "The scary part is just sort of putting this lever into the world will for sure have unpredictable consequences."

**'PUTTING  
THIS LEVER  
INTO THE  
WORLD WILL  
FOR SURE HAVE  
UNPREDICTABLE  
CONSEQUENCES.'**

## GRAB

*All-in-one app*

Grab is much more than Southeast Asia's version of Uber. The \$12 billion firm retains a core business in ride-hailing and food delivery, but is fast becoming a fully fledged superapp, now offering its 32 million monthly users travel bookings, health care, insurance, and most notably financial services, since launching Singapore's first digital bank in August. Some 70% of the region's population is underbanked, and Grab—which operates in over 500 cities across eight nations—aims to boost financial inclusion and bring more small businesses into the digital economy. "We don't chase money, but chase a mission," Grab CEO Anthony Tan says.

—CHARLIE CAMPBELL



## ODDITY

*Smart beauty*

A tech firm masquerading as a beauty retailer, Oddity is famous for its direct-to-consumer brands: Il Makiage makeup and SpoiledChild, a hair- and skin-care line launched last year that brought in \$48 million in gross sales in just 12 months. With overall sales doubling every year since its founding in 2018, Oddity says it became the best-selling digital beauty brand in history by using AI-backed online quizzes to match customers with products. "If you don't have high-quality data to train [AI] on, it's garbage in, garbage out," says global CFO Lindsay Drucker Mann. But with detailed data from over 40 million users, Oddity's models are getting smarter all the time.

—ALISON VAN HOUTEN



## AMPLE

*Fully charged, faster*

Ample's battery-swap stations could help get more EVs on the road. Drive-in bays robotically swap drained batteries for fully charged ones in just five minutes, the company claims. The process can work in different vehicle models using adapter plates, so scaling the strategy requires close cooperation with vehicle makers; CEO **Khaled Hassounah** says the company is working with five automakers, including two major global ones. He thinks the booming consumer EV market needs swapping to grow even as plug-in charging expands and gets faster (it currently takes at least 30 minutes). This year, Ample got a \$15 million grant from the California energy commission to boost production.

—DON STEINBERG

## DISCORD

*Gathering spaces*

Long the top gaming chat platform, Discord has evolved into the online forum of choice for many communities—from houseplant aficionados to movie buffs. Its 19 million servers give 150 million monthly active users semi-private rooms to connect around specific interests via voice, video, and text—for bad or good. In April, one user was charged with sharing dozens of classified documents in a Discord group in one of the most significant national intelligence leaks in U.S. history. At the same time, Midjourney, a text-to-image AI server, has ballooned to over 17 million members. "That multiplayer aspect has made this a really exciting place for new things," says senior VP of product Peter Sellis.

—MEGAN MCCLUSKEY



## HOKA

*FITNESS PHENOMENON*

In the competitive retail category of athletic footwear, sneaker brand Hoka has seen sales soar thanks to its distinctive (and polarizing) chunky silhouette and clever marketing. Originally created in 2009 when two French mountain runners designed a shoe that would let them run downhill faster, the sneaker has had an undeniable influence, with countless copycats across the industry. Parent company Deckers Outdoor Corp.—which owns the similarly divisive UGG and Teva—grew sales 90% to \$352 million in the third quarter of last year, mainly among 18-to-34-year-olds. CEO Dave Powers credited the brand's first-ever global campaign—"Fly Human Fly," a 60-second spot featuring runners sprinting through a color-shifting cityscape—as a "key catalyst" for brand recognition, and recently furthered Hoka's reach by introducing children's sizes.

—CAITLIN PETREYCIK

## CANVA

*Fostering creativity*

In 2022, Canva emerged as a major work-software competitor with a visual bent, expanding from a design platform for social media graphics to AI-powered tools and a workplace suite capable of going toe to toe with Microsoft Office and Google Workspace. Last fall the company launched its Visual Worksuite software package (from documents to presentations, videos, websites, and whiteboards); a new text-to-image app; and Magic Write, an AI-powered writing assistant. Along the way Canva's customer growth flourished, topping 110 million users by year's end. It also offers its tools free to 400,000 nonprofits and 35 million students and teachers around the world.

—JARED LINDZON



## ZIPLINE

*Precision delivery*

Zipline got its start in 2014 delivering emergency blood supplies to remote Rwandan villages by drone, saving hundreds of lives. Nine years on, the company has scaled up—it is expecting to hit 1 million deliveries by the end of the year—and scaled out, conveying everything from Sweetgreen salads to prescription drugs for customers including Walmart, the Toyota Group, and GNC in the U.S., Japan, Kenya, Nigeria, and Ivory Coast. In March, it unveiled its next-gen drone system featuring an autonomous droid lowered by a tether to the ground, adding precision in space and time: customers can schedule deliveries down to the second, to an area as small as a backyard patio table or a front step. —ARYN BAKER

**STABILITY AI***Automatic imagery*

If you can describe it in words, Stability AI can turn it into a picture. Stable Diffusion, a free, open-source text-to-image generator that the company helped train, changed the world's understanding of AI's potential when it launched in August. But Stability AI soon found itself at the center of debate—and copyright lawsuits—over how it trains those tools on data (and art) pulled from the internet. Still, the company says that within a month of launching Stable Diffusion 2.0, it powered four of the App Store's top 10 apps. CEO Emad Mostaque, reportedly prone to making exaggerated claims about his company, says Stability AI's "true open-source approach" creates "a path for breakthroughs." —J.L.

**BABY2BABY***Diapers for all*

For millions of families living in poverty, diapers are unaffordable, and most U.S. government programs don't cover the cost (up to \$100 per month per child). Baby2Baby, a national nonprofit led by co-CEOs Kelly Sawyer Patricof and Norah Weinstein, has distributed 150 million diapers to families in need since 2011, working with homeless shelters, domestic-violence and foster-care programs, and other organizations. In 2021, it developed its own diaper-manufacturing system to cut out middlemen and lower costs. "It has allowed us specifically to distribute an additional 35 million diapers since [2021]," says Weinstein. "By the end of this year, that number will be 50 million." —G.G.

**RAMP***Automating expenses*

Notching an \$8.1 billion valuation just three years after being founded is striking, even for a tech startup. While many fintech companies struggled last year, Ramp's meteoric rise accelerated. The business-expense-software firm saw revenues quadruple as its customers looked to stay lean through inflation. Ramp's Visa cards are tied to employer-set policies, so employees instantly know if charges are approved; reports and receipts aren't always needed. Employers get alerts about duplicate expenses and items they may be overpaying for. "We're trying to create things that people have wanted for a long time, but banks never built," says CEO and co-founder Eric Glyman. —DON STEINBERG

**COST PLUS DRUGS***Reining in prices*

In 2022, Mark Cuban's online pharmacy Cost Plus Drugs set out to transform the industry by offering medications at their true cost, plus a 15% markup and pharmacy fee. That's a fraction of what many pay at pharmacies, and can save patients hundreds or even thousands of dollars—and Cost Plus continues to expand its offerings. "We are adding specialty and branded drugs along with biosimilars," Cuban told TIME in an email. "We have also put together an affiliate retail pharmacy network so people can pick up medications locally." This year it started accepting some insurance (from small and medium insurers), and Cuban says it's "almost done" building a factory to manufacture drugs.

—CHARLOTTE ALTER

**PLENTY***FARMING TO NEW HEIGHTS*

Between climate change and population growth, the global food crisis looms larger. Plenty is looking up for solutions—and selling produce at scale. Its patented indoor-farming tech can grow peak-season-quality produce anytime, with up to 350 times the yield of conventional farms and just a fraction of the land and water. Its new flagship facility in Compton, Calif., offers proof of concept, supplying Walmarts in California with leafy greens as of this year. And a facility now under construction in Virginia will grow strawberries in partnership with Driscoll, helping that company avoid shipping berries across the country to the East Coast. "We're rewriting the rules of agriculture," says CEO Arama Kukutai. While some of its competitors falter, Plenty is pointing to a vertical-farming future grounded in regional partnerships with big retail players.

—JARED LINDZON





## COLOSSAL BIOSCIENCES

*Reversing extinction*

It's been 4,000 years since the woolly mammoth went extinct, but Dallas-based Colossal Biosciences wants to change that. In 2022, it announced it had sequenced the genome of the Asian elephant, which shares 99.6% of its genes with the woolly mammoth. Combining that with DNA samples from mammoth remains could mean a rebirth of the species. The company hopes to work its "de-extinction" magic on other species, including the dodo and the Tasmanian tiger, and threatened species could be saved from extinction by editing more diversity into their genomes, making them more robust.

—JEFFREY KLUGER

## SPOTTER

*Supporting creators*

Spotter is fueling the creator economy by offering cash up front in exchange for the rights to YouTube back catalogs, so creators can invest in themselves, scale their platforms, and make real-world impact. Launched in 2019, it has deployed nearly \$800 million to a wide array of YouTubers—from MrBeast to Aaron "AB" Brown to Kinigra Deon—who reach hundreds of millions of subscribers. In addition, Spotter supplies tools and insights that aim to make the YouTubers' businesses more successful. "We take what we've learned from our community and share it so newer creators don't have to go through the same struggles," says CEO and founder Aaron DeBevoise.

—MEGAN MCCLUSKEY



## LANZATECH

*Carbon recycling*

LanzaTech is turning yesterday's carbon pollution into tomorrow's brand-name products. Its proprietary tech converts captured carbon from waste streams—including from industrial sites and agricultural residues—into material used to produce Bridgestone and Sumitomo tires, Coty fragrances, a Nivea moisturizer, and a line of Zara party dresses, among other products. "LanzaTech is revolutionizing the way we think about carbon," says CEO Jennifer Holmgren, turning it into a "resource, not a liability." In 2022 the company was named the only American Earthshot Prize finalist and completed its fourth carbon-capture facility, which will reduce a Belgian steel mill's emissions by 3.9 million tonnes. —J.L.

## 4 DAY WEEK GLOBAL

*Work-life rebalance*

The Monday-to-Friday grind is outdated, argues the nonprofit behind a raft of studies of what happens when workers drop a day without losing pay. Productivity doesn't fall, says CEO Dale Whelehan, because rested people perform better. During a six-month pilot last year, attrition went down and revenues held; 92% of participating businesses said they'd stick with the schedule. The group's studies also inspired legislation: an Australian Senate committee called for its government to back a trial, and in March U.S. Congressman Mark Takano reintroduced a 32-hour-workweek bill. Future research will focus on implications for sustainability, equity, and civic participation, says Whelehan: "We've only scratched the surface." —JEREMY GANTZ



## CHESS.COM

*OLD GAME, NEW MOVES*

*The Netflix show The Queen's Gambit and lockdowns may have catalyzed a chess renaissance, but Chess.com's savvy and often comical marketing strategy has grown it into new—and younger—markets over the past three years. Since early 2021, the company has rolled out a stream of new, offbeat robot opponents designed to attract and engage new users; a cast of "Cat Bots" introduced in January includes Scaredy Cat, Catspurrow, and the viral sensation Mittens. "We saw that there were ways we could actively grow the chess community, not just take care of the people who are already a part of it," CEO Erik Allebest says. His team's gambits have paid off. The site surpassed 100 million users in December, and daily active users doubled to 11 million between November and January, with Gen Z players powering the recent growth wave.* —GUADALUPE GONZALEZ

## HUMAN SECURITY

*Stopping bots*

About 35% of all U.S. internet traffic in the past year was driven by bots, and it has cost businesses roughly \$81 billion in advertising fraud worldwide in 2022, a figure that is expected to reach \$100 billion this year. Cybersecurity firm Human Security aims to disrupt these operations. In the past year, Human's teams took down two massive ad-bot fraud campaigns: Scylla, which targeted 89 apps and had been downloaded over 13 million times; and Vastflux, which spoofed more than 1,700 apps, targeted 120 publishers, and ran ads on nearly 11 million devices. CEO and former Air Force major Tamer Hassan runs the company with military precision, to the tune of \$100 million in annual recurring revenue in 2022. —G.G.

## METAPHYSIC

*AI for Hollywood*

Most AI companies don't have IMDb pages; Metaphysic does. The London-based company creates generative AI media in real time, as demonstrated last fall by a digital avatar of Elvis Presley performing on *America's Got Talent*. In January, it partnered with Miramax on the forthcoming film *Here* to de-age stars Tom Hanks and Robin Wright and bring the generations-spanning story to life. The company also announced a strategic partnership with Creative Artists Agency to make AI tools and services. Meanwhile co-founder and CEO Tom Graham became the first person to seek a copyright of his own AI likeness. He says they are "focused on building an ethical web3 economy where any person can own and control their biometric data." —J.L.

# INNOVATORS



## KIA AMERICA

*Powerful EV pivot*

Kia America is shedding its reputation for inexpensive cars and embracing the industry's future with stylish, award-winning electric vehicles. In 2022, the company hit a new annual sales record as it launched its first dedicated battery-only EV: the EV6 crossover, which helped Kia place second only to Tesla in U.S. EV sales for most of the year. The automaker's transformation continues in 2023, with its new three-row SUV, the EV9; 15 EV models are planned for Kia's global lineup by 2027. "People are surprised when they get into a Kia vehicle because it's not the Kia they remember," says Kia America CEO **SeungKyu Yoon**. Maybe that's why Kia says that in 2022, 60% of its customers were new to the brand. —NOVID PARSİ

## TAZO

*Responsible brew*

Tazo, a unit of Lipton Teas and Infusions, has embraced a broad definition of regenerative agriculture, supporting not just sustainable farming, biodiversity, and climate awareness, but also human rights. "In some farming communities where teas, spices, and botanicals are grown, there's climate change already impacting many communities and the day-to-day reality of poverty," says **Jami Lewchik**, head of Tazo and portfolio sustainability at Lipton. In 2022, Tazo helped efforts like Fair Trade USA's emergency program to provide food, medical supplies, and housing relief to those affected by severe floods in Assam, an Indian tea region.

—DON STEINBERG

## A24

*Fresh filmmaking*

A24 is keeping weird and wonderful indie movies alive. The production company, helmed by **David Fenkel**, has become Hollywood's tastemaker, making the films of up-and-coming auteurs culturally relevant: A24 movies dominated the Oscars this year, accounting for eight of the 20 acting nominees, with *Everything Everywhere All at Once* taking home the biggest prize (and a box-office haul of \$140 million, the company's largest yet). It has already debuted some of the buzziest—and most controversial—movies and shows of 2023: *Beef*, *Beau Is Afraid*, and *The Idol*. And with its Sundance hit *Past Lives* and Cannes Grand Prix winner *Zone of Interest*, it looks to be a favorite for Oscar gold again.

—ELIANA DOCKTERMAN

## ACLIMA

*Mapping air pollution*

Bad air's health impact disproportionately affects minority communities, but policymakers need data to make change. Across the U.S., Aclima's sensor-equipped cars are giving cities block-by-block measures of greenhouse gases and air pollutants. "Near warehouses, we can see the precise impact of diesel trucks on a particular community," says CEO **David Herzl**. "Measurements like this guide dollars and guide action." In 2022, Oakland, Calif., used its data to begin an air-quality plan that includes relocating truck yards, new building requirements, and air filtration at senior centers. Aclima is also helping New York State to meet emission-reduction goals. —D.S.





## CROCS

MASS APPEAL

Once an internet punch line, the world’s quirkiest footwear company is now a fashion phenomenon visible everywhere from airports to celebrity-filled award shows. A knack for clever collaborations—including in the past year or so with *Minecraft*, General Mills, Lisa Frank, and 7-Eleven—has helped take the slip-ons mainstream. The company knows how to give people what they want, CEO **Andrew Rees** says. “When our fans asked for adult-sized Lightning McQueen clogs, we listened—and delivered,” says Rees. Crocs Inc. has seen four years of soaring revenue growth, including a record-smashing \$3.6 billion in 2022, representing a 54% year-over-year rise. Last year’s acquisition of fellow casual-footwear brand Heydude powered some of those sales, which show no sign of slowing around the world.

—JARED LINDZON

## SCHNEIDER ELECTRIC

Cutting corporate emissions

Corporate carbon footprints can be huge, but Schneider Electric’s energy-management business works with 40% of the *Fortune* 500, helping massive clients reduce greenhouse-gas emissions. “We start by helping them understand where they are,” says Steve Wilhite, senior VP of Schneider’s sustainability business. “That’s where a lot of consultants’ work ends, but not ours.” Last year, it helped Walmart accelerate adoption of renewable energy in the megastore’s supply chain, coordinating suppliers to buy into a 12-year wind-power contract. Schneider has also acquired a bevy of software and service providers to help reach its goal of saving clients 800 million tons of CO<sub>2</sub> emissions by 2025.

—ALISON VAN HOUTEN



## THERABODY

At-home healing

Therabody’s Theragun changed how we manage muscle pain, democratizing massage guns previously reserved for athletes and medical professionals. But the company was just getting started. In 2022 and 2023, it launched 15 new products, including TheraFace Pro, an 8-in-1 skin-care device; a wearable sleep aid; a vibrating compression sleeve; and new iterations of its original claim to fame. (Last year it also kept busy suing and settling with copycats over alleged patent infringements.) Taken together, the expanded lineup helps people “relieve pain and stress, improve sleep, increase physical performance, and support skin and beauty health,” CEO and president Monty Sharma says. —J.L.



## THE NORTH FACE

Circular clothing

The opposite of wasteful “fast fashion” is circular clothing—garments that are built to last and be reborn as new products of similar quality. The North Face is pushing the trend forward with 20 new products announced in October that incorporate elements like single-fiber construction and trim that support easy disassembly and reuse. But before a fleece jacket can find new life, consumers have to send in old clothing. So the company also retooled its product take-back program, inviting customers to drop off items at stores and offering a \$10 credit to loyalty-program members for doing so. It’s all an effort “to minimize waste and promote cycle-ability,” says global brand president **Nicole Otto**. —J.L.

## GENERATION GENIUS

Streaming science

Scientist Jeff Vinokur wanted to make his subject exciting for kids in classrooms. In 2017, he and TV executive Eric Rollman co-founded Generation Genius, an educational streaming service that makes science and math videos and other content for K-8 schools. It now reaches children in 30% of all U.S. elementary schools. In high-energy videos made in partnership with the National Science Teaching Association, Vinokur and diverse casts of young people explore everything from the seasons to the water cycle to chemical reactions. This year, Generation Genius began offering science kits so kids can continue learning at home. —N.P.

**KAYRROS***Tracking hot spots*

Kayros' suite of near real-time earth-monitoring and analysis tools shine a light on greenhouse-gas-emission hot spots—and help governments and businesses get serious about taking action. Drawing on satellite imagery, AI, and geoanalytics, the French company's Carbon Watch (launched last year) can measure CO<sub>2</sub> emissions by country and sector; and its Methane Watch can detect methane hot spots like the Nord Stream pipeline leaks. In January, Kayros announced the latter will supply data to the U.N. Environmental Programme. The groundbreaking tools "give organizations access to precise, independent, verified information in close to real time," says president and co-founder Antoine Rostand.

—JARED LINDZON

**POLYGON LABS***Blockchain booster*

Polygon is pushing blockchain into the mainstream, enabling companies like Starbucks, Nike, and Meta to build more-secure applications using the distributed recordkeeping mechanism that is revolutionizing the way we keep track of what we own—from currency and investments to event tickets. Polygon president **Ryan Wyatt** says that "in a decade, most people will have a digital wallet" tied to a blockchain. The company's protocols, built atop the Ethereum blockchain, were used in November by JPMorgan to execute its first live blockchain-based trade, and in December by Starbucks to launch its Odyssey rewards program. —DON STEINBERG

**TACO BELL***Feeding fans*

Mexican-inspired fast-food chain Taco Bell is a case study in effective marketing. It has mastered relatable humor and celebrity partnerships over the past year, and it's paying off. When Doja Cat lamented the discontinuation of Mexican pizza, her flippant tweet snowballed into a successful campaign to bring the product back in May 2022, driving \$45 million in pizza sales and an 8% overall sales spike. And as a growing number of U.S. states introduced bills restricting drag performances, Taco Bell launched a drag-brunch tour across five states. The ploy helped buoy record 2022 sales, and earned praise for celebrating drag. "Many brands are exclusive, and ours is not," says CEO Mark King.

—ALISON VAN HOUTEN

**FORMULA ONE***Driving growth*

Formula One's engine continues to rev. The global auto-racing circuit generated \$2.57 billion in revenue in 2022, a 27% increase over 2019, and attendance reached 5.7 million last year, a 36% rise from pre-pandemic levels. That growth was partly powered by Netflix's *Drive to Survive* showcasing the personalities of drivers like Lewis Hamilton. It's helped draw more eyeballs, especially in the U.S., where ESPN's telecasts of F1 races averaged 1.21 million viewers last year, double 2020 levels. The circuit is also expanding its U.S. footprint; F1 will host a race in Las Vegas this year for the first time since 1982. "You can't wait for fans to come to you," says **Stefano Domenicali**, president and CEO of Formula One. "We must go and reach them directly." —SEAN GREGORY



## TERRAN ORBITAL

### SATELLITE ADVANCES

Not a lot of people paid attention on Nov. 13, 2022, when the microwave-oven-size Capstone spacecraft began orbiting the moon. But they should have: astronauts will follow Capstone's lead. Built by Terran Orbital, Capstone in May completed one of its primary missions: operating for six months in a novel, highly elliptical orbit that NASA's Gateway lunar space station will fly when it is launched at the end of 2024. A pioneer in the field of small satellites, Terran has established a robotic assembly facility that dramatically slashes production timelines. "By the end of next year," says Marc Bell, co-founder and CEO, "you can order a satellite on the first of the month and we can deliver it to you on the 30th." And the company hopes to prevent orbital litter: its earth-orbiting satellites are designed to re-enter the atmosphere and vaporize at the end of their useful lives. —JEFFREY KLUGER



## THREDUP

*Slowing fast fashion*

Thanks to surging inflation and increased awareness of the environmental impact of fast fashion, resale has become one of fashion's hottest sectors, and online consignment marketplace ThredUP is capitalizing. This year, its Resale-as-a-Service offering allowed brands like H&M and J.Crew to host online resale shops for their own goods—giving retailers the platform to cut back, and positioning ThredUP for significant growth. "If we can help brands build a direct, circular relationship with their customer, that advances the sustainability work they are trying to do," says CEO James Reinhart. By December, it counted 42 brands as clients, and boosted revenue to \$288 million.

—CAITLIN PETREYCIK

## APPLIED MATERIALS

*Chipmaking consortium*

In May, Applied Materials, the largest maker of machines that produce semiconductors, announced it will spend up to \$4 billion to build the EPIC Center, a huge R&D campus in Silicon Valley aimed at rebuilding U.S. influence in chipmaking. Once completed, it'll be the biggest facility of its kind, providing university researchers and chipmakers like Intel and Samsung with dedicated space and early access to advanced tools to design new kinds of chips. The company says the facility could house \$25 billion of research in its first decade, with anticipated funding from the federal CHIPS Act doing what it's intended to do. —D.S.



## PAPAYA GLOBAL

*Moving money*

CEO Eynat Guez thrust her Tel Aviv-based payroll-management software company into the spotlight in January, when it withdrew about \$100 million from Israeli banks to protest Prime Minister Benjamin Netanyahu's plan to overhaul the judiciary. Other firms joined in. "If you decide to lead something, you need to be brave enough to say your opinion out loud," Guez says. Her \$3.7 billion company knows how to move money in 160 countries. Cross-border payments have long been slow and arduous, but with a growing slate of money-transfer licenses and a new partnership with JPMorgan Chase, Papaya Global helps companies with global workforces—including Toyota and Microsoft—quickly pay employees wherever they live. —D.S.

## HUGGING FACE

*Collaborative AI*

A recent memo from inside Google suggested that despite investing billions into AI research, the company and its big-name competitors were falling behind: "While we've been squabbling, a third faction has been quietly eating our lunch." That faction is the open-source community, an amorphous group working on AI in decentralized collaboration. One of its key institutions is Hugging Face, a platform for sharing data, connecting to powerful supercomputers, and hosting AI apps; 100,000 new AI models have been uploaded to its systems in the past six months. "The biggest risk," says CEO Clement Delangue, "is to have power and understanding controlled and concentrated in the hands of a few." —BILLY PERRIGO

## VIRTA HEALTH

*Fighting diabetes*

Type 2 diabetes care has long centered on management. Virta Health aims to flip that paradigm to focus on reversal: after one year, clinical-trial participants eliminated 63% of their diabetes-specific medications, and 94% reduced or eliminated insulin use. "Traditional disease management for chronic diseases hasn't worked. It's largely pharmaceutical-based," president Kevin Kumler says. The program combines telehealth support with personalized nutrition to help patients develop better dietary habits, and can lead to significant weight loss. In the past year, Virta has partnered with a growing number of health-insurance plans, including Humana and Banner Aetna, making it more widely available. —ANGELA HAUPT

## RUNWAY

*Imagination on film*

If 2022 was the year AI image generators shot into the public consciousness, then 2023 might be the year of AI video. Leading the way is Runway, a New York City-based startup building AI-backed "text to video" and video-editing tools that can help anybody—including the team behind the mind-bending, Oscar-winning film *Everything Everywhere All at Once*—turn their ideas into moving pictures much more cheaply than ever before. The platform has racked up millions of users, the company says. "So many of the stories we've told ourselves for the last 150 years are rooted in one idea of how film and videos and images work," says Runway CEO Cristóbal Valenzuela. "We're entering a completely new paradigm." —B.P.

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## TITANS

**BYD***Global EV powerhouse*

BYD is the world's most important automaker that most Americans have never heard of. The Shenzhen-based firm may shun the U.S. market for political reasons, but it accounts for 39% of electric or hybrid cars sold in China—the world's largest auto market—and is present in 53 countries and regions around the globe. The \$100 billion firm—whose initials stand for “Build Your Dreams”—aims to become the world's top EV maker by selling 3.7 million cars in 2023, compared with a projected 2 million for Tesla. Backed by Warren Buffett, and led by founder and CEO **Wang Chuanfu**, it's a vital driver of the green-energy revolution as the leading clean-car brand in markets as diverse as Brazil, Colombia, Israel, and Thailand. —**CHARLIE CAMPBELL**

**MICROSOFT***Integrating AI*

A few years ago, it may have looked as if Microsoft's most revolutionary days were over. But CEO **Satya Nadella** has quietly been making smart bets on AI, which have begun to pay off big-time. Billion-dollar investments in OpenAI—which uses Microsoft supercomputers to power its breakout chatbot ChatGPT—positioned the company at the fore of the AI revolution, prompting competitors like Google to respond. Microsoft is now integrating AI into its software, from Bing to Office, touching the lives of hundreds of millions of users. Its subsidiary Github uses OpenAI's tech to power Copilot, a tool with 100 million users that has revolutionized coding by allowing people to turn natural language into functional computer code. —**BILLY PERRIGO**

**LAND O'LAKES***Fielding change*

Land O'Lakes does far more than sell butter. The century-old cooperative has ramped up efforts to help farmers adopt regenerative agriculture practices, like using cover crops to improve soil health, which in turn makes food more nutritious. It also helps soil absorb atmospheric carbon. Under CEO **Beth Ford**, Land O'Lakes' sustainability business, Truterra, has paid farmers over \$9 million to sequester 462,000 metric tons of carbon. With support from a new \$90 million USDA grant, Truterra aims to help up to 20,000 farmers and dairy producers reduce greenhouse-gas emissions by about 6.9 million metric tons of CO<sub>2</sub> over five years—roughly equal to taking 1.5 million cars off the road for a year. —**NOVID PARSİ**

**JPMORGAN CHASE***Big banking*

America's largest bank once again assumed the mantle of industry savior in May, stepping in to pay the FDIC \$10.6 billion for the remains of First Republic, the largest bank failure in U.S. history after that of Washington Mutual—which JPMorgan bought at the height of the 2008 financial crisis. The new deal should sustain many First Republic branches and employees, though concerns remain about the long-term health of midsize banks, excess bank consolidation, and the reliance of the economy on one firm's self-described “fortress balance sheet.” “This part of the crisis is over,” JPMorgan CEO **Jamie Dimon** assured investors. “For now, everyone should just take a deep breath.” —**DON STEINBERG**



## MAJOR LEAGUE BASEBALL NEED FOR SPEED

Baseball has always been obsessed with numbers: home runs, strikeouts, runs batted in. Major League Baseball's 2023 success can be summed up in three digits: 2:39. As in 2 hr. 39 min., the average time of a game this season, compared with 3 hr. 6 min. a season ago. In recent years baseball, whose overall annual revenue approached \$11 billion in 2022, has faced a slew of criticism for taking too long. So this year, MLB instituted a pitch clock—15 seconds to hurl with the bases empty, 20 seconds with a runner on—to quicken the pace. The rule, so far, has worked; MLB commissioner Rob Manfred expects attendance to rise by up to 500,000 from prepandemic levels.

—SEAN GREGORY



## SAMSUNG Smartphone trendsetter

Samsung and Apple are duking it out for first place in the global smartphone market, and the Korean conglomerate took the top spot in early 2023. When it comes to foldables, Samsung has become a dominant force. Apple is playing catch-up, with rumors that its first foldable is set for 2024 (or 2025), as Samsung releases fifth-gen Galaxy Z Fold and Galaxy Z Flip models this year. Samsung even partners with companies to allow, for example, YouTube videos to continue playing as a screen unfolds, or two Microsoft 365 apps to run side by side in split-screen mode. Beyond foldables, Samsung's Galaxy S23 Ultra, released in February, pushes the camera-phone bar higher.

—GUADALUPE GONZALEZ

## SK GROUP Battery build-out

South Korea's second largest conglomerate is making big bets on American-made EV batteries. SK's partnerships with automakers to build new battery factories—fueled by federal clean-vehicle credits that encourage domestic production—will help reduce U.S. reliance on China and create a southern battery belt. In April, SK announced plans with Hyundai for a \$5 billion plant in Georgia. A joint venture with Ford now under way involves two massive battery facilities together worth \$11.4 billion, including one in Kentucky that will be the country's largest. "The U.S. is showing what can happen when the right conditions converge to support EV growth," says chairman Chey Tae-won. —D.S.

## SIEMENS Digitizing factories

At age 175, industrial-technology powerhouse Siemens has its sights on the metaverse. Its Xcelerator platform, launched last year, includes digital-twin software to create photorealistic virtual versions of real-world manufacturing facilities. Companies are using Xcelerator to speed up production of electric vehicles, improve battery-cell manufacturing, and reduce factory carbon footprints. Siemens also has a multiyear contract with the U.S. FDA to help medical-device companies speed product development and increase manufacturing capacity using digital-twin techniques. The "industrial metaverse," says CEO Roland Busch, "has the potential to solve many real-world problems."

—JARED LINDZON



## DISNEY Corporate citizen

Future historians looking for a crisp illustration of the cultural divisions in 2020s America will find it hard to resist this one: a 100-year-old company built on family fun in a political showdown with a conservative governor looking to make his name. That showdown intensified in May when Disney canceled a \$1 billion development project in Orlando as part of its feud with Governor Ron DeSantis. Companies that endure, says Bob Iger, who unexpectedly returned as CEO in November, do not abandon core values. And Disney remains formidable: In 2022, its film studio was the world's top-grossing for a seventh straight year.

—BELINDA LUSCOMBE

**LVMH***King of luxury*

Luxury-goods giant LVMH became the first European company to surpass the \$500 billion mark this April, joining the top 10 largest businesses in the world by market capitalization and making its CEO, **Bernard Arnault**, the world's richest person in the process. The milestone comes after the conglomerate—whose brands include Louis Vuitton, Christian Dior, Moët & Chandon, and Tiffany—benefited from a luxury-purchase uptick in China after COVID-19 lockdowns ended. To meet new demand, it plans to open a two-story Louis Vuitton outpost in China's duty-free island of Hainan, following recent expansions in Fuzhou, Guiyang, and Nanning.

—CAITLIN PETREYCIK

**TIKTOK***COMMANDING ATTENTION*

TikTok has over 150 million users in the U.S. alone, but it's the company's ownership structure that garners much of the attention it receives today. The short-video app, which helped launch the careers of chart-topping artists from Lil Nas X to Doja Cat, is owned by Beijing-based ByteDance, prompting privacy and national-security concerns over alleged data transfer to the Chinese state. Over a dozen governments, including those of the U.K., the U.S., and Australia, have banned the app on official devices. Seeking to allay the concerns of a U.S. congressional panel in March, CEO **Shou Zi Chew** said TikTok employs 40,000 moderators to track harmful content and is leading a \$1.5 billion project to create a new U.S. subsidiary specifically to safeguard American user data. "We will keep [TikTok] free from any manipulation by any government," Chew said.

—CHARLIE CAMPBELL

**KICKSTARTER***Inside-out impact*

In 2022, the online crowd-funding platform saw its biggest campaign ever: nearly \$42 million for a sci-fi author's self-publishing effort. But recent changes inside Kickstarter are just as notable. Workers at the company unionized, and shaved a day off its workweek, setting a powerful example of workers' rights in tech. "We've been just as productive or even more productive with a four-day workweek," says Everette Taylor, who in September became the company's first Black CEO. Kickstarter's senior leadership is now 75% women and 63% people of color, and it donates 2.5% of its after-tax profit to organizations fighting inequality. The focus is on maximizing Kickstarter's real-world impact rather than revenue, Taylor says. —NOVID PARSII

**APPLE***Shortening the supply chain*

Under pressure to reduce its reliance on Chinese factories for economic and human-rights reasons, the \$394 billion company is pulling its supply chain closer to home in ways that could boost the U.S. economy. In May, it announced a multibillion-dollar deal with semiconductor producer Broadcom for radio-frequency chips and other wireless components that will be made at facilities in Colorado and elsewhere domestically. It's part of Apple's plan to invest \$430 billion in the U.S. over five years, likely with generous aid from the federal CHIPS Act. "All of Apple's products depend on technology engineered and built here in the United States," CEO Tim Cook said in a press release, touting the "ingenuity" of U.S. manufacturing.

—DON STEINBERG

**CATL***Battery behemoth*

Based in Fujian, China, Contemporary Amperex Technology Co. Ltd. (CATL) is the world's largest EV-battery maker, and the one to beat in battery tech. This spring it started mass-producing the new Qilin battery, which can extend EV range to 600 miles on a single charge. (U.S. EVs average about 300 miles.) In April, it unveiled new technology for a semi-solid-state lithium battery it says will store nearly twice as much energy as the best ones on the market today, further expanding EV range and bringing electric passenger planes closer. Most groundbreaking innovations come with caveats that commercial development is years off, but CATL says this one will be in production in six months.

—ALEJANDRO DE LA GARZA

**LIVE NATION ENTERTAINMENT***Taking the stage*

Chaotic ticketing for Taylor Swift's blockbuster Eras tour was a reminder of Live Nation Entertainment's power over in-person events. The Ticketmaster parent company, which says it advocates for artists' control of ticket resales, is the global leader for live shows, operating and promoting more than 40,000 a year, and over 100 festivals. Despite the controversy, first-quarter 2023 revenue surged 73% from the previous year, to \$3.1 billion, and a record 19 million fans came out IRL—a remarkable recovery from the pandemic pause. Even facing a federal investigation into its position and practices, Live Nation continues to sell more tickets than anyone else in the world. —MARIAH ESPADA



LVWH: NATHAN LAINE—BLOOMBERG/GETTY IMAGES; TIKTOK: CHRISTOPHER GOODNEY—BLOOMBERG/GETTY IMAGES; MATTEL: JASON TIDWELL—MATTEL, INC./REUTERS; COURTESY CVS

## IBM

### QUANTUM LEADERS

For decades, “Nobody gets fired for buying IBM” was an immutable business maxim. The New York behemoth was so dominant that shopping elsewhere was admitting defeat. But IBM’s crown slipped as Asian competitors gobbled its lunch. No longer. The \$120 billion firm is back at the vanguard of revolutionary technology, running more transformative quantum computers (60) than the rest of the world combined, while partnering with giants from Boeing to Sony. In just seconds, quantum computers can solve problems that would otherwise take years, from complex calculations about weather patterns to optimizing drug discovery, battery performance, and more. In November, IBM launched the most powerful quantum-processing chip ever produced—the 433-qubit Osprey—and in May set its sights even higher, announcing a 10-year plan to make a 100,000-qubit processor. —C.C.



## MATTEL

### Big-screen Barbie

Mattel, the company behind Barbie, American Girl, and Uno, is rapidly expanding from toys to digital games, merchandise, and films driven by its storied IP. This summer, Mattel will debut Greta Gerwig’s much hyped Barbie movie, the iconic doll’s first on the big screen in her 64-year history. Barbie is just the first of 14 projects in development from Mattel’s new films division, ranging from a Hot Wheels movie with J.J. Abrams to a Barney film with Daniel Kaluuya. Led by CEO Ynon Kreiz, Mattel also won back the lucrative Disney Princess contract from rival Hasbro, launching new dolls this year, and has broken ground on a theme park in Arizona.

—ELIANA DOCKTERMAN

## LOCKHEED MARTIN

### Ramping up production

Two weapons have proved particularly crucial in Ukraine’s fight against Russia—both made by the largest U.S. defense contractor, which has upped production to fill new orders. High Mobility Artillery Rocket System vehicles can fire rockets to hit targets nearly 50 miles away, and the shoulder-mounted antitank Javelin system (jointly produced with Raytheon) allows troops to quickly take cover after firing a guided missile. The U.S. has provided more than 10,000 of the latter to Ukraine as of May 21. “[Our products] have proven to be effective for Ukrainian forces courageously defending their nation,” says COO Frank St. John. The company’s stock has benefited too, rising more than 25% from January 2022 to June 2023.

—GUADALUPE GONZALEZ



## CVS HEALTH

### Health care giant

“Health care is broken,” says CVS Health’s chief medical officer Dr. Sree Chaguturu—and his company wants to put it back together. Over the past year, the drugstore chain, led by CEO **Karen Lynch**, has dropped close to \$20 billion on acquisitions of Oak Street Health, a senior-focused primary-care network, and Signify Health, a home-health-care provider. Between those deals, its 2018 acquisition of health insurer Aetna, and the continued expansion of the MinuteClinic walk-in-care brand, which now operates in more than 1,100 locations nationwide, CVS has cemented its role as a player in nearly every aspect of U.S. health care.

—JAMIE DUCHARME

## JOHN DEERE

### High-tech tractors

The iconic 186-year-old manufacturer still makes green tractors, but now loaded with digital tech that aims to bolster farmer productivity. Last year, Deere debuted See & Spray Ultimate, which uses computer vision and machine learning to detect and spray only weeds (not crops) and its first fully autonomous tractor, which can be remotely managed via an app. Half a million machines worldwide are now connected; John Deere aims for 1.5 million by 2026, with a bespoke satellite service on the horizon. “We’re looking to move the farmer away from broad decisions for an entire field to plant-level management—opening up a new level of visibility and precision on the farm,” says CTO Jahmy Hindman. —N.P.





# LEADERS

## Skims

*Kim Kardashian and the shaping of culture*

BY BELINDA LUSCOMBE

**A**T THIS JUNCTURE, MOST PEOPLE HAVE already made up their minds about Kim Kardashian. They've either decided she's an early nepo baby with zero talent who has ridden her sex appeal and shamelessness to fame and fortune and can safely be ignored, or she's a once-in-a-generation mix of beauty and determination who hustled her way up from being Paris Hilton's assistant with her weapons-grade detector for cultural relevance, and can move any needle she pushes.

Until recently, the one person who didn't seem to have quite made up her mind about Kim Kardashian was Kim Kardashian. Her uncertainty is reflected in the slew of businesses she started, including two beauty lines, a jewelry collection, multiple perfumes, Kimojis, and a mobile game, most of which were profitable for a season, but never really stuck. "At the beginning, when I didn't really understand where my career was going because I was just kind of winging it, I would do licensing deals with a lot of different companies that would contradict themselves, like a cupcake brand with a weight-loss pill at the same time," she says. Skims, which first offered underwear and shapewear but expanded into loungewear, swimwear, tees, and dresses, has changed that—and the way the business world sees her. Talking about her most successful solo venture, Kardashian seems relieved. "I feel like, OK, I did it."

Founded in late 2019, Skims says it made \$500 million last year, 25% more than projected and 80% more than it made in 2021, which was up 90% from the year before. So far, 2023 has been a down year for underwear sales, but buoyant for Skims; CEO Jens Grede, who co-founded the company with his wife Emma and Kardashian, says that sales of its intimates increased 86% year over year in April. Investors have noticed; in its latest round of funding in January 2022, the brand, which is privately held, was valued at \$3.2 billion, double what it had been valued just nine months prior. (That's \$2 billion higher than either her sister's Kylie Cosmetics or 2000s-era shapewear icon Spanx ever climbed.) Grede says he fields offers from outside investors weekly. Arguably, nothing any single Kar-

dashian has done has been this astonishingly successful since their dad Robert took on the legal defense of O.J. Simpson.

There are subtle signs of the company's impact, like a surge of copycats being dubbed as #Skimsdupes on social media feeds. There are less subtle signs too; the company is testing new brand extensions, such as a foray into bridal wear and, Kardashian exclusively tells TIME, a line of men's loungewear and underwear launching this fall. (And yes, there will be men's shapewear, she adds, but that will come later.)

"Obviously you have big hopes, but this definitely exceeded everything that I ever imagined," says Kardashian, who began to sense the brand would be a hit when she walked into "some Hollywood party" and was greeted by a guest raising her top to flash her Skims. "I still have, like, impostor syndrome or whatever," Kardashian says. "But I think that's part of what keeps me going."

**NOBODY IS LETTING ON** whose idea Skims was, but Emma Grede started a denim brand with Khloe Kardashian, and at some point, Emma's husband Jens Grede and Kim discovered they had overlapping interests: Kim wanted better shapewear, and Grede wanted better underpants.

"It started off with simply finding shapewear that was a skin tone that would match my color," says Kardashian. "I used to take my shapewear and dye it with tea bags and coffee in the bathtub." It was an imperfect method; she had to wear soaking-wet shapewear under her clothes at Cannes after one last-minute dye job. A fan of dramatic slits, she would cut one leg off her Spanx and then tape the cut edge to her thigh so it didn't roll up. Skims isn't the first to offer 10 skin tones (from "sand" to "onyx"), and sizes from XXS to 4X, but some of the unusual shapes, such as one-legged or the low-back version, were new even to fashion cognoscenti.

Skims launched at the dawn of the pandemic, when online retailing was hot. Brand awareness was a snap, since Kardashian has more than 350 million followers just on Instagram, and plenty

of people are interested in ads of her in her scanties. Unlike some of Kardashian's prior offerings, the products got good reviews. "They have a really great fabric," says Tomima Edmark, the CEO of the online lingerie retailer Her Room. "It's very soft, it stretches like crazy. That's why it fits everybody. And the price point came in really well." Bodysuits, for example, are less than \$60.

Kardashian has put her own money into Skims and is the biggest shareholder. She's also usually the fit model, which can mean hours of trying on tight underwear every week. She estimates she has tried on north of 7,000 items. "I always like to see it on myself," she says. "I can absolutely tell when I miss a few drops." On top of that, she's Skims' creative director, choosing the fabrics, the cuts, and the campaign concepts, photographers, and models, when they're not her.

Grede says Kardashian is one of the best creatives he's worked with. "To be a successful creative director today, you've got to have a point of view of the world," he says. "You've got to have a very clear aesthetic that is identifiable to you, and you've got to be able to intimately understand popular culture."

When he first showed Kardashian the packaging for Skims, she replied that it didn't look like something you'd find in her home. It went back to the drawing board. It was Kardashian's idea to get Snoop Dogg and his grandkids to do the Christmas campaign and to use the two actresses who played grifters in *White Lotus* for another. "She knows how to orchestrate popular culture," says Grede.

Kardashian did more, however, than find a way to bring these styles to market. She also helped create the appetite for them.

**IT'S DIFFICULT TO TALK** about Kardashian's contribution without engaging in the impolite business of discussing her figure, but it seems equally wrong to ignore it, since she's put such a lot of her time and money into it and it's the shape that launched a thousand shipments.

The reality star has been both valorized and criticized for the way she has used her curves to build her brand. There are those who feel her popularization of the pear shape has been a liberation, and others who

believe she owes more to Black and Latina women than she has ever acknowledged. But most people agree that she has not let her assets go to waste.

"A big driver of fashion change is how we want our bodies to look and what kind of silhouette and body shape we think is beautiful at this time," says Larissa King, a lingerie designer and assistant professor at New York City's Fashion Institute of Technology. "As Kim Kardashian became more widely admired, people wanted really curvy behinds. So our pants got higher, so they did not interrupt that curve on the back, and the focus was on the waist and the curves and hips and rear end." Once pants got higher, underwear changes to accommodate.

It's not just beauty standards; commerce shifted in the star's favor as well. The Kardashians are a direct-to-consumer family. And they work hard at it. Being a reality star is the direct-to-consumer version of fame. Dominating social media is the direct-to-consumer version of PR. While Skims is available in some stores and online retailers, most

sales are directly through Skims.com. About a fifth of its customers are international, even though shipping is clunky. Since the Kardashians have colonized the international attention ecosystem, Skims' reach stretches around the globe.

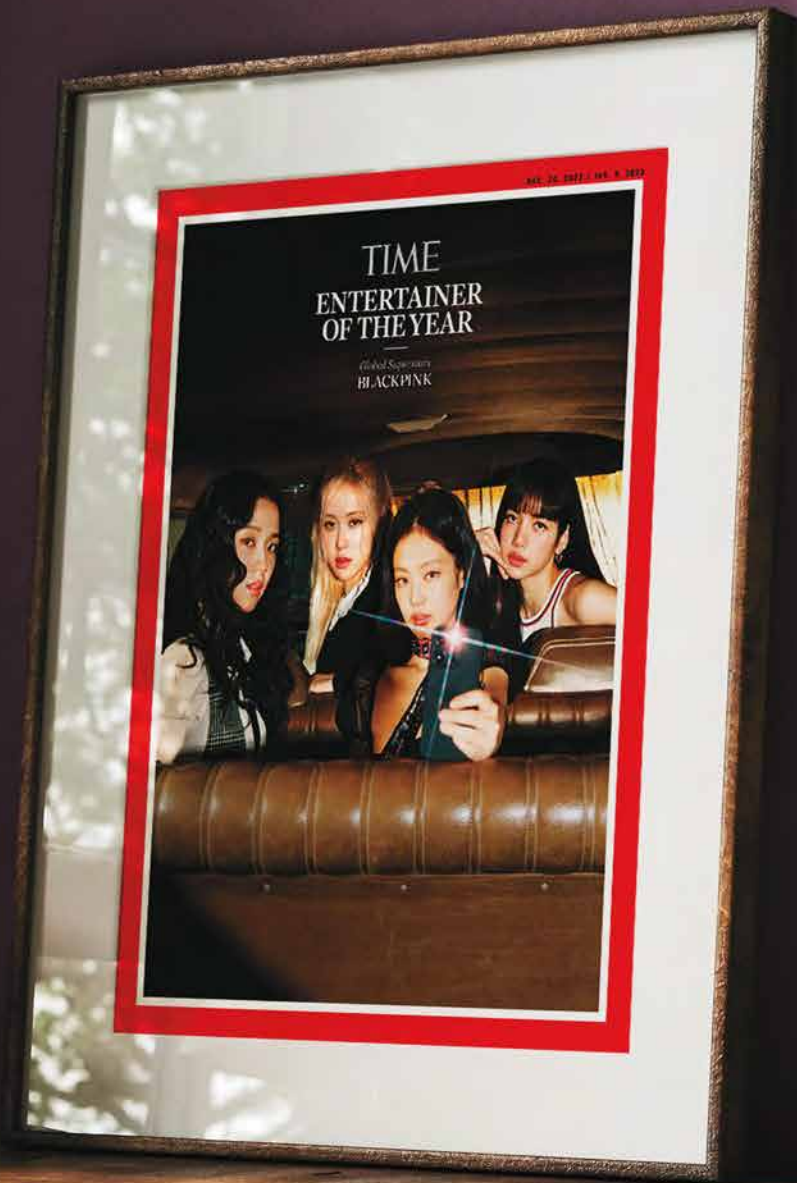
**EVEN WITH INITIAL SUCCESS**, celebrity brands are a high-risk proposition. Fame can fizzle, or a star can trip up, and the alchemy has to be just right. Grede shrugs off the twin hazards of saturation and scandal. "I cannot lose sleep over something I can't control," he says. Besides, he figures it will take an extraordinary event to take his co-owner down. "Kim is an incredibly sophisticated person," he says. "I don't know which crisis she hasn't been able to emerge from."

It's true that the Kardashians have leaned into their more dysfunctional moments; Kim once told her sister Kourtney, during a scheduling conflict, that she was "the least exciting to look at," and the comment made it to air. They operate under the credo that crisis is good for business and therefore good for the family, so the border between their private and public lives has always been permeable. But many of the Kardashian women are mothers



Shapewear "always just makes me feel some kind of safety and security under my clothes," says Kardashian, center

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now, and mothers get judged according to a different standard. As the Kardashian West children get older, their involvement in the family's influence empire becomes fodder for criticism.

Kardashian admits that she hasn't quite figured out exactly how to merge her children into the business. "Sometimes it's trial and error," she says. A recent get-together between the female rap star Ice Spice and Kim's 9-year-old daughter North led to an Ice Spice appearance in a Skims campaign. But it also led to a public complaint from North's father Kanye West, when a video of North rapping along with some of Ice Spice's more salacious lyrics was uploaded to North and Kim's shared TikTok account.

"As soon as I saw the words, I was like, 'Oh no, we're taking this down,'" says Kardashian, who sees TikTok as an important outlet for the oldest of her four children. "I saw on the internet, [people saying] 'Kanye was right,' and maybe he was in that instance," she says. "But she loves making slime videos and doing her little hair tutorials, and I will fight for her to be creative."

Kardashian is refreshingly game about discussing her errors of judgment. And she has learned how to handle them: own up, right the wrong, move on. Skims was initially called Kimono, but after outrage in Japan, she swiftly found and announced another name with "Kim" in it. Last year, she reached a \$1.26 million settlement with the SEC for not disclosing she was paid to promote a crypto product. "What I learned was to not really trust everyone in spaces that you don't really know about," she says. "I try to not make the same mistakes twice."

Fundamentally, she believes the appeal of her business lies in her authenticity: that she admits to not being able to achieve her world-famous shape without the help of stretchy pants. Perhaps she learned from her younger sister—Kylie Jenner was famously mocked for

her lip filler before launching her billion-dollar lip kits—that Achilles' heels, or in Kardashian's case, Achilles' heinies, are sometimes strengths. Of all the enterprises she has tried, she says, this one is the most *her*. "It's just a part of me," she says. "I take it really personally. It started off of my body and my shapes, and it's very vulnerable."

**IT'S AN OPEN QUESTION** whether Kardashian, whose brand is aggressively feminine, can successfully launch men's underpants. Grede, who describes the goal as underwear that still looks good

at the end of the day, points to Lululemon as a brand that crossed the gender divide. Skims says the men's collection will be marketed around athletes and musicians, an overlapping social circle that the Kardashian-Jenner sisters have been known to run in.

Kardashian has certainly surprised her doubters before. She's studying law and has

passed California's baby bar exam, which has a notoriously low pass rate. In 2018, she helped persuade President Donald Trump to commute the life sentence of Alice Johnson, who had served 20 years for a nonviolent drug offense, and to pass long-overdue criminal-reform legislation. In a sign of how much more seriously she's been taken since founding Skims, in September she founded an investment fund, SKKY, which is currently seeking capital to invest in clothing and food and beverage companies.

But, at 42 years old, Kardashian is cognizant that she may have a "time stamp," as she puts it. "I understand that maybe in my 50s, I'm not going to be wanting to pose in my underwear," she says. She hopes to cut back her appearances and pose in slightly fewer campaigns each year. But she's also not giving up on what made her famous without a fight. "We'll do anything we can to look as young as we can," she says, switching to the royal we, as she should. "We're not going to go out not trying."

**'MAYBE IN MY 50s, I'M NOT GOING TO BE WANTING TO POSE IN MY UNDERWEAR.'**

## BRISTOL MYERS SQUIBB

*Inclusive drug research*

Drug developers have long needed to diversify clinical trials to improve the safety, efficacy, and adoption of new therapies among historically underrepresented groups. "This isn't new for us," says Giovanni Caforio, CEO of Bristol Myers Squibb, which makes treatments for everything from cancer to HIV/AIDS. But BMS made big strides this year. Now, 58% of its U.S. trial sites (compared with a 25% goal) are located in communities that have at least a 30% nonwhite population. It also increased nonwhite-patient recruitment by 22%. There's more work to be done, but BMS's sustained focus on diversity is yielding real progress.

—ALISON VAN HOUTEN



## INTREPID TRAVEL

*Responsible globetrotting*

When travel ground to a halt in 2020, the benefits of reduced air pollution became obvious. "We saw villagers in India and Nepal being able to see the Himalayas for the first time," says James Thornton, CEO of Intrepid Travel, which has focused on small-group travel since its founding 34 years ago. People want to travel more responsibly—both environmentally and socially—and business is booming for the certified B Corp, which saw record-breaking booking days after launching a flight-free program (and more than 100 Indigenous-led tours) last year. The carbon-neutral company was the first global tour operator to establish verified, science-based carbon-reduction targets. —A.V.H.



## LEXIE HEARING

*Accessible aids*

Millions of Americans who could benefit from hearing aids don't use them because of issues like stigma and cost, so when the FDA approved over-the-counter sales of hearing devices for the first time in 2022, experts hailed it as an opportunity to expand access and save customers thousands of dollars. A shrewd partnership with Bose and distribution in 12,000 stores across the U.S. helped hearing-aid maker Lexie Hearing leap ahead of the pack. It now expects to earn \$60 million in revenue and expand to many more stores this year. But COO Seline van der Wat says customer service is key to Lexie's success. "We don't just get hearing aids into people's ears," she says. "We keep them there." —TARA LAW

## CIRCLE

*Redeeming crypto*

Circle is pioneering a redemptive use for cryptocurrency: humanitarian aid. In December, it partnered with the U.N. High Commissioner for Refugees to distribute Circle's USD Coin via secure digital wallets to Ukrainian refugees, who can exchange it for local currencies. Pegged to the U.S. dollar, USDC is a "stablecoin" intended for reliable digital use. The \$30 billion USDC in circulation is backed by real dollars Circle has in regulated U.S. financial institutions—in contrast to the more volatile crypto norm. The firm's big goal? To make transfers via blockchain as hassle-free as email. "We like to say we're boring, but boring turns out to be great business," says CEO and co-founder Jeremy Allaire. —DON STEINBERG



## MAVEN CLINIC

*CARING FOR WOMEN'S HEALTH*

In the wake of the June 2022 U.S. Supreme Court decision overturning *Roe v. Wade*, Maven Clinic—a platform that connects its 15 million members to women- and family-focused medical providers ranging from fertility specialists to sleep coaches—saw a 67% increase in business from companies looking to support their employees. Companies use Maven to reimburse employees who must travel for care (abortion-related or otherwise), and Maven advocates advise members on everything from their insurance coverage to handling an unplanned pregnancy. In November, CEO **Kate Ryder** raised \$90 million at a \$1.3 billion valuation, making Maven the highest-valued women's health startup. The platform is also available to Medicaid beneficiaries in five states and counting, Ryder says, in hopes of connecting more people to quality care. —JAMIE DUCHARME

## WÄRTSILÄ

*Storing power*

Companies have spent trillions investing in clean energy like wind and solar power, but the question remains: What happens when the sun isn't shining and the wind isn't blowing? Finnish firm Wärtsilä is fixing the problem by constructing a flurry of facilities that store renewable energy and then dispatch it to the grid when it's needed. In recent months, it completed work in critical locations like Hawaii (heavily reliant on imported diesel fuel) and on a new, utility-scale storage system in Texas (plagued by power outages in recent years). New facilities are also sprouting up across the globe from Chile to the U.K. "The market is still growing," says CEO Hakan Agnevall. "And not only in the U.S." —JUSTIN WORLAND



## DUOLINGO

*Polyglot chatbot*

AI has been under the hood of the world's most downloaded education app for years: a homegrown machine-learning model, Birdbrain, anticipates how difficult exercises should be to keep users engaged. But generative AI—specifically, OpenAI's GPT-4—is moving Duolingo closer to its holy grail of replicating one-on-one tutoring. Duolingo Max, a new subscription tier launched in March, lets users practice scenario-based (e.g., a French café) conversation skills. Company founder and CEO **Luis von Ahn** says more advanced AI "will allow us to scale high-quality education to everyone in the world." Daily active users grew 62% in the first quarter of 2023, compared with one year earlier. —JEREMY GANTZ

## PATAGONIA

### INVESTING IN EARTH

There's corporate philanthropy, and then there's Patagonia. In September, founder Yvon Chouinard and his family set a bold new standard for how companies can address the climate-change crisis. They effectively gifted the outdoor-clothing retailer's annual profits (an estimated \$100 million) in perpetuity to defend the planet via the Holdfast Collective, a new nonprofit organization that now owns 98% of the private company—and doesn't plan to sit on dividends. CEO **Ryan Gellert** continues to lead the company. "If we have any hope of a thriving planet—much less a thriving business—50 years from now, it's going to take all of us doing what we can," says Corley Kenna, Patagonia's head of policy and communications.

—JARED LINDZON



## CHIPOTLE

### Social media maven

Chipotle has earned praise for helping farmers switch to organic produce, using renewable energy, composting, and directly tying executive bonuses to ESG goals. Over the past year, it also captured the attention of Gen Z, becoming a top food brand on TikTok with 2.2 million followers, launching a popular Roblox experience, and generating its second highest sales day ever with a burrito giveaway on Twitter. "We wanted to be where our consumer was, whether it's TikTok, gaming, sports," says CMO Chris Brandt. Translating TikTok hacks to real menu items and starting TikTok challenges with prizes like a year of free burritos has been a runaway success. —G.G.

## STRIPE

### Simplifying sales

In 2022, 1 in 10 people worldwide transacted with a business powered by Stripe, according to the company, co-founded by brothers John and Patrick Collison. It's quite a feat, and part of the company's mission to "increase the GDP of the internet." Stripe's millions of customers collectively processed more than \$817 billion in 2022, up 26% from the prior year. It hasn't been impervious to volatile conditions—it laid off 14% of its workforce in November, and slashed its valuation from \$95 billion two years ago to \$50 billion in March—but the payment processor continues to build, adding automation tools and major new companies like Amazon and Ford to its roster. —G.G.

## BREX

### Boosting startups

Co-CEO Henrique Dubugras says think of Brex as a "spend platform." The company launched its corporate charge card for startups five years ago, and has since grown into a fintech conqueror. Valued at \$12.3 billion in 2022, it has made 10 acquisitions, and after Silicon Valley Bank's collapse, it received \$2 billion in deposits and opened 4,000 new accounts. Last year Brex launched Empower, software that links Brex cards and accounts to a custom expense-management service. The company services startups, helping new businesses get off the ground, as well as enterprise clients, including DoorDash, Indeed, Coinbase, SeatGeek, and Lemonade. —G.G.

## NVIDIA

### Cutting-edge chips

Training generative AI models like ChatGPT requires thousands of the fastest graphics processing units (GPUs). With 88% of the GPU market, Nvidia's cutting-edge chips are enabling the AI boom as its industry struggles to keep up with exploding demand. Nvidia's flagship AI chip, the H100, has been fetching \$40,000 on eBay—well over its retail price. After touching a \$1 trillion market cap in May, the company announced that an even more powerful GPU-CPU combo chip, the GH200 (named after computing pioneer Grace Hopper), has entered full production. Meanwhile, Nvidia's new supercomputer cloud service lets anyone train their own AI models for \$36,999 per month.

—ALISON VAN HOUTEN



## CHIEF

*Helping women rise*

In 2023, it's still a victory for nonmale S&P 500 CEOs to outnumber those named John. Through coaching, peer groups, and talks with leaders like Michelle Obama, membership-based Chief helps female and nonbinary executives get raises and promotions. A member survey last year found nearly half had received a raise since joining. Chief also works to stave off burnout. "We want to make sure that women leaders aren't dropping out when they hit these positions of power," says CBO **Lindsay Kaplan** (left), who co-founded the company with CEO **Carolyn Childers** (right). The network faced criticism of its approach to racial inclusivity, but continues to grow. In 2023, it launched Chief Enterprise to help companies like Morgan Stanley and IBM advance gender-diversity goals. —A.V.H.

## GANNI

*Eco-conscious fashion*

Despite having the highest B Corp certification for a contemporary fashion company when it was certified in 2022, with a score of 90.6, trendy Danish label Ganni would never call itself sustainable. "At its core, fashion thrives on newness and consumption, which is a major contradiction to sustainability," the brand's website states. In a retail landscape rife with greenwashing, Ganni holds itself accountable in its public annual responsibility report; its spring-summer 2023 clothing collection is 97% "responsible" (composed of at least 50% organic, recycled, or low-impact materials). The commitment resonates. Ganni is valued at \$700 million, with devoted customers who tag themselves "#Gannigirls."

—CAITLIN PETREYCIK

## REGROW AG

*Rethinking farming*

The U.S. agriculture industry is estimated to produce at least 10% of global greenhouse-gas emissions. "Agriculture and climate are in a bit of a vicious cycle," says Regrow CEO and co-founder **Anastasia Volkova**. "Climate is affecting agriculture negatively by introducing more volatility. And agriculture is affecting climate in a negative way with practices that are not very sustainable." Regrow is on a mission to reverse that trend and decarbonize the planet. Combining satellite imagery with soil samples, the company now works with food giants like General Mills, Kellogg's, and Cargill to measure the carbon impacts of their supplier farms and model new scenarios to incentivize growers to implement climate-positive practices.

—DON STEINBERG

## JD.COM

*Stepping up during lockdown*

When Shanghai, China's biggest financial hub, went into a strict COVID-19 lockdown in the spring of 2022, JD.com—one of the country's largest retailers by revenue, with some 600 million customers—mounted an extraordinary effort to keep delivering essential supplies. Drawing on its logistics prowess and supply chain, it built makeshift warehouses in the city and by June had delivered over 150,000 tons of vital items, including rice, medicine, infant formula, and diapers. The company also waived certain merchant fees to the tune of nearly \$30 million, and its telehealth clinic, JD Health, connected people to doctors in more than 15,000 hospitals. —G.G.



## SPACEX

*The next frontier*

Last year alone, Elon Musk's SpaceX launched 61 Falcon 9 flights—or one every six days—making it the world's workhorse rocket. It's just the start. On April 20, 2023, SpaceX launched the most powerful rocket ever built, when it lit the fuse on its brand-new Starship, a rocket NASA is counting on to land astronauts on the moon sometime before the end of the decade. It's a huge feat, even though Starship exploded just four minutes into the flight. The flight (and subsequent "rapid unscheduled disassembly," as SpaceX described it in a tweet) provides crucial information on how to succeed that will guide future testing. —JEFFREY KLUGER



## ALBEMARLE

*FUELING THE EV REVOLUTION*

If the electric-vehicle revolution is to happen in the U.S., Albemarle may be the company that fuels its success. Headquartered in Charlotte, N.C., Albemarle is one of the world's leading lithium providers, helping create the batteries that power electric cars. It operates the only currently active lithium mine in the U.S. with plans to reopen a second mine in North Carolina in the next few years, and its innovative techniques have improved the amount of lithium concentration it extracts by 25%. It is also experimenting with manipulating the element to improve its capabilities and to build batteries that are safer, longer-lasting, and twice as energy-dense as the batteries that exist today. "We can do this better, we can do it faster," says **Glen Merfeld**, Albemarle's chief technology officer.

—GUADALUPE GONZALEZ

## MERCADO LIBRE

*Financing e-commerce*

Argentine e-commerce giant Mercado Libre is giving Amazon a run for its money in Latin America. It had a record-breaking 2022, making more than \$10 billion in revenue and \$1 billion in operating profit, a 134% increase from the year prior. Its fintech offerings are its fastest-growing segment, letting users send payments, apply for loans, withdraw cash, and more; for 40% of merchants who receive loans, Mercado Libre says it is the first institution to offer them credit. "Latin America has huge gaps with other regions, particularly around financial inclusion," **Marcos Galperin**, co-founder and CEO, told TIME in an email. "We address those gaps not just by offering good products and services, but by making it easy for consumers to use our technology." —G.G.

## PIONEERS

**AMEELIO***Free connection*

Many in U.S. prisons have no choice but to pay shockingly high prices to call a loved one. Ameelio's first-of-its-kind, free video-call and messaging app is gaining momentum as an alternative: Iowa, Colorado, and Maine expanded or began using it in 2022, and others are in the tech nonprofit's pipeline for 2023. State prison systems are embracing change because they understand that greater connectivity helps lower recidivism rates, says CEO **Uzoma Orchingwa**. A 2020 study of Minnesota prisons found that receiving at least one video visit can reduce the likelihood of reconviction by 22%. As states debate making prison calls free and the FCC moves to regulate the industry, Ameelio's mission may have found its moment. —**JEREMY GANTZ**

**SCHNITZER STEEL***Better metal*

**From screws to skyscrapers, steel shapes our world. But the industry is also responsible for 8% of global CO<sub>2</sub> emissions. Scrap-metal recycler Schnitzer Steel Industries, which also makes finished products, is blazing a better path. In 2023, it was named the most sustainable company in the world by research firm Corporate Knights. "Was I surprised? No," says CEO **Tamara Lundgren**. Schnitzer's facilities are run by net-carbon-free electricity, and it has reduced greenhouse-gas emissions by 24% since 2019. Last year it introduced net-zero-carbon GRN Steel products—carbon offsets and renewable-energy credits address manufacturing emissions—proving that sustainable steel can be feasible and profitable. —**ALISON VAN HOUTEN****

**EQUIP***Team treatment*

Eating disorders surged in the U.S. amid the pandemic—hospital visits for teens for eating disorders doubled from 2019 to 2022. But for many, the also-rising price of treatment centers made good, structured care inaccessible. Equip, a fully online eating-disorder treatment platform, has stepped into that gap and is now the largest treatment provider in the country, having expanded to operate in all 50 states in 2022. Co-founder and CEO **Kristina Saffran** designed Equip around the evidence-based, community-oriented principles of family-based therapy that worked for her as a teen in treatment for anorexia: connecting each patient age 6 to 24 with a five-person team to coordinate care. —**HALEY WEISS**

**OCTOPUS ENERGY***Finding efficiency*

**Octopus aims to make the energy supply chain smarter—and cheaper. The renewable-energy provider offers opt-in services like the new Intelligent Octopus, which uses machine learning to automatically charge electric vehicles during off-peak times, balancing the grid and slashing EV owners' bills by two-thirds. Founded in 2016, Octopus developed a unique tech platform, Kraken, which already helps provide energy to nearly 50% of the U.K. and a third of Australia. It plans to invest \$1.21 billion in the Asia-Pacific energy market by 2027. "By demonstrating that the energy transition can be good for customers, we're helping align climate goals with political priorities," says CEO and founder **Greg Jackson**. —**A.V.H.****





## GOOGLE DEEPMIND

THINKING AHEAD

DeepMind has a long catalog of AI breakthroughs under its belt. The first to build an AI that could best a human master of the ancient Chinese board game Go, it was also the first to build an effective solution to the long-standing protein-folding problem in biology, which could help unlock solutions to diseases like malaria and cancer. But despite those breakthroughs, parent company Google was caught flat-footed when, in late 2022, Microsoft-backed OpenAI released the wildly popular chatbot ChatGPT. In reaction, Google merged DeepMind with its other AI team, Google Brain, to form Google DeepMind, led by DeepMind CEO **Demis Hassabis**, who dreams of building “artificial general intelligence,” or AI that can surpass human performance at most difficult tasks. “In 2010, we were like loners in the desert talking about this with a few other believers,” he told TIME in 2022. “Now it has become mainstream.” —BILLY PERRIGO



## EVIATION

Electric flight

In September, a small plane took off from a runway in central Washington State and returned eight minutes later. A short trip, but a big moment: the first flight of an all-electric passenger aircraft. Eviation’s plane, Alice, was the result of seven years of engineering and development. “In cars, you can change the vehicle structure so it supports the weight of the batteries,” CEO Gregory Davis says. “It’s a bit more challenging with an airplane.” Alice’s range is a bit under 300 miles, but it’s enough for the commuter carriers interested in zero emissions and saving money on fuel. Eviation has orders for more than 400 planes, worth over \$4 billion, with major customers like Air New Zealand and DHL.

—ALEJANDRO DE LA GARZA

## MEESHO

Innovative retailer

India, now the world’s most populous country, is expected to see e-commerce sales nearly double by 2025 to \$133 billion. Bangalore-based Meesho, the most-downloaded shopping app in the world in early 2022, caters to customers priced out by Amazon and Walmart. Unlike its competitors, Meesho doesn’t charge sellers a commission, which it says enables it to sell 60% of its products for less than \$4, in reach for Indian families that make less than \$6,000 a year. But the path to online-shopping domination won’t be smooth: while it expects to reach profitability this fiscal year, it’ll have to overcome challenges like rising competition from other companies. —TARA LAW



## HONEYBEE HEALTH

Delivering care

California-based online pharmacy Honeybee Health led the industry in supplying medication abortion in 2020. Jessica Nouhavandi, the co-founder, co-CEO, and lead pharmacist, unflinchingly rode the regulatory waves during the pandemic and when *Roe v. Wade* was overturned. Having been the first pharmacy officially cleared by the FDA to dispense abortion pills via mail, in 2023 it was also the first to satisfy new permanent requirements, continued to meet increasing demand, and kept its 36-hour turnaround time from prescription to delivery. Nouhavandi is clear: current legal challenges to medication abortion won’t slow her down. “There’s really not much that can shake us at this point,” she says. “We’re not going to change what we do.” —H.W.

## CHAINALYSIS

Crypto keepers

In April, the militant group Hamas said it would stop raising money via Bitcoin, citing intensified prosecution of donors. It was a win for Chainalysis, whose data analytics helped Israel seize dozens of accounts. Founded in 2014 to bring visibility to anonymous blockchain ledgers, Chainalysis has become the go-to sleuthing firm for tracking crypto crimes like those allegedly committed by Sam Bankman-Fried, the disgraced CEO of cryptocurrency exchange FTX, whose bankruptcy lawyers hired Chainalysis to investigate after the firm’s bankruptcy. “At some point, bad actors will realize that blockchain is a really bad way of laundering money,” says chief product officer Pratima Arora. —DON STEINBERG



## ZEROAVIA

*Cutting flight's footprint*

Long-haul flights are the greatest source, by far, of the aviation industry's carbon emissions. ZeroAvia's solution: a plane with a hydrogen-electric engine that primarily draws power from fuel cells, with a lithium-battery assist. In January, it made history by successfully completing a test flight of a 19-seat plane. By 2027, it aims to power 80-seat aircraft for up to 700 nautical miles—but its next goal is a certified engine ready for commercial flights by 2025. "This flight was the first in a series of flight tests that propel the company forward," says CEO and founder Val Miftakhov. He already has over 1,500 provisional orders, with interest from American Airlines, United Airlines, and IAG. —JARED LINDZON



## WORKJAM

*Frontline flexibility*

Frontline workers keep the world running but often don't get the same workplace support and autonomy as white collar employees. The app WorkJam, which doubled its user base in 2022, gives hourly earners at companies like Hilton and Target an all-in-one self-service tool to punch in, complete trainings, and swap shifts. The ability to more easily pick up and trade shifts can, for example, help a stressed single parent drop other part-time jobs. The app marries employee-oriented improvements with a bottom-line boost. For a retail organization with 1,000 locations, for example, WorkJam estimates it saves over \$30 million in expenses over three years. "It's a win-win," CEO Steven Kramer says. —ALISON VAN HOUTEN

## NATIONAL PAYMENTS CORPORATION OF INDIA

*CONNECTING COMMERCE*

India's central bank and an industry group launched the National Payments Corporation of India (NPCI) in 2008 to create more robust payment systems. As smartphone and internet use have grown in India, the NPCI launched United Payments Interface (UPI), which allows instant money transfers via mobile apps and QR codes, and has brought digital payments to nearly 300 million users, replacing debit and credit cards and enabling e-commerce growth in a country that has long clung to cash. The company has had huge growth: in 2021–22, it clocked a whopping 45 billion transactions and accounted for 52% of India's digital payments. NPCI is now expanding internationally, which managing director and CEO Dilip Asbe says will enable cross-border payments and remittances. "That is the future we see—a global connected financial world," he says. —VARSHA BANSAL

## OPENDORSE

*Cash for college athletes*

When Pringles goes looking for mustachioed basketball players to feature on its cans during March Madness, or Spanx wants to connect with female college athletes to promote shapewear, the companies turn to Opendorse, the online platform that helps forge name, image, and likeness (NIL) deals. Since the NCAA started allowing athletes to sign sponsorships in 2021, some 90,000 college athletes have made money using Opendorse, according to the company. Co-founder and CEO Blake Lawrence expects college athletes to earn more than \$100 million on the platform by the end of 2023. "Opendorse is growing faster than we ever expected," he says. "And NIL is just in its infancy." —SEAN GREGORY



## HAPPIEST BABY

### SLEEPING SOUNDLY

*In March, the FDA granted approval to Happiest Baby's Snoo bassinet, making it the first medical device ever approved to be marketed for infant sleep safety. Dr. Harvey Karp, a pediatrician and author of The Happiest Baby on the Block, created the Snoo in 2016 in order to reduce sudden infant death syndrome (SIDS), which kills thousands of infants a year. The "smart sleeper" bassinet keeps babies on their backs—the only sleeping position proven to reduce SIDS risk—and helps them sleep better with automated rocking and shushing. The Snoo costs almost \$1,700, but the company recently made it more accessible with rentals for about \$5 a day. The FDA approval also means it may soon be eligible for insurance coverage, the way breast pumps are. —CHARLOTTE ALTER*



## M-KOPA

*Financing for the future*

A customer needs a loan for a rooftop solar-power system. But she makes less than \$2 a day, has no credit history, and no collateral. For M-Kopa, that's no problem. The Kenya-based financing platform offers underbanked African customers pay-as-you-go access to anything from e-bikes to fuel-efficient stoves and smartphones. The terms: daily loan repayments of just a few cents, via mobile phone. M-Kopa now has a presence across the continent and just raised \$250 million in debt and equity—one of the largest fundraisings by an African tech startup. "If you treat low-income people as customers, not charity cases," says co-founder and CEO Jesse Moore, "you can change the world." —ARYN BAKER

## INTERFACE

*Climate-friendly flooring*

With backing made from carbon-rich biomaterials and tufting from recycled stuff, Interface's first-of-its-kind Flor area rugs are carbon-negative, subtracting more carbon from the environment than they add. By adjusting production methods, using renewable energy, and choosing eco-friendly suppliers, the Atlanta-based flooring company has made its full line of carpet and vinyl tiles carbon-neutral, a benefit that helps its corporate customers fulfill their own green promises. "Many companies have made commitments to carbon reduction, and a good portion of that comes in the built environment," says CEO **Laurel Hurd**. Last year, in an industry first, it became a fully carbon-neutral enterprise, including its supply chains. —DON STEINBERG



## SERES THERAPEUTICS

*Gut defense*

Supermarket shelves are full of largely unregulated probiotics that aim to keep gut bacteria in balance. With its new drug Vowst, Seres has created something different: the first oral prescription treatment for the microbiome. Approved by the FDA in April, Vowst is a capsule full of carefully selected bacterial spores that together can suppress growth of *C. difficile*, which can cause life-threatening infections, and are a common complication in hospitals. In studies, Vowst was 88% effective in preventing repeat infections after two months. "This is a game changer for this patient population," says Eric Shaff, president and CEO of Seres. It will be available starting in June. —ALICE PARK

## NOVO NORDISK

*Game-changing medicine*

Weight-loss drugs have become the hottest-selling drugs in the U.S. market, thanks in large part to Novo Nordisk's products: Ozempic and Rybelsus, approved to treat Type 2 diabetes, and Wegovy, approved to treat obesity. "It's the steepest uptake of any medicine we have launched," says CEO Lars Fruergaard Jorgensen. The medications are now in demand not just among patients who can medically benefit from them, but also among those eager for a quick fix to drop a few pounds, despite potential side effects. He says the company is educating physicians and the public about proper use of the drugs, and is exploring if their anti-inflammatory properties could complement other Alzheimer's disease therapies in the future. —ALICE PARK

## GRAPHIKA

*Combating misinformation*

Deepfakes and AI-driven disinformation campaigns are multiplying. When governments, NGOs, and tech companies want to understand these shape-shifting threats, they often call New York City-based Graphika, which tracks, maps, and analyzes such campaigns. "Online events have a real-world impact," founder and CEO John Kelly says. "We use advanced data science to understand the communities that make up the online landscape we all live in." Last year, Graphika helped combat Russian disinformation and Chinese influence operations, and exposed misinformation campaigns in the run-up to the 2022 midterms in partnership with Meta, Google, and Stanford University respectively. —J.L.

## BLIND

*Tech support*

As layoffs roiled the tech industry in late 2022, Blind—an online forum for verified but anonymous professionals—became the de facto channel for communication amid the tumult. At the time, more than 95% of Twitter employees were among Blind's 8 million users, whose numbers grew by 2 million last year alone. Those users, many of whom work in tech, discuss everything from visa issues and mental health to unethical practices, making it a vital platform for industry whistleblowers. Blind monetizes by summarizing user sentiment and suggesting changes to criticized companies. Anonymity is crucial, says COO Young Yuk, "because what's being said here is not being said elsewhere." —A.V.H.



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# Time Off



## BACK FOR ONE LAST ADVENTURE

BY STEPHANIE ZACHAREK

The final installment of the Indiana Jones franchise may be lackluster, but Harrison Ford imbues it with heart

INSIDE

WHAT TO WATCH AND READ  
ALL SUMMER LONG

**H**ARRISON FORD IS KNOWN TO FLUMMOX journalists by being less than forthcoming in interviews; in public appearances, he tends to radiate an “I don’t really want to be here” vibe. Which is why it meant something to see him take the stage just ahead of the Cannes premiere of *Indiana Jones and the Dial of Destiny* on May 18, with tiny glimmers of almost-tears in his eyes. Cannes head Thierry Frémaux had introduced Ford by showing a highlight reel of his long, prismatic career, from *American Graffiti* to *The Mosquito Coast* to *Blade Runner* and beyond. It must be strange to sit there in a tux and watch your various incarnations across decades flash past you on a screen—it’s probably true that when you’re a movie star, others are more attuned to the natural changes in your face than you are. No wonder Ford, now 80, seemed moved by the tribute. “You know, I love you too,” he said to the audience after the applause had waned. “You give my life purpose and meaning, and I’m grateful for that.”

Ford is, pretty much, the best thing about James Mangold’s *Indiana Jones and the Dial of Destiny*, the fifth film in the franchise. The first, Steven Spielberg’s 1981 *Raiders of the Lost Ark*, was inspired by adventure serials of the 1930s and ’40s—the idea had been conceived by George Lucas and Philip Kaufman, with Spielberg joining later. In 1981, looking back at movies from 50 years earlier felt like gazing through the wrong end of the telescope; that first movie’s lo-fi hi-fun touches—its fixation on ancient golden gewgaws, slithery snakes, and cartoon bad guys—seemed so mistily far away from what the movies had become by that time. Now, in 2023, when filmmakers have tons of new technology at their disposal, it’s easier than ever to make stuff look old-timey. (This new installment is set mostly in 1969, around the time of the lunar landing.)

By this point, any Indiana Jones picture is going to have almost too many layers of meta-nostalgia to sift through; it’s more likely to foster fond memories of your old, busted childhood VCR than it is to conjure *Buck Rogers* or *Zorro’s Fighting Legion*. That’s not a good thing or a bad thing; it’s merely a thing. But it does make you think about how readily your own cherished vision of the past can be used as a marketing tool, and how, increasingly and for some good reasons, we yearn to be returned to olden times that aren’t really even that old.

**YET DIAL OF DESTINY** creaks under the weight of the franchise’s stature. The movie’s opening flashback scenes give us a much younger Indiana Jones, in the form of a digitally de-aged Harrison Ford. He looks reasonably realistic—there’s nothing too terribly Hall of Presidents about him—but the effect is disconcerting even so, especially following the tribute reel the audience at the Cannes premiere had just seen, where the younger Ford had been brought to life before our eyes with no digital gimmickry. That’s part



▼ Mikkelsen basking in the glow of an ancient, priceless thingie



of the wonder of movies: you can always go back to look at the Bette Davis of the 1930s and 1940s, the Montgomery Clift of the 1950s, and see the beauty of youth played back for you, even long after a star is gone. The de-aging technique used in *Dial of Destiny* scanned reams of footage from every Lucasfilm movie in which Ford had ever appeared, as well as outtakes, to pick up various angles of his younger face in every possible permutation of lighting. Such an efficient tool! But efficiency isn’t the same as magic.

In the de-aged portion of *Dial of Destiny*, we catch up with Indiana as World War II winds down. Hitler has retreated to his



< Waller-Bridge and Ford, as friends turned enemies turned accomplices

> Ford as Indy, on the run, as always



time. Everybody wants it, most of all Voller. We watch in something that's supposed to approximate awe, but doesn't quite, as Indiana and Toby face off against Voller and various other Nazi thugs atop a train speeding through the European countryside. It's as thrilling as any clatteringly fake CGI-heavy scene can be.

It's also a harbinger of what's to come. There are so many chase sequences in *Dial of Destiny* that the movie seems held together with slender bits of plot, rather than the other way around. Worse yet, they're so heavily CGI-ed that they come off as grimly dutiful rather than delightful. After about a half hour of Nazi-era setup, we finally get to meet the Indiana Jones of the late 1960s, who looks as Harrison Ford actually does now—phew! Indy is winding down his tenure at Hunter College, where he's been a revered archaeology professor. But he's drawn out of retirement when Basil Shaw's grown daughter Helena (Phoebe Waller-Bridge), now a brainy archaeologist type herself, first charms him as a means of procuring the dial of whatever, and then runs off with it. Then the slippery Voller shows up: he wants it too, now more than ever. It's important to note, though, that the object in question is only half of the dial; you've got to have something to look for in an Indiana Jones movie.

**AS HELENA, WALLER-BRIDGE**, with her Tommy Tune-like legs and daffily expressive eyes, is one of the movie's better natural effects. But even she gets lost in the overly complex plot, which involves travel from New York to Tangiers to Athens to Sicily that should be exciting but isn't (aside from the old-style cartoon maps used to trace the adventurers' perambulations, which are adorable). And then there are the interminable chase scenes. In New York, on the run from somebody or other during an Apollo 11 parade, Indy rides a horse right into the 59th Street station and onto the tracks—directly in the path of a speeding subway train. We see how he gets out of this one, sort of. But the narrow escape doesn't make visual sense. It's a case of a filmmaker's signaling that something is truly, madly astonishing but failing to deliver the actual goods.

The movie's best scenes are the more modest ones that remind us what we loved about the earlier movies—the way, for example, a host of creepy-crawlies come clattering down the walls of a cave, inquisitive and menacing at once. But there's also a murky underwater sequence and, one of the movie's worst sins, a tragically underused Antonio Banderas as ace undersea diver Renaldo. The best thing about *Indiana Jones and the Dial of Destiny* is its ending, a reunion of characters that anybody who has any affection for the franchise is probably longing to see. And it's here that Ford—with his current-day face, marked by all the actual living that goes into a life—is at his best, showing the kind of gruff, reluctant tenderness that's become one of his trademarks. He's already got the best face neither money nor technology can buy. □

bunker; the end seems near. A bunch of Nazi heavies see what's coming and try to skate off with some looted art and artifacts, and the youngified anthropologist Indy needs to stop them. It's here that we meet the story's marvelously villainous villain, Mads Mikkelsen's Jürgen Voller, an adorably nerdy physicist in Clark Kent glasses. Too bad he's a Nazi.

In this early part of the film, we also meet Indiana's pal Basil Shaw (Toby Jones), an academic whose eyes gleam at the mere mention of the story's object of desire, the dial-thingie of the title, an important-looking doodly-doo—invented by Archimedes—that can locate fissures in

**'You give my life purpose and meaning, and I'm grateful for that.'**

**HARRISON FORD,**  
SPEAKING TO FANS  
AT THE CANNES FILM  
FESTIVAL IN MAY

# Summer Culture Preview

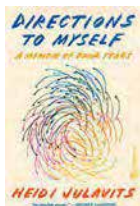
The most anticipated books, movies, and TV shows of the season

BY SHANNON CARLIN, MARIAH ESPADA, MEGAN McCLUSKEY, MOISES MENDEZ II, AND LAURA ZORNOSA



## Secret Invasion (JUNE 21)

Samuel L. Jackson's Nick Fury takes center stage in the latest small-screen installment of the Marvel Cinematic Universe's TV expansion. The thriller follows the spy as he takes on the Skrulls, a hidden enemy waging a war in the shadows. Olivia Colman, Ben Mendelsohn, and Emilia Clarke also star in the limited series based on the comics. (DISNEY+)



## Directions to Myself

BY HEIDI JULAVITS (JUNE 27)

Heidi Julavits' second memoir unfolds over four years, beginning with the summer when her then 6-year-old son approaches the "end times of childhood," which sends Julavits spiraling as she reflects on memories. Issues of politics and gender thread together with the daily ins and outs of family life.



## The Horror of Dolores Roach (JULY 7)

The eight-episode horror series, based on the podcast of the same name, stars *One Day at a Time*'s Justina Machado as an ex-convict turned masseuse trying to survive in an eat-or-be-eaten world. Set in New York City's Washington Heights, the show is inspired by *Sweeney Todd*. (PRIME VIDEO)



## Joy Ride (JULY 7)

Ashley Park, Sherry Cola, Stephanie Hsu, and Sabrina Wu star in this buddy comedy about four Asian American friends on a mission to help Audrey (Park) find her birth mother in China. Audrey's best friend Lolo (Cola) enlists her former roommate Kat (Hsu) and Lolo's cousin (Wu) to accompany them on the trip. Directed by *Crazy Rich Asians* writer Adele Lim, it's a fast-paced, raunchy summer comedy.



## Ripe BY SARAH ROSE ETTER

(JULY 11)

In the dark, delicious *Ripe*, 33-year-old Cassie toils away at a Silicon Valley tech startup accompanied by a black hole that hovers above her head. It's a tale of corporate greed in the modern world.



## Survival of the Thickest

(JULY 13)

Comedian Michelle Buteau plays Mavis Beaumont, a plus-size, 30-something woman who is working as a stylist and trying to reboot her life after a brutal breakup. The dramedy is inspired by Buteau's 2020 memoir of the same name. (NETFLIX)



## Mission: Impossible—Dead Reckoning (JULY 12)

For the seventh *Mission: Impossible* film, Tom Cruise's agent Ethan Hunt and his team are tasked with the mission of saving humanity from a dangerous weapon. Filled with Cruise's signature stunts and co-starring Rebecca Ferguson, Hayley Atwell, Vanessa Kirby, and Pom Klementieff, *Dead Reckoning Part One* is the first movie in the two-part finale for the franchise, with the second due in 2024.



## Full Circle (JULY 13)

In Steven Soderbergh's limited-series mystery, a botched kidnapping ends up exposing years of dangerous international secrets. The tense six-episode drama stars Claire Danes, Timothy Olyphant, Zazie Beetz, CCH Pounder, Jim Gaffigan, and Dennis Quaid. (MAX)



## Crook Manifesto

BY COLSON WHITEHEAD (JULY 18)

Colson Whitehead returns to New York City for a 1970s-set sequel to his best seller *Harlem Shuffle*, continuing the saga of furniture-store owner Ray Carney.



## Barbie (JULY 21)

Greta Gerwig's candy-colored comedy brings the Mattel dolls to glittering life. Margot Robbie stars as the top-billed of many Barbies and Ryan Gosling as the chiseled but dull Ken, as the pair navigates the real world after being expelled from Barbieland.



## Praise Petey (JULY 21)

Petey (*Schitt's Creek*'s Annie Murphy) is a New York City It girl who finds new meaning to her life when she attempts to modernize her dad's small-town cult in this animated comedy. (FREEFORM)



## Oppenheimer (JULY 21)

Christopher Nolan's historical epic stars Cillian Murphy as the physicist who led the Manhattan Project, the U.S. effort to create a nuclear bomb during World War II.





## Minx, Season 2 (JULY 21)

After being renewed only to be canceled by HBO Max later that year, the comedy about the first (fictional) feminist porn magazine got picked up by Starz for another season. The first season culminated in Joyce (Ophelia Lovibond) and porn publisher Doug (Jake Johnson) getting bombarded by lawsuits and angry protesters. In the new season, they will have to find a way to persevere in the face of forces seeking to burn it all down. (STARZ)



## Tom Lake BY ANN PATCHETT (AUG. 1)

In *Tom Lake*, Emily, Maisie, and Nell return to their family's orchard in Northern Michigan to harvest cherries in the spring of 2020. As they work, their mother Lara passes the time by telling them the tale of Tom Lake, a theater company where she spent a summer in her youth.



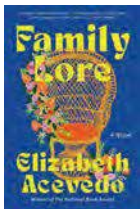
## Teenage Mutant Ninja Turtles: Mutant Mayhem (AUG. 2)

The pizza-loving turtles are emerging from the sewers for the first time in years, hoping to win over the hearts of New Yorkers. In the animated film based on the '80s franchise—produced and co-written by Seth Rogen—Donatello, Michelangelo, Leonardo, and Raphael set out on a mission with the help of their friend April O'Neil (*The Bear* star Ayo Edebiri).



## Family Lore BY ELIZABETH ACEVEDO (AUG. 1)

Acclaimed YA author Elizabeth Acevedo turns to adult fiction with *Family Lore*, in which Flor Marte is able to predict when someone will die. She's about to throw a living wake, but she won't tell anyone, even her sisters, who the wake is for. The novel paints a portrait of multiple generations of Marte women, many of whom have magical gifts, as they navigate family history and Dominican identity.



## Problemista (AUG. 4)

In Julio Torres' fun, surreal directorial debut, an aspiring toy designer from El Salvador (Torres) on an expiring work visa tries to bring his ideas to life. An opportunity to work as an assistant for an outcast of the art world (Tilda Swinton) proves to be his only option to stay stateside. Wu-Tang Clan's RZA also stars.



## The Heaven & Earth Grocery Store

BY JAMES MCBRIDE (AUG. 8)

In National Book Award winner James McBride's new novel, the discovery of a skeleton at the bottom of a well in the dilapidated Chicken Hill section of Pottstown, Pa., leads to the unearthing of decades-old secrets.



## Only Murders in the Building, Season 3

(AUG. 8)

Meryl Streep and Paul Rudd join the cast of the true-crime podcasting comedy led by Steve Martin, Martin Short, and Selena Gomez, which promises a new murder that will need solving by the show's amateur sleuths. Surely, these new cast members will send this investigation into a whole new direction. (HULU)



## Congratulations, the Best Is Over!

BY R. ERIC THOMAS (AUG. 8)

R. Eric Thomas' self-deprecating and deeply personal memoir-in-essays chronicles the author's return home to Baltimore shortly before the COVID-19 pandemic after more than 15 years away.



## Painkiller (AUG. 10)

Peter Berg tracks the origins of America's opioid crisis in a drama starring Uzo Aduba, Taylor Kitsch, and Matthew Broderick. The limited series is based on the 2018 book *Pain Killer: An Empire of Deceit and the Origin of America's Opioid Epidemic* and the *New Yorker* article "The Family That Built an Empire of Pain." (NETFLIX)



## Red, White, and Royal Blue (AUG. 11)

Tony-winning playwright Matthew López adapts Casey McQuiston's 2019 LGBTQ romance novel about a secret relationship between the First Son of the United States and the Prince of England.



## Heart of Stone (AUG. 11)

Netflix's spy action thriller follows Gal Gadot's MI6 agent Rachel Stone in a Bond-like role (minus the misogyny) as she attempts to protect a valuable—and dangerous—asset.



## Gran Turismo (AUG. 11)

This coming-of-age film is based on the Playstation racing-simulation video-game series of the same name and the true story of a gamer who became a professional race-car driver after winning an online competition.



## Let's Go Let's Go Let's Go BY CLEO QIAN (AUG. 15)

This short-story collection centers Asian and Asian American characters whose lives are upended by technology in ways that illustrate the peculiar horrors of modern life. In one, a woman immerses herself in virtual dating simulations to distract herself from feeling abandoned by her best friend.

## Keir Starmer The U.K. opposition leader on placing nation over party, embracing business, and Labour's plans to end 13 years of Tory rule

**You've spoken about how you never saw yourself becoming a Member of Parliament. What made you feel like you couldn't get into politics?** My working-class background. My dad worked in a factory, my mum was a nurse. Nobody in my extended family had gone to university. I was the first, and therefore there was something in the back of my mind that simply said, "People like you aren't MPs, Keir."

**How do you describe Starmerism?** Recognizing that our economy needs to be fixed. Recognizing that [solving] climate change isn't just an obligation; it's the single biggest opportunity that we've got for our country going forward. Recognizing that public services need to be reformed, that every child and every place should have the best opportunities, and that we need a safe environment, safe streets. You get a sense of what matters most to me.

**You lamented U.K. leaders' absence at the World Economic Forum in Davos this year. Are Britain's best days behind it?** I'm absolutely sure Britain's best days are ahead of it. When I was director of public prosecutions, I represented the U.K. in international bodies, and everybody looks to Britain as the pragmatic, reliable partner. Other countries wanted to hear what Britain had to say. To have gone from that to a position where the mood in Davos was that we drifted and that we're not around the table is something I do lament and I think every political party should lament. Going to Davos was a statement of intent to say, under a Labour government, Britain will be back.

**Whom do you most look up to internationally?** I don't have posters of people on my wall. But I'm

**What is the most important thing that readers should know about you?**

When I see a problem, I fix it. Some people think that passion is only manifested by shouting and screaming. For me, the passion and determination to change the country for the better runs very, very deep.



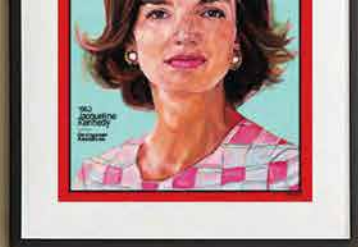
conscious that we've got a lot to learn internationally as a Labour Party, so we study intensely the U.S. and, particularly, the journey of Biden into office, because [the Democrats are] our sister party.

**Between Prime Minister Rishi Sunak and his predecessor Boris Johnson, who is the tougher opponent?** They're different. Different in their characteristics, different in the circumstance in which they are governing. Johnson was governing through the pandemic, so he had the benefit of incumbency through that until he then collapsed under the weight of his own character flaws. Sunak is a different person and is trying to portray the man that's here to clear up the mess that his party made, the problem being that he was alongside Johnson for most of the period in which the mess was made.

**How has the Labour Party changed under your leadership?** We are absolutely committed to patriotism. We are proudly pro-NATO. We are pro-business in the sense of wanting to partner with business, which is a really big and important change for the Labour Party. We have made progress on tackling antisemitism. We're in a materially different place than we were before.

**What would you say to critics who argue that you've taken Labour too far to the right or that your leadership pledges haven't been kept?** We've had to bring about fundamental change. We have to appeal to people who didn't vote for us last time. If we simply appeal to the same people who voted for us last time, or to our party members, we'll lose the next election—and that's the blunt truth of it. That's why I use this phrase over and over again: Country first, party second. —YASMEEN SERHAN

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**ARI SARKER**  
President,  
Asia Pacific,  
Mastercard

# Investing in Our Planet a Collaborative Approach

**When it comes to the future wellbeing of our planet, time is not on our side.**

Can the world achieve the United Nations Sustainable Development Goals (SDGs) by 2030 so that our planet will remain habitable well into the future? It is a daunting challenge considering the climate crisis. The timelines are short, especially for business leaders looking to balance growth and innovation with sustainable outcomes. The key is to see the path to 2030, and beyond, as a shared enterprise.

With individuals, companies and organizations all working together toward the same goal, reaching global sustainability targets by the end of the decade looks much more attainable.

This means harnessing the power of communities and citizens through collaboration and collective action to find more innovative ways of doing well by doing good, while empowering and enabling people.

## **Building sustainable communities**

As a company serving customers in more than 210 countries and territories, Mastercard can make a difference, impacting lives at massive scale by bringing hundreds of millions of people into the digital economy and formal financial systems. Narrowing the digital divide will ensure that growth is inclusive. We must lower barriers to entry, remove roadblocks and put prosperity within reach.

From providing digital upskilling to millions of informal workers and small businesses in Southeast Asia, to connecting over one million farmers and buyers via our Farm Pass platform in South India and enabling them to negotiate the best prices for their produce, our focus remains on how we can empower our network of communities.

## **Collaborating for a greener planet**

Collaboration, therefore, plays an increasingly important role in our sustainability strategy.

Our Priceless Planet Coalition unites consumers, financial institutions and merchants to fight climate change together with experts from Conservation International and the World Resources Institute. We are focusing on tree regeneration as a cost-effective and powerful way of capturing CO2 and mitigating climate change, especially given the enormous threat of deforestation. Committed to restoring 100 million trees globally, the coalition comprises 18 diverse restoration sites, including five within Asia-Pacific: Australia, Cambodia, China, India and the Philippines.



Big waves start with small ripples. Tapping the collective effort of over 20 partners in seven Asia-Pacific countries, and nearly 140 partners globally, the coalition is mobilizing governments, nongovernmental organizations and local communities to restore their own land.

## **Catalyzing change one citizen at a time**

We are also giving consumers the knowledge and tools they need to make their own positive impact on the planet.

The Mastercard Carbon Calculator, developed in collaboration with Swedish fintech firm Doconomy, offers consumers data about the environmental impact of their purchases. A person can track their carbon footprint month-by-month so they can better understand where they are having the greatest impact.

To help tackle global plastic-waste all payment cards issued on the Mastercard network will only be made with sustainable materials by 2028. It's a relatively small contribution, but a necessary one.

## **Creating an environment for collective action**

These and other initiatives are an indication of how we're making collective action a shared responsibility.

It is, of course, up to each of us to act on the opportunities before us. Bringing others along on the same journey, we can innovate in a way that makes sense for our businesses and the planet. It is our responsibility to champion environmental, social and governance (ESG) initiatives, and by working collectively with people and partners, we can drive more positive change than by acting alone, leaving a sustainable legacy for future generations.

