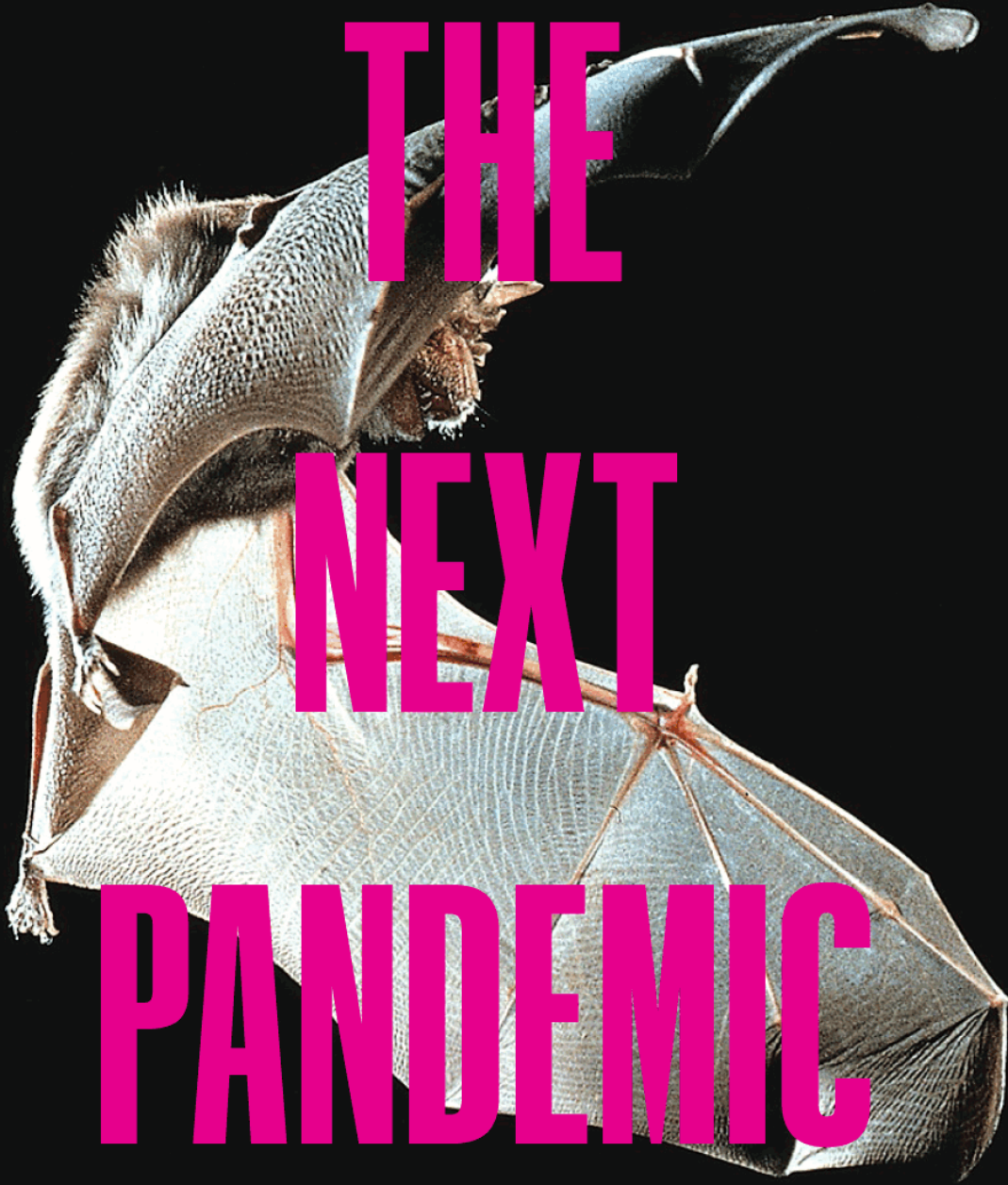


OCTOBER 31/NOVEMBER 1 2020

**FT Weekend Magazine**



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BY LESLIE HOOK

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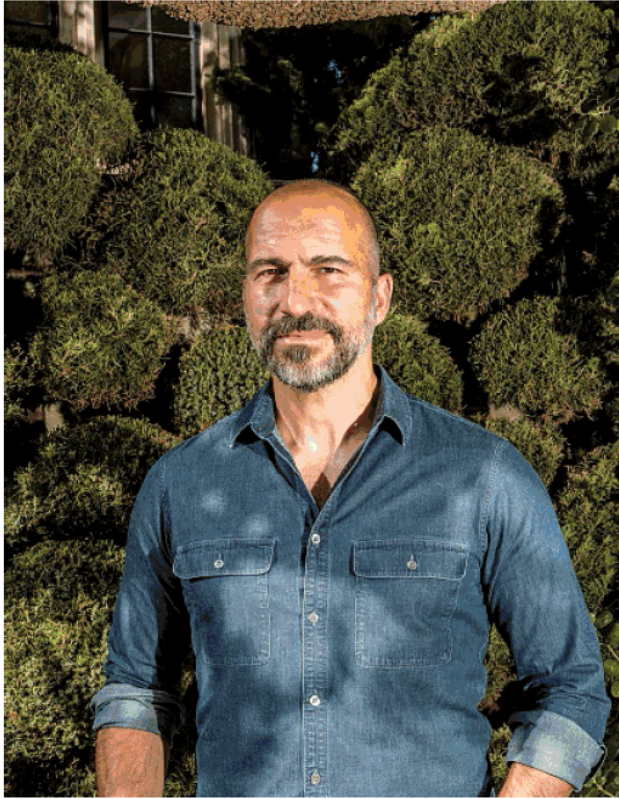
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**'I'd like to spend less time in court if I can help it'**

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**'There has never been only one way of making a photograph'**

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COVER: GETTY IMAGES. TOP LEFT: KELSEY MCCLELLAN. BOTTOM LEFT: ROGER FENTON, STILL LIFE WITH VASE, FLOWERS AND FRUIT, 1853-60. COURTESY OF THE VICTORIA AND ALBERT MUSEUM





# SIMON KUPER

OPENING SHOT

## What if Trump goes quietly?



**A**fter the Watergate saga ended with Richard Nixon's resignation in 1974, one couple is said to have divorced because they had nothing left to talk about. A similar void now looms for many of us.

We've hardly allowed ourselves to imagine what happens if the most likely scenario occurs: Donald Trump loses the US election, whines for a while, then leaves office. After Trump, could his supporters and opponents find not just new conversations but new identities? Could Trumpism survive? And would his departure pop the populist balloon worldwide?

Every modern US president lives in the heads of people around the world, but no previous incumbent occupied as much real estate as Trump has. In fact, no person in history has had such a real-time grip on the global consciousness. Trumpists often sneer that liberals suffer from Trump Derangement Syndrome, but how could one not? For four years, the man with the world's biggest megaphone has polluted our brains with lies, abuse and race-baiting, leaving everyone who hears him more stupid and paranoid.

"Trump's dysregulation - the fact that he is in a high-intensity state all the time - has been passed on to us," says Tony Schwartz, who ghost-wrote *The Art of the Deal* for him. Barack Obama promises that if Trump goes, "It just won't be so exhausting. You might be able to have a Thanksgiving dinner without having an argument."

There's a natural tendency to want to replace an over-exciting leader with a boring one. Ronald Reagan gave way to George HW Bush, Margaret Thatcher to John Major, Nixon to Gerald Ford. There's an appetite now for a tedious president who at the very least won't turn himself into a biological weapon aimed at his own country. The Democratic senator Michael Bennet captured the sentiment during his doomed run for the White House: "If you elect me president, I promise you won't have to think about me for two weeks at a time."

Joe Biden looks like the new Gerald Ford: a decent man who inherits a national crisis that defeats him. It has become structurally almost impossible to get progressive laws through the Senate (which the Democrats will struggle ever to hold beyond a two-year stretch) and the Supreme Court. If Biden packed the court with his own justices, the institution would instantly lose legitimacy with nearly half of Americans.

After Trump, the Democrats will lose their turnout machine and liberal newspapers their best story. A news recession threatens. The New York Times couldn't keep its millions of new subscribers with front pages about endless congressional wrangling to pass fragments of a Green New Deal.

And Americans would refocus from politics on to private life, as in John Updike's 1992 novel,

*Memories of the Ford Administration*, whose historian narrator barely mentions Ford and instead lovingly relives his own adulteries. He wonders: "Was there ever a Ford Administration? Evidence for its existence seems to be scanty."

Trump will surely avoid jail. Rich Americans and/or former presidents generally do. He has debts of at least \$1.1bn, but then his previous six business bankruptcies didn't exactly slow him down. American life abounds with ways to convert fame into money. In defeat, he could execute his original plan for 2016 and launch

### 'There's an appetite for a tedious president who won't turn himself into a biological weapon aimed at his own country'

Trump TV. (Replacing the terminally ill Rush Limbaugh on rightwing talk radio would waste his televisual talents.)

Trump can make a fortune as long as he abandons his fantasy of being a businessman and owns his true genius as a lowbrow entertainer. He could thrive for a while yet. Former US presidents are highly motivated people with unbeatable healthcare. The last three who died were in their nineties, while Jimmy Carter is steaming ahead aged 96.

Trumpism would survive Trump, but probably couldn't win another election. First, it would be a personality cult without the personality. Second, white nationalism is already crashing into the changing demographics of America. The Republican party is in a bind: it will have an outdated cultural offering and an unpopular economic offering of tax cuts for the rich and deregulation for fading fossil-fuels industries. Trump's main political legacy could be the far-right militias he has encouraged. It only takes a few armed groups to make a country ungovernable.

Outside the US, the future for nativists is brighter. They will study Trump's high-entertainment, anti-elitist, dog-whistling campaign of 2016 as a model for how to get elected, and his subsequent four years as a case study of how not to consolidate in office. While Trump was watching daytime TV, tweeting and playing golf, a professional autocrat like Viktor Orbán captured the media, the courts, state bureaucracy and big business. Trump merely appointed some judges. Admittedly, eating the state is harder in the US than Hungary, but he barely tried. Nor did he hit the lowest bar of competent governing. For comparison: as a proportion of each country's population, American deaths from Covid-19 have been more than four times Hungary's. Simplistic nativism plus basic competence and state capture will remain an awesome political recipe. **FT**

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# ‘Where I grew up there was no school. I grew up like a wild boy, a wild boar’



INVENTORY AI WEIWEI, ARTIST

**Ai Weiwei, 63, is a dissident Chinese artist and an influential activist. His work is openly critical of the Chinese government; in 2011, he was arrested in Beijing and detained for 81 days. He now lives in Cambridge, England.**

**What was your childhood or earliest ambition?**

I don't think we understand our childhood until very late. If there was any treasure in my childhood, it was poverty and discrimination. Those were very valuable for me. Because you know the depths of real darkness and deep human conditions, so you start to appreciate the value of today.

**Private school or state school? University or straight into work?**

No school. Where I grew up, during the Cultural Revolution, there was no school. So I grew up like a wild boy. Like a wild boar. Your

nose leading your path. Now I think that's very important to me. I treasure that time.

**Who was or still is your mentor?** There's no such person. A mentor is someone who gives a moment of enlightenment. Since I never really had a good education, I cannot even afford to name one.

**How physically fit are you?**

I'm 63, I can sleep six hours a night and I still have an appetite for good food. I never really ran; I can walk well. It functions.

**Ambition or talent: which matters more to success?**

This is a tricky question because, really, what is success? I would say success is when a person finds himself or herself. That doesn't need ambition or talent. It just needs a functioning mind, emotion and simple judgment.

**How politically committed are you?**

Totally. I am a product of political conditions.

**What would you like to own that you don't currently possess?**

The minutes. I'd like to own a joyful minute. Sometimes I have it, sometimes I don't.

**What's your biggest extravagance?**

The only way I can accept the idea of having money is to spend it meaninglessly.

**In what place are you happiest?**

Every place is equal for me. Even in detention I could still find joyful moments. You find those soldiers, 19, 20 years old, standing next to you, who have a curiosity about who you are. Reflecting on who you are [gives you a way] to connect to their emotions. As long as you find the humanity - it could be in detention, in refugee camps, in extremely difficult conditions - that reflects a higher stage of our heart and mind. That you can call joy.

**What ambitions do you still have?**

To see my son grow up to become a man. But I don't know how long I can. He's only 11.

**What drives you on?**

An unknown force. I still don't know. Why are our hearts still pumping? We often forget it. Night after night, you wake up again, and it's still pumping. Is that enough to be grateful for, or are we asking too much? We don't know what we have. We're asking for things that can never really compare to that muscle still working there.

**What is the greatest achievement of your life so far?**

Nothing. My biggest achievement is nothing. I've achieved nothing. If you can write on my tombstone "This man achieved nothing", I would be totally satisfied.

**What do you find most irritating in other people?**

Not much. I can just close my eyes and I'm at peace.

**If your 20-year-old self could see you now, what would he think?**

I would think: "That boring old guy's still there."

**Which object that you've lost do you wish you still had?**

I didn't lose much. Some things I appreciated from the early times are still with me. So I don't think I've lost that much, only because I never had much there. You know, what people normally call home, I don't have. I don't have much connection to my parents. I almost accidentally had my son and, of course, that brings me tremendous pleasure. I've had people, good relations, love. That's like the wind in spring, it helps you. It gives you pleasure.

**What is the greatest challenge of our time?**

We never even passed the smallest challenge. The basic challenge of any time is for the individual to really recognise themselves, and their own relations towards others, and how to live through. And every generation has to answer that, because we are born again and again. That knowledge cannot really help the next generation. They have to go through it again.

**Do you believe in an afterlife?**

I should say I don't. Because I have simply no information or knowledge about it. I think death is beautiful, only because it creates a sudden sadness, and that is so important for our happiness. If there is no such darkness, we cannot see light.

**If you had to rate your satisfaction with your life so far, out of 10, what would you score?**

Nine plus one.

.....

*Interview by Lilah Raptopoulos. Ai Weiwei was recently interviewed on the FT Life & Arts podcast, Culture Call*

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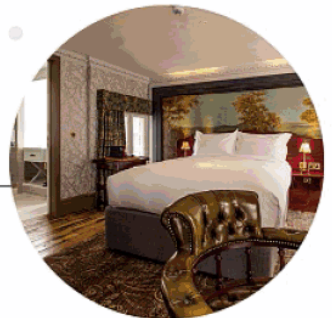
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## ROBERT SHRIMSLEY THE NATIONAL CONVERSATION

### A Highway Code fit for a Barbarian Plus world

Like most drivers, I have not glanced at the Highway Code since the day I passed my driving test. This, I recognise, is suboptimal. For one thing, there were no mobile phones when I took my test, so I only have it on trust that one should not use them while driving. For all I know, you are allowed to use them, just not in a built-up area during the hours of darkness.

But with an updated version of the code due, this feels the right time to offer a few constructive suggestions on how it might reflect the modern road-user's experience.

The most interesting guidance for the new code is that it establishes a "hierarchy of road users". Those who do "the greatest harm" have "the greatest responsibility to reduce the threat they pose to others". This seems very hard on pedestrians busily engrossed in their phones. But, then again, safety is paramount.

There are a few obvious changes coming. First, it will be illegal to drive along narrow or suburban roads in a normal car. The new code will state clearly that such roads are off limits to anything smaller than a five-door SUV or a 4x4. A car is no longer considered roadworthy in suburbia if it cannot accommodate a family of five, six suitcases, two St Bernards and a reunion of the Electric Light Orchestra.

This already seems to be the rule in London, where the roads are clogged up with ever-larger SUVs. Walking the dog down one of the small suburban streets near our house, I found one that looked like something defence companies sell to dictatorships for crowd control. It did not, admittedly, have a water cannon mounted on the back (very handy for the Costco car park) but the deluxe model comes with Colonel Tim Collins delivering an eve-of-battle speech



ILLUSTRATION BY LUCAS VARELA

as you speed through the mean streets of Twickenham.

This, apparently, was the Mitsubishi L200 Barbarian Plus pick-up truck (for those days when an ordinary Barbarian just won't do). There are, I have to say, relatively few occasions when the treacherous terrain of south-west London calls for a Barbarian Plus. No doubt it is just the ticket in the Atacama Desert, but in Putney, a Lexus will get you through most emergencies. But rules are rules.

Of course, the code covers all road users. Hence the passage reminding cyclists to abandon their ebikes across the whole pavement and the warnings to users of electric scooters that while their vehicles are not banned, they are currently not allowed on either roads or pavements. If you are intending to use one regardless, the code makes it clear you must buzz pedestrians on the left side only.

Chapter six will set out regulations for cycle lanes, which must now be the width of at least two Barbarian Pluses – or three if they are hardly used. Now, I am pro-cycle lane, not least because I use them a fair amount. They are an unalloyed good. But as the code will make clear, they simply aren't fulfilling their purpose if there

isn't a single file of stationary cars idling next to them. The code will spell out that these extra-wide cycle lanes are compulsory in major trunk roads and in hard-pressed high streets, where retailers will now benefit from the added tranquillity that comes with reduced footfall. It will also clarify that cyclists will be allowed to ride two abreast, both for safety reasons and if one is texting their mates.

All road users are reminded of the importance of good manners. It is simply not acceptable to beep your horn at a supermarket delivery driver just because he stopped in the middle of the road, rather than take a parking space 20 yards away. Play nice: those sugar snaps are not going to carry themselves.

Of course, the future may lie in automation, but here too the new code is ahead of the game. Driverless cars will obviously have the entire code pre-programmed into their software, but they will now be required to click the photographs of traffic lights before starting, to prove that they aren't a robot. **FT**

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Re "How coronavirus exposed Europe's weaknesses" (October 24/25). Other than a few notable exceptions, the western democracies' response to Covid-19 has been lamentable, both in terms of their handling of the crisis and their preparedness for a pandemic. Hopefully, they can partially redeem themselves by learning the hard lessons and holding their leaders to account for their actions. **NostraDamus919 via FT.com**

@andrewconnell October 20  
A fantastic long read via @FT on the early lessons of Covid-19 across Europe – from when to lock down to finding European solidarity in the midst of national crisis

Re "Inside the Democrats' battle to take back Texas" (October 24/25). An observation from Fort Worth, an upper-class neighbourhood in a Republican stronghold: there are quite a few Democratic party signs in front of very expensive homes. I have never seen this in 40 years. **ndmike via FT.com**

Simon Kuper makes some good points ("Why the urban poor will be forced to leave big cities", October 24/25) but what's missing is the effect of vastly different government policies on cities. In places such as London and NYC, the arts and service industries are at the mercy of the market. Whereas in European capitals, generous government subsidies for theatre, film and small businesses, extended furloughs and rent relief will make such an exodus less likely. The fate of cities depends on the ideology, cultural values and politics of their countries. **Ibis via FT.com**

Re Tim Harford's column on the power of negative thinking (October 24/25), my late grandfather used to tell me that "sometimes a pessimist is just an optimist with more information". That observation has stood the test of time. **Eclecticviews via FT.com**

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QUIZ answers The link was losing candidates 1. Kerry Pickler 2. Duke 3. Douglas Canwell 4. Ford Prefect 5. Romney Marsh 6. McCain 7. Clinton Cards (now Clintons) 8. The Dewey Decimal System – of library classification 9. Humphrey, Lylteton because of the game he chaired in /m Sorry /Hawert a Clu@10. Gore Vidal **Picture quiz** Donald Dewar - Judd Trump - Donald Trump

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# TECH WORLD



BY LEO LEWIS IN TOKYO

## Why Sony's PlayStation change is making Japan cross

Shifting through the clutter just on our Tokyo apartment's dining table, the *maru* circle symbol - mostly accompanied somewhere nearby with its opposite, the *batsu* cross - makes 34 separate appearances.

Wherever you look, they are there: Shibuya ward's new recycling guidelines; the assembly instructions for a standard lamp; teachers' marks on the children's homework. If the search were extended across the whole house, the *maru-batsu* appearances would certainly number in the thousands.

This ubiquitous pair, after all, are celebrities in the theatre of Japanese communication - whether written, emblazoned in lights, formed by a person's arms or waved on garish paddles in a game show. The circle, by long tradition, means yes, OK, good or correct. The naysaying cross tells you something is wrong, bad, against the rules or not in your interests.

So when Sony produced its first PlayStation games console in 1994 and needed symbols to differentiate the two most important buttons on its revolutionary new controller, this was the duo it chose. Immediately, the rift opened: that moment when globally ambitious technologists were forced to raise their heads from the blueprints and decide how to work with the regional variations of human behaviour. The circle and cross may have explicit connotations in the land where the PlayStation was dreamt up, but can mean something else in countries where, for example, people vote in



ILLUSTRATION BY MITCH BLUNT

elections by putting a cross against their preferred candidate's name.

In Sony's case, and despite the added hassle, the answer was to localise. For PlayStation owners in Japan, the circle button would agree with things or cause some positive action in a game, while the cross would cancel, reverse or stop. In Sony's biggest overseas markets, that function was switched and the cross was the default symbol of action, positivity and advance.

For a quarter-century and three subsequent generations of PlayStation consoles, these two systems muddled uncomfortably along, with the button-based canyon between Japan and the rest of the world widening. Menu navigation habits bedded in over decades with the players; the games industry diversified and cross-pollinated; and the global PlayStation user base soared beyond 100 million. Some games offered

**'Sony's decision suggests a definitive jettisoning of the idea that Japan, as its home market, should be accorded any particular favour'**

players reconfiguration options, but often the controls of Japanese games felt unnatural or counter-intuitive to western gamers, and vice versa.

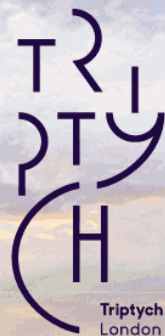
But now, a couple of weeks ahead of the launch of the PlayStation 5, Sony has made a remarkable decision: the function of the circle and cross buttons on the DualSense controller will, for the first time, be globally standardised on the new system. In a move that has stirred a stew of bemusement, resignation and horror among Sony's domestic fanbase, the non-Japanese configuration has prevailed.

The online reactions, whether accusing Sony of "betraying" its Japanese roots, of discrimination, of treachery, of cravenly bending to foreign pressure or of abandoning its domestic fans, arrive from a predictable angle. Some concede that Sony is merely - and belatedly - accepting the inevitable, while others rage that "inventors' rights" mean that the Japanese company should have had the gumption to impose the Japanese configuration on the rest of the world. Corporate Japan, they note, does not automatically feel under pressure to conform to globalised standards, especially where doing so would trample on a tradition: falling stocks continue to appear on the Tokyo Stock Exchange's trading screens in green and turn red when they rise, no matter what happens elsewhere.

It may feel like a lot of fuss over a couple of buttons, but Sony's decision is profoundly significant. Corporate Japan talks a good game on globalisation, but decisions like these are often where it quietly balks. Sony's move suggests a definitive jettisoning of the idea that Japan, as its home market, should be accorded any particular favour when that market is inexorably shrinking and the company's greater interest is to be global.

No matter how fervently Sony's Japanese staff and customers feel the PlayStation is a device of Japan, it has become, over 25 years, a global console. The timing of the X-O switch is critical. With the launch of the PlayStation 5, Sony will go head-to-head with Microsoft's new console in a contest on which Sony's fortunes heavily depend. More than ever, the fight will be global and a message of non-parochialism must be transmitted to Sony's staff in Japan. It needs them to vote for globalisation with an X, even if, in their heads, they are still voting O. **FT**

Leo Lewis is the FT's Tokyo correspondent



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s bionic duckweed a dire threat to our health and prosperity? It just might be. But lest you fear that it is a fresh torment to test us alongside Covid-19, wildfires and murder hornets, I should reassure you that it is not a Triffid-like killer plant.

Bionic duckweed is, instead, a metaphor for a glorious future technology, which might sound good – but isn’t because it keeps us from acting. The term was coined by a journalist and railway expert named Roger Ford. In evidence to a UK parliamentary committee in 2008, he lamented that electrified railways had been delayed because of the suggestion that “we might have fuel-cell-power trains using hydrogen developed from bionic duckweed in 15 years’ time” and so it would be a waste to have electrified the lines now. No investment today; there will be bionic duckweed tomorrow.

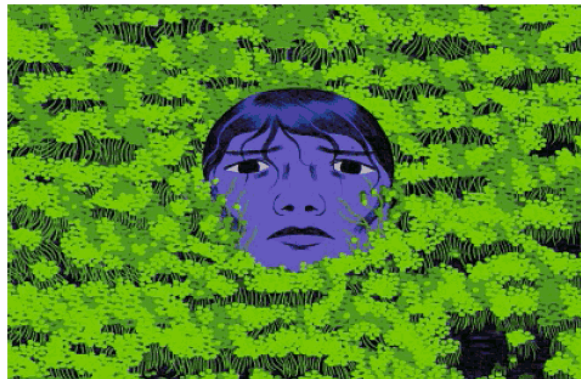
This fascinating and infuriating idea was brought to my attention in a brief essay written by Stian Westlake, co-author of *Capitalism without Capital*. The concept that our focus on the future might actually make us short-sighted is such a fertile one that I have been tempted to produce a taxonomy of bionic duckweed.

One: evil duckweed. For Westlake, bionic duckweed is a “knowingly malign” prediction designed to distort decisions today. Jack Stilgou’s book *Who’s Driving Innovation?* provides an example: efforts by small-government types to stymie investment in light-rail schemes by claiming that completely autonomous cars – sometimes called “Level 5” – are just around the corner. Experts believe they are decades away.

“I can show you places around this world I have been to where Level 5 autonomous vehicles are in operation today,” said one Nashville politician in 2017, in a successful effort to persuade voters to reject a mass transit system. Perhaps this was deliberate exaggeration. Perhaps he was making an innocent mistake. Perhaps he had visited these places in a time machine.

Two: duckweed ex machina. Closely related to evil duckweed, duckweed ex machina solves unpleasantly knotty political problems by waving rather vaguely at a technological fix.

Boris Johnson loves this stuff. First, it was going to solve the problem of the Irish border. Johnson wrote last year: “If they could use hand-knitted computer



## TIM HARFORD

### THE UNDERCOVER ECONOMIST



## A brief guide to bionic duckweed

“The fascinating and infuriating concept that our focus on future technology might make us short-sighted is a fertile one”

code to make a frictionless re-entry to Earth’s atmosphere in 1969, we can solve the problem of frictionless trade at the Northern Irish border.” He did not explain how, exactly, the problem would be solved – and thus far it has not been. Also: I don’t think “frictionless” means what he thinks it means.

Then there are the “game-changer” technologies to fight the coronavirus. Remember when the UK government ordered 3.5 million “game-changer” home antibody tests? That was in March. If the game has been changed, I have not noticed.

Or consider the algorithm that was supposed to assign fair grades for exams that had been cancelled, with life-shaping university places at stake. The algoshambles was pure duckweed ex machina: the government faced a painful decision, and technology promised instant relief. See also: “moonshot”.

Three: Schrodinger’s duckweed – the technology that might or might not be round the corner. Consider a vaccine against coronavirus. It seems likely that a proven vaccine will be produced, but it remains unclear how effective it will be and when it will be widely available.

That uncertainty creates problems all by itself. Imagine that we were all, miraculously, given an effective vaccine tomorrow. We could get back to the theatre, back to the office, back to normal.

Now, in contrast, imagine that we were told that the virus would be with us forever, lurking in the background like the flu, and we would never find a cure. I suspect that we might well shrug and get back to normal too, in the grim knowledge that some of us would not long survive.

It is the uncertainty that keeps us away from crowds, sometimes by law but mostly on a voluntary basis. Who wants to risk catching Covid-19 at Christmas when a vaccine might be with us in January?

The classic work on this problem is by the economists Avinash Dixit and Robert Pindyck. They showed that in the face of uncertainty, when it is expensive to reverse an action, procrastination becomes very attractive.

The Trump administration seems to thrive on maximising uncertainty. So does the UK’s post-referendum policy on Brexit, which has repeatedly postponed, denied or reversed painful choices. This sort of uncertainty can be enormously damaging, as people wait for clarity before deciding what to do. That is true for self-inflicted wounds but also true when the uncertainty concerns good news such as a vaccine: Schrodinger’s duckweed is duckweed nonetheless, and it clogs the gears of our decisions.

The fourth and final category: inevitable duckweed. Sometimes there is no malevolence, no wishful thinking and no uncertainty. Sometimes the new technology is imminent. Even then, inevitable duckweed can delay investment. Solar power is cheap. But it will be even cheaper next year, so we hesitate to install it.

My own computer – ostensibly a high-end Dell laptop – has broken down several times in the first two years of use. I am tempted to buy something new and start again. And yet I keep patching it up and plodding on. Why? Duckweed. The longer I can keep it going, the better and cheaper the replacement will be.

Not all bionic duckweed is evil. But even the good stuff slows us down. **31**

Tim Harford’s new book is “How to Make the World Add Up”

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**HOW  
TO PREDICT  
THE NEXT  
PANDEMIC**



## AND STOP IT

Scientists estimate there are 700,000 viruses with the potential to infect humans – of which fewer than 250 have so far been identified. Most, like the virus that caused Covid-19, spill over from animals, and more are emerging all the time. As climate change spreads these risks to new areas, virus-hunting scientists are working in disease hotspots to keep the next epidemic at bay.

LESLIE HOOK REPORTS



**Y**anthe Nobel walks through the rainforest, looking for a corpse. Reports of a dead elephant, lying in a stream, have reached camp and her job is to figure out what killed it. It's not the poachers she is worried about - they are increasingly rare here in the Dzanga-Sangha Special Reserve in the Central African Republic. It is the pathogens.

When she and her colleagues find the dead elephant, it turns out to be a baby, less than a year old. Nobel dresses in full protective gear - gown, face shield, gloves - and starts taking samples. "Anthrax is very common around here," she says, referring to the deadly bacteria that lives in soil as one possible culprit. "It could also be that its mother was poached," she tells me over Skype, back in camp.

Nobel, a vet and PhD student in epidemiology, has come to Dzanga-Sangha to study viruses, mainly in bats and rodents. Elephants are not usually part of the job - but when a dead animal is found in the forest, she always performs a necropsy. If the cause of death isn't obvious, and none of the usual pathogens shows up in the field lab, the samples are sent on to a bigger lab in Germany. "You always look for something new," she says. In the bigger lab, the samples are tested for unknown viruses - pathogens that have not been seen before.

Hunting for new viruses has become more difficult during an actual pandemic, but it has never been more important. This year, Covid-19 has brought some of the most powerful countries in the world to their knees. Like most other novel human viruses, Sars-Cov-2, which causes Covid-19, is zoonotic: it crossed from animals into humans. In this case, probably from a bat to a person, or through an intermediary animal.

"As a veterinarian, I am already trained to see the danger of spillovers from animals to people," says Nobel, who studies at the Robert Koch Institute's Leendertz Lab, which specialises in the ecology of zoonotic disease. Covid-19 has put this in the spotlight, she adds. "People are waking up to a story that was already there."

For years, epidemiologists and the World Health Organization planned for the advent of an unknown illness - often referred to as "Disease X". It would be highly contagious, not previously identified and cause a major international epidemic. In other words: a lot like Covid-19. But even though everyone knew something like this might come along, no one found it until the virus had already infected dozens of people in Wuhan, China.

Zoonotic viruses are responsible for a long list of illnesses: HIV, Ebola, Lyme disease, Sars, Zika and swine flu, to name just a few. And more are emerging all the time - each year, between two and five new zoonotic viruses are discovered. This year alone has seen several zoonotic outbreaks in addition to Covid-19. There was an Ebola surge in the Democratic Republic of Congo - where the disease has claimed thousands of lives - and a spike in Lassa fever cases in Nigeria. Over the past three decades, outbreaks of zoonotic disease have increased.

The diseases don't emerge from just anywhere. Often they come from rainforest edges and places of great diversity, where humans and animal species are mingling. These "hotspots", where diseases are more likely to spill over from animals to humans,

are closely linked to environmental change such as deforestation.

"Tropical rainforests are exceptionally important in this regard," says Tom Gillespie, who leads a lab studying pathogens and environmental change at Emory University. "Here you have a diversity of bats, rodents, primates - the species where we are most likely to contract something - [so] you are going to have a diversity of pathogens as well."

The actual work of hunting for viruses is tough. Nobel has just returned to base after two weeks of catching bats at a bush camp, and shows me the deep scratches around her ankles from walking through the forest. Sleeping in tents, showering under a waterfall and staying clear of the elephant herds can make for exhausting days.

This year, Covid-19 has made things even harder for her and other researchers. Though there have not yet been any cases in this corner of the Central African Republic, the local lab is equipped to run PCR tests for the virus, and researchers are taking extra precautions, including wearing masks around the great apes, who could be at risk of catching Covid-19 from humans.

This is one of the most remote forests of Africa, but the research is central to understanding our changing relationship to nature and disease. Climate change adds complexity to this task, as insects shift their ranges and plants bear fruit at different times, creating more potential for new species to mix. But if we knew more about viruses - how they act and which animals they infect - could it equip us a little bit better the next time a "Disease X" comes around?

**Viruses have been on the planet for millions of years, much longer than Homo sapiens.** Not quite technically "alive", a virus is a strand of genetic code enclosed in a protein sheath, and needs a living host to reproduce. We know about only a tiny fraction of the viruses in the world, although the work of finding them has sped up recently with the advent of genetic sequencing. There are about 1.6 million viruses on the planet in mammals and birds, of which about 700,000 could have the potential to infect humans. But of these, fewer than 250 have been identified in humans. The rest are still out there - they just haven't made the leap.

One of the world's most prominent virus-hunters is Peter Piot, who co-discovered the Ebola virus in 1976. He explains that viruses are so nimble because they are always looking for their next host.

"What is the *raison d'être* of a virus? It is to find a host to survive," he tells me. "Because viruses cannot multiply without a living cell... viruses need susceptible plants, animals, humans, so they have to find them and then jump from one to another."

Viruses typically lurk in a reservoir host - a plant or animal that can harbour them without getting sick - and then become more problematic when they cross into a new species.

Speaking over the phone on a recent autumn morning, Piot, head of the London School of Hygiene & Tropical Medicine, is in a pensive mood. He is concerned that coronavirus will not be our last deadly epidemic.

"We are living in the age of pandemics," he says, sounding a bit short of breath, a reflection of his own encounter with Covid-19 earlier this year. "I think we are going to see more and more of them, and the fundamental reason is that we failed to live in harmony with nature." ▶



Clockwise from above: elephants in the Dzanga-Sangha reserve in the Central African Republic; tools for a necropsy; researchers in full protective clothing make their way to the necropsy site; researcher Yanthe Nobel

Previous page: a horseshoe bat; bats harbour many viruses that can harm human beings





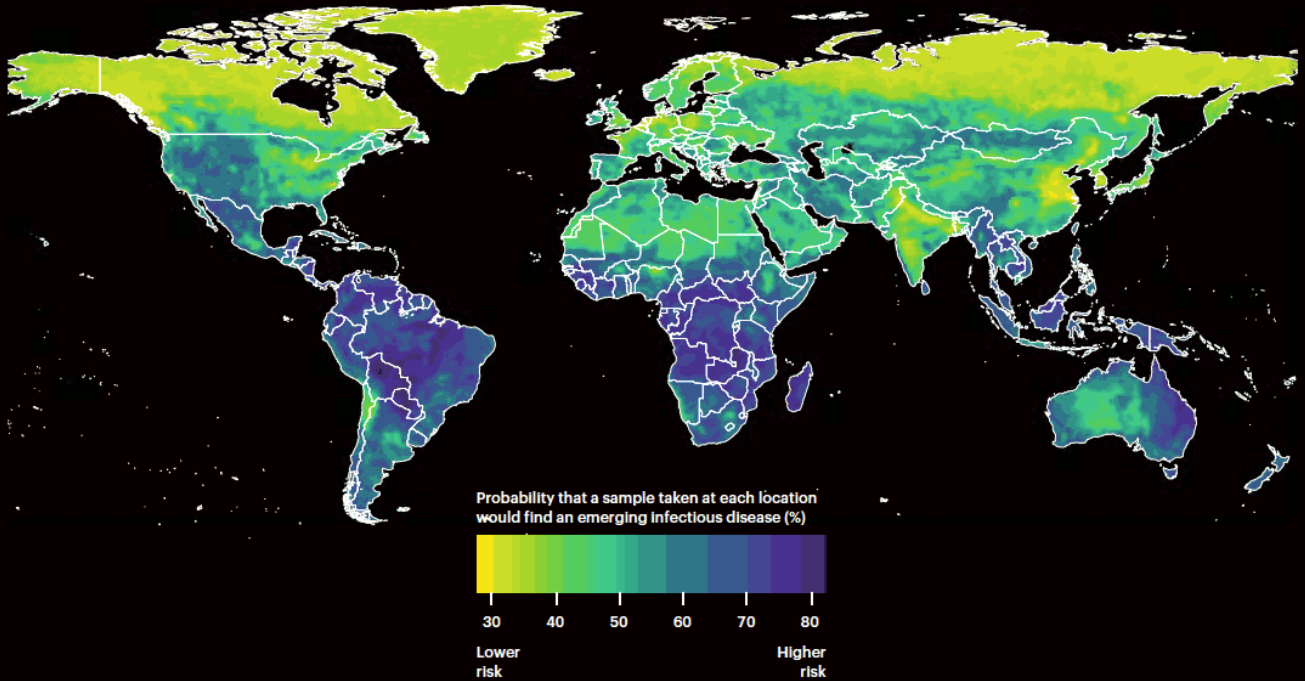
**'VETS SEE THE  
DANGERS OF ANIMAL  
SPILLOVERS. PEOPLE  
ARE WAKING UP TO  
A STORY THAT WAS  
ALREADY THERE'**

**YANTHE NOBEL  
ZOO NOTIC DISEASE RESEARCHER**





Where novel infectious diseases are most likely to emerge



SOURCE: GLOBAL HOTSPOTS AND CORRELATES OF EMERGING ZOO NOTIC DISEASES (2018), ALLEN ET AL.

FT graphic



Clockwise from above:  
 a pangolin rescued from  
 trafficking in Indonesia;  
 Peter Piot, who co-discovered  
 the Ebola virus in 1976;  
 Dennis Carroll, head of the  
 Global Virome Project



**'WHATEVER THE NEXT  
 EVENT WILL BE - AND  
 WE KNOW THERE'LL BE  
 ANOTHER EVENT - IT'S  
 ALREADY OUT THERE'**

**DENNIS CARROLL**  
 GLOBAL VIROME PROJECT (ABOVE LEFT)

◀ He points to the factors that make disease emergence more likely, such as deforestation and the illegal trade in wild animals. Forests cover about a third of land on Earth, but they are being cut down, often to make way for cash crops or cattle farming. Every minute, forests the size of 35 football pitches are cleared.

"This probably started already when we became sedentary, from nomads," Piot says. "And I'm not saying we should go back and live like nomads. But when you put it all together - population pressure, urbanisation, agricultural practices, deforestation, high mobility... and then climate change is going to make all these things worse."

As the planet warms up, it is changing the patterns of disease. Insects that carry zoonotic diseases, such as ticks and mosquitoes, are expanding their range and moving into new areas. Lyme disease is spreading into North America and across Europe, recently prompting the European Centre for Disease Control to launch a monitoring programme for the illness, which is carried by ticks.

Extreme weather events such as drought and flooding also have a big impact. For diseases like dengue fever, heavy rains make its spread more likely by creating breeding grounds for the mosquito that carries it. Last year there were a record number of dengue cases in Latin America - more than three million - amid concerns that climate change will exacerbate the disease.

While these are not new viruses, they are spreading in new areas and interacting with trends such as deforestation in ways that we don't yet fully understand. As humans impact the planet in both obvious and non-obvious ways, by some counts new viruses are appearing more frequent.

The broad outlines of how these diseases emerge are clear: they typically come from animals, spilling over into humans through close contact. And the places where this is most likely to happen are also known: disturbed land, fragmented habitats and wildlife markets.

Knowing all this didn't stop the world from suffering through coronavirus. But maybe, just maybe, it will help us get it right next time - or at least improve our chances.

**D**ennis Carroll certainly thinks so. He has spent nearly his whole life looking for viruses and is leading an ambitious project to find more of them - all of them, in fact.

Sporting shoulder-length white hair and a silver-and-turquoise bracelet, Carroll looks a bit like the godfather of viral research. And in a way he is: he spent a decade leading a \$200m virus-hunting programme called "Predict" at the United States Agency for International Development. Now he is the head of the Global Virome Project, a research group with a mission to catalogue all the viruses that could pose a threat to human health.

We speak via Zoom; a Tibetan *thangka* painting hanging on the wall behind Carroll signals how much time he has spent chasing viruses in various corners of the world. And while over recent months he has been sheltering on his houseboat on the Potomac River near Washington, the pandemic has lent a new urgency to the project.

"The Global Virome Project is basically about going to the viruses before they come to us, and

putting together a comprehensive database," he says. "If we had this data, we would have picked up Covid-19 in October [2019], for instance."

That's a bold claim - but Carroll likes to dream big. He believes our response to novel viruses is limited because we don't know about them in advance, before they start infecting humans. "Whatever the next event will be - and we know there will be another event - it's already out there," he says. He refers to these unknown viruses as "viral dark matter".

To build this database will be expensive. Carroll estimates it would take about \$1.6bn and at least 10 years to find 75 per cent of the 1.6 million viruses - or, if they can raise the funds, about \$3bn to capture 90 per cent of viruses. The Global Virome Project is working on fundraising from governments, philanthropic foundations and tech companies.

For years, the US was the biggest funder of this type of research through USAID's Emerging Pandemic Threats programme, which Carroll led. This included Predict, which catalogued and sequenced more than 900 novel viruses. But USAID decided to pull its funding for Predict under the Trump administration in 2019, just before the arrival of the Covid-19 pandemic. With the programme now shuttered, several of its leading scientists are working with the Global Virome Project to carry on the research.

The Global Virome Project is considered something of a moonshot in the scientific community: even if all those viruses were identified, we might not be able to tell which ones are contagious and threatening to humans.

"What is key to know is which ones are the viruses that can, for humans, not only infect but have the ability to be transmitted from humans to humans - and science is not yet there," says Piot. "Humans are probably becoming infected with viruses from animals all the time but in most cases it is aborted, in the sense that it may cause a problem in one person, but that is it."

Some researchers say the funding could be better used elsewhere. "There is a huge amount of marketing around this idea that it could stop the next pandemic," says Kris Murray, who previously worked as part of the Predict program and is an associate professor at the MRC Unit The Gambia, at the London School of Hygiene & Tropical Medicine. "The big problem is it is far, far too many viruses to shortlist. It starts to look like a very long list of things that will just never make it into people."

But supporters say that the research at Predict has already helped in the fight against Covid-19, and the Global Virome Project will too.

"We discovered more than 100 novel coronaviruses, we also identified more than 60 known coronaviruses and started to expand dramatically the information on what hosts they're in," says Jonna Mazet, a professor of epidemiology at the University of California Davis School of Veterinary Medicine, who was the principal investigator for Predict and is now on the board of the GVP.

Some of those coronaviruses were used to examine whether the drug remdesivir - currently the only retroviral approved for use against Covid-19 in the US - could be effective against coronavirus, she says, adding: "And even if it doesn't help us prevent, it prepares us to have the data to be ready to jump into action."

**O**ne thing that scientists agree on is just how little we know about what's out there. We haven't identified all the mammals on the planet, let alone all the viruses. And even the viruses we have identified often remain mysterious. Ebola is one example: scientists have not been able to confirm which animal the virus resides in, also known as the reservoir host. Influenza viruses are another: because they mutate so quickly, a broad vaccine has never been possible.

"Every time we're out there doing long-term surveillance, we're finding new species of vertebrates," says Tom Gillespie. Take bats: about 1,400 species have been identified so far, and that number goes up each year. Bats are particularly interesting to epidemiologists, because they harbour so many viruses that can be harmful for humans, including Sars and Ebola.

Gillespie's work focuses on monkeys and great apes, which often act as sentinels for pathogens that impact humans because of their genetic similarity to us. Sometimes they can pass viruses to humans - HIV crossed over from chimpanzees - but humans can also pass viruses to apes (something of particular concern during Covid-19).

Gillespie has done research in the tri-national area in central Africa close to Dzanga-Sangha, a region famous for its gorillas. Research on the front lines is very difficult, he says, which is partly why he is among those sceptical of efforts to catalogue all the viruses in the world. Gillespie has been chased by elephants and armed poachers, and contracted a fair number of tropical diseases, including severe haemorrhagic dengue, which took several months to recover from. "We are going to the places no one wants to go," is how he puts it. "It's very uncomfortable."

Viruses are even more diverse than mammals, he explains, because they do not have a common origin. "Every time we look for viruses, either in vectors or in hosts, we find new things, and they often challenge our understanding of the diversity of the viruses that are out there."

Another thing scientists can agree on is that destruction of the natural world makes it more likely that new viruses will emerge and spill over into human populations. Cutting down forests, planting single-crop plantations for palm oil and operating large livestock farms can all increase human contact with emerging diseases.

"It doesn't matter if you are a gorilla or a human, if you have a disturbed forest, you have a shift," says Fabian Leendertz, head of the Leendertz Lab at the Robert Koch Institute and Nobel's PhD adviser. "You suddenly have diseases which become very abundant which were not abundant before. Things come into contact which were not supposed to be in contact. Some things die out, others become superabundant... So you have a higher likelihood of disease being transmitted, that is clear."

Habitat destruction also means that only the hardiest species survive - the very species most likely to carry disease. One example is the multi-mammate mouse, a common species in west Africa and the carrier of Lassa fever. The mouse appears to thrive in degraded landscapes such as agricultural plantations and around households, and Lassa cases have been increasing over time, killing thousands of people each year. ▶



◀ Another issue is landscape fragmentation: Gillespie's research shows that a tipping point occurs when about 40 per cent of an area has been destroyed. "That's when everything starts pouring out," he says. "Animals are behaving in very different ways than they normally would just to survive. They're looking for food."

We do not yet know whether a similar dynamic might have contributed to the emergence of Sars-Cov-2, which is believed to reside in a type of horseshoe bat as its reservoir host. From there the virus may have crossed directly into humans, or transferred through an intermediary such as a pangolin. The suspected role of the pangolin in Covid-19 - although still unconfirmed - points to another factor which was almost certainly in play: the illegal wildlife trade. Trafficking rare animals also traffics their viruses.

**W**ith the world in the grip of the Covid-19 pandemic, there is a focus on finding solutions like never before - and not just for this virus but for the viruses to come.

Vaccine research is one area already benefiting from this surge in investment - and an area where the hunt for new viruses could help in the long term. One group in this field is the Coalition for Epidemic Preparedness Innovations (Cepi), which was set up with backing from the Gates Foundation to work on vaccines for emerging diseases. This year it is leading the Covax initiative, which is developing a vaccine for Sars-Cov-2. (Nine vaccines are under development, of which eight are already undergoing clinical trials.)

Melanie Saville, Cepi's director of vaccine research, strikes a rare note of optimism. "Sars-Cov-2 is an example where things are getting better all the time in terms of vaccine development," she says, adding that knowing more about what viruses are out there is important because it can guide research.

"There are a finite number of virus families, 25 or 26, and people do see that some of those families are more likely to have an emerging epidemic," Saville says. "So working on viruses in those families you can learn an awful lot, even if that isn't an exact match of what will come in the future." When Sars-Cov-2 came along, previous research on Mers (Middle East Respiratory Syndrome), which is also caused by a type of coronavirus, helped accelerate vaccine development.

Cepi and others are also trying to develop vaccines that could target entire families of viruses, though that goal has been elusive so far. Sometimes the barriers to development are not just scientific: pharmaceutical companies have been reluctant to invest in vaccines for diseases that impact poor and remote populations. One example is Lassa fever, which has been around for 50 years but with no vaccine developed yet. Part of the reason Cepi was set up is to address these gaps. (It has six vaccines in progress for Lassa fever.)

Developing futuristic broad vaccines and cataloguing every zoonotic virus on the planet are both compelling ideas - but many years away from becoming reality. What else can be done in the meantime? Addressing the environmental destruction at the root of many new diseases is one option, albeit a difficult one. The logging of the Amazon rainforest - another hotspot for disease

emergence - is of particular concern right now for ecologists and epidemiologists.

But two approaches stand out that may be able to make a difference in the near term. One is to monitor human health more closely in hotspot areas so that new diseases can be spotted and treated more quickly. Another is to incorporate ecology more closely into public health decisions.

Tying human health programmes together with wildlife monitoring is already starting to happen in some areas. In some parts of Brazil, for example, primates are tested for yellow fever, so that humans living nearby can be vaccinated if necessary. Climate patterns and seasonal weather variations can be used to predict the timing and intensity of diseases such as dengue and cholera.

Researchers on the front lines say it is impossible to separate human health from the health of our natural world. Christian Happi, head of the African Center of Excellence for Genomics of Infectious Diseases in Ede, Nigeria, is setting up an early warning programme that will detect disease in humans and report the findings to local health authorities.

"I don't think the next pandemic is going to be predicted by some machine learning or some algorithm," says Happi, a professor of molecular biology, whose lab diagnosed the first case of Ebola in Nigeria. "You have to be on the ground. What is needed is to set up a very solid and strong surveillance system that enables people to detect these pathogens in real time, and then make this information available."

Growing up in Cameroon, Happi wanted to study biology after watching many of his childhood friends die from malaria. Now he is on a mission to set up more diagnostic capacity in Africa so that samples don't have to be sent off to labs in Europe. "These outbreaks always start in small places and we need to empower people working there, those front line healthcare workers," he says. He also is setting up a new surveillance network called Sentinel, aimed at improving detection of known and unknown viruses across western and central Africa.

The economic devastation caused by Covid-19 has also renewed discussion about ways to decrease the risk of viruses spilling over closer to their source. A recent paper in *Science* estimated that spending about \$50bn annually on measures such as reducing deforestation and curbing wildlife trafficking would pay for itself many times over by decreasing the risk of the next pandemic. "A major effort to retain intact forest cover would have a large return on investment, even if its only benefit was to reduce virus emergence events," it stated.

As the world fights on against Covid-19, researchers say that there are some silver linings. It has triggered a huge amount of investment and research. Scientists are collaborating more across fields - critical for an area such as zoonotic disease, which cuts across ecology, epidemiology and molecular biology. Advances in genetic sequencing could arm us better when the next virus arrives. And there is a fresh acknowledgement that human health is deeply connected to the health of our planet.

"A wake-up call is an understatement," says Piot, director of LSHTM. "If Covid doesn't do it, I don't know what it will take." **FT**

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*Leslie Hook is the FT's environment and clean energy correspondent*

Clockwise from right: deforestation in the Central African Republic; the African multimammate mouse, which can spread Lassa fever; a Western lowland female gorilla in the Dzanga-Sangha reserve

YANTHE NOBEL; GETTY IMAGES; GAMMA-RAPHO VIA GETTY IMAGES; PHOTOTHEK VIA GETTY IMAGES; MARCROFT MEDIA VIA GETTY IMAGES; AFP VIA GETTY IMAGES; WAGNER MACHADO CARLOS LEMES; SHUTTERSTOCK







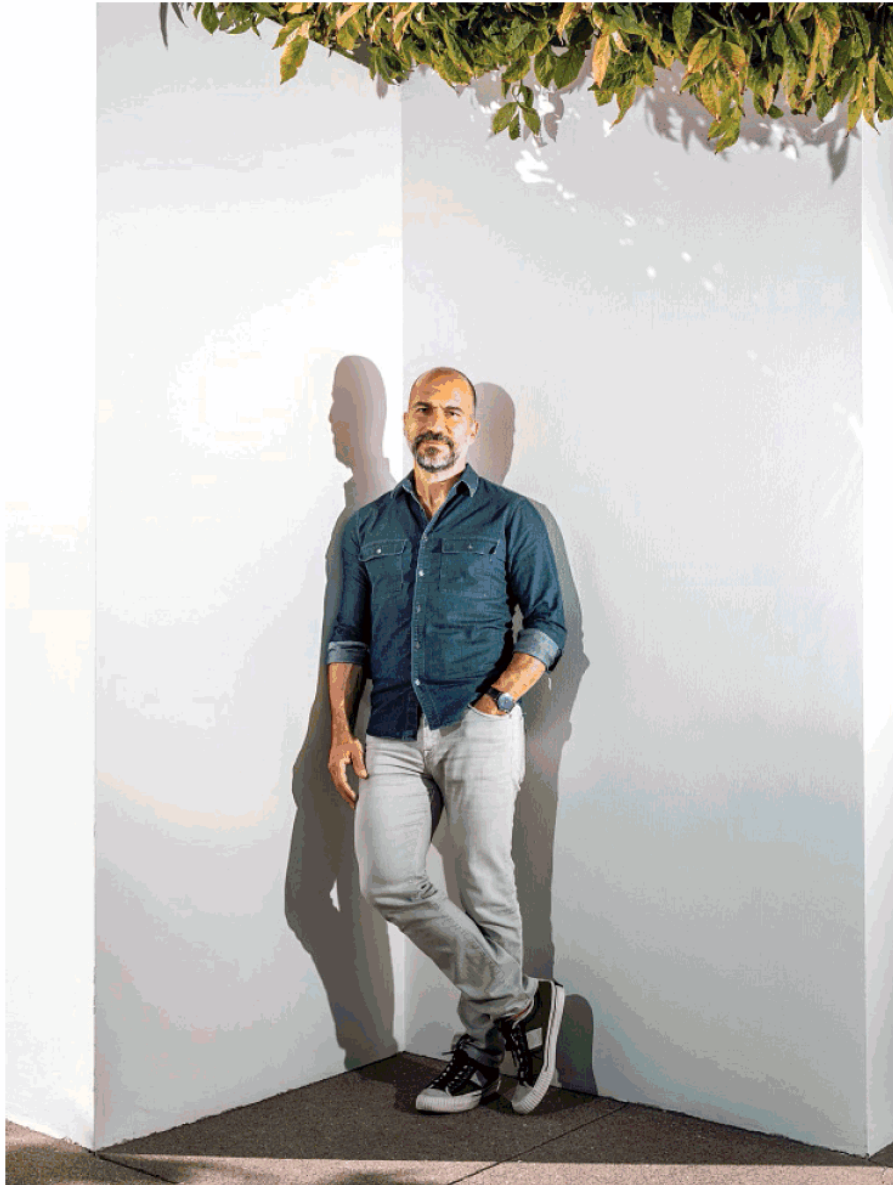
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REASON FOR MORE  
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Plagued by scandal under controversial co-founder Travis Kalanick, Uber now faces an existential challenge as Californians vote on a revolution in the gig economy. Can CEO Dara Khosrowshahi steer it through? *Dave Lee* reports. Portraits by *Kelsey McClellan*

# UBER AT THE

**D**ara Khosrowshahi logs on to our Zoom call from his home office in San Francisco, sitting bolt upright in a chair designed for hardcore video gamers. It was a recent gift from his wife, Sydney, who said he'd spent so long sitting in his office lately that he might as well be comfortable.

Over the past few months, Uber's chief executive has lobbied into his webcam on behalf of the future of his company and the industry it helped create. The gig economy, where the jobs came fast but the norms and protections of regular work disappeared even faster, is now facing challenges from labour organisations and politicians.

I've been to Khosrowshahi's house before but only to stand outside. In June, I watched as a caravan

of Uber drivers crawled past, honking and hollering. A 73-year-old man named Vernon, a full-time Uber driver, said he couldn't afford to care for his dying mother. Two other drivers held up a banner: "A thief lives here," it read.

Khosrowshahi wasn't there to see it. He and his family were at their second home off the coast of Seattle. Their San Francisco property has since been blurred out on Google's Street View—a request of his security detail, Khosrowshahi assumes, apparently unaware. "I'd say it's one of the less comfortable parts of my job. I'm comfortable with the public interest in me as a CEO. I'm uncomfortable with the public interest in myself and my family or where I live."

Khosrowshahi, 51, has been in charge of Uber since 2017. He took over when the company was falling

apart thanks to a poisonous culture left behind by its co-founder, Travis Kalanick. Kalanick was the kind of man Silicon Valley used to worship—a disrupter. When building Uber, he'd run roughshod over regulations and competitors. He was changing the world. Everyone else was just too slow to keep up.

This attitude created a company that upended global transport, decimating the licensed-taxi business. Before Uber, the joke goes, we were scared of strangers on the internet. Now we summon them to pick us up. Today, Uber has about five million drivers on its platform globally.

By 2015, Kalanick had created a start-up worth more than \$50bn. But he also created the conditions for the compounding scandals that eventually led to his ousting. In February 2017, whistleblower Susan Fowler wrote a blog post that detailed an ▶

Left: Uber CEO Dara Khosrowshahi in San Francisco in October 2020. Below: pilot models of Uber's self-driving cars in Pittsburgh, Pennsylvania, in 2016



# CROSSROADS



◀ atmosphere of sexism and sexual harassment. Kalanick apologised. The same month, dashcam video footage obtained by Bloomberg showed a furious Kalanick telling a financially challenged Uber driver that “some people don’t like to take responsibility for their own shit”. He apologised again.

When news emerged of Uber’s deception of public officials, through the creation of special software that cloaked the movement of Uber drivers in cities where it was banned, it was the third major scandal in a matter of weeks. An internal investigation, led by former US attorney-general Eric Holder, led to the sacking of more than 20 employees. By June, Kalanick was gone.

Uber needed someone who could salvage the company and drive it towards a blockbuster stock-market debut. It needed someone with experience of handling large businesses without drama. In other words, they didn’t need a disrupter, they needed a diplomat. They found one in Khosrowshahi.

“You’ve got to give Travis the credit for one of the biggest disruptive stories in technology over the past decade,” says Dan Ives, an analyst with Wedbush Securities. “But it was clear he would not be the one who would lead Uber to its next chapter. Dara would, on the fly, listen to investors and change the business model towards profitability.”

Within three years, the new chief executive has turned around Uber’s reputation and steered it through a bumpy initial public offering. But now, as politicians globally demand better treatment of gig-economy workers, Khosrowshahi is facing a bigger battle: the survival of Uber’s business model.

**Born in 1969 into one of Iran’s wealthiest families, Khosrowshahi had an upbringing of turbulent privilege. “Bullets rang through our house,” he remembers of the time, aged nine, when he saw a member of the Revolutionary Guard, bursting through the grounds of their property to reach a neighbour, accidentally discharge his weapon.**

For his mother, it was the final straw. They fled Tehran, eventually moving in with relatives in Tarrytown, an affluent village 25 miles north of Manhattan. The new Iranian government seized and nationalised the family business – a conglomerate worth hundreds of millions of dollars. Later, when Khosrowshahi’s father travelled back to Iran to care for his sick parent, the government prevented him from returning to America for six years.

“What happened in Iran and the revolution was very, very tough for my parents,” Khosrowshahi says. “But kids are adaptable. It was a different language and a different place – but familiar food at the table.”

Khosrowshahi attended Tarrytown’s exclusive Hackley School, temporarily going by the name “Darren”. “It was a flashpoint moment of desperation,” he says, “after the 24th time that someone asked me ‘Dara? De-rah? Kos-ro-shah-what?’ I like Dara a heck of a lot more than I like Darren.”

As with many immigrants in America, soccer helped him forge friendships. Later, more of his extended family joined him at school, including his younger cousins, twins Ali and Hadi Partovi, who marvelled at his popularity. “We had no friends, we had no social skills,” Hadi says. “And Dara was president of the class, captain of the soccer team, one of the best students all around.”

Khosrowshahi’s origin story isn’t the kind typically lauded by the tech industry. There was no coding in garages or hacking in Harvard dorm rooms. He even finished his studies – bioelectric engineering at Brown – before starting his career. “I’m a closet nerd,” he says. “Maybe not in the way that some of the other CEOs are, but I’ve got a nerd in me definitely.”

“I think there was a shared sense of wanting to work hard to regain what our family lost in the Iranian revolution,” Hadi Partovi says. Several members of the family, including the twins, became formidable forces in American tech. But Khosrowshahi initially took a different path, becoming an analyst at investment bank Allen & Company in 1991, before joining billionaire media magnate Barry Diller’s



From top: an Uber Eats courier in Krakow, Poland; former Uber chief Travis Kalanick in San Francisco in 2018

Uber and Lyft drivers at a demonstration calling for higher pay in San Francisco last year



USA Networks. There his attempts to build a streaming media service didn’t take off but the young executive had made his mark. “He immediately impressed as someone with not only a brain, but with some grace and determination,” says Diller.

In 2005, when Diller’s conglomerate IAC spun out travel site Expedia, Khosrowshahi was promoted to CEO. He quadrupled the company’s value over his 12-year tenure.

**W**hen the time came to replace Kalanick at Uber, Khosrowshahi was very much an outside bet. He was up against Jeff Immelt, then of General Electric, who according to press reports at the time fluffed his presentation in front of the board. Meg Whitman, the former boss of Hewlett Packard Enterprise, lost out after boardroom politicking backfired. Khosrowshahi was the remaining viable candidate. During his pitch, mindful of the type of person he would be replacing, he insisted he alone make the decisions. “There cannot be two CEOs,” one of his slides read.

That Christmas, at an Uber party for members of the press, Khosrowshahi stood on a chair to introduce himself and worked the room. Khosrowshahi was, Diller says, “on the other side of the moon” from Kalanick, who at first kept his seat on the board but soon stepped down and sold all his shares. (Kalanick did not respond to a request for an interview.)

With the business and technology worlds watching, Khosrowshahi set about salvaging Uber’s reputation. First, he tried to instil new company values, replacing commandments such as “Always be hustlin’” with “We do the right thing. Period.”

To help with that transition, he brought in Tony West, a former high-ranking Department of Justice attorney, as chief legal officer. At the time, West was general counsel at PepsiCo and had no intention of leaving, especially given Uber’s reputation. But Khosrowshahi managed to talk him into the job. “We joked, one way or the other, if we’re successful or not, we would become a business-school case study,” West says. “Uber was very much a poster child for people who wanted to point to what had gone wrong in tech.”

Under Khosrowshahi, Uber ended its policy of forced arbitration on sexual assault or harassment claims and settled a multimillion-



dollar employee-discrimination lawsuit. A major data breach, swept under the carpet in Kalanick's time, was made public. West orchestrated the gathering of data for a safety report - eventually published in 2019 - that detailed serious incidents involving Uber drivers and riders, such as 464 reports of alleged rape over two years in the US. It was an act of grim transparency that has yet to be reciprocated by its rivals.

A row with Waymo, the autonomous-car company owned by Google parent Alphabet, perhaps underlined the new era most clearly. Uber was accused of stealing self-driving car technology by Waymo; Kalanick, who was called to testify, was accused by Waymo of knowingly colluding with a pioneering engineer, Anthony Levandowski, to leave Google and bring its tech to Uber.

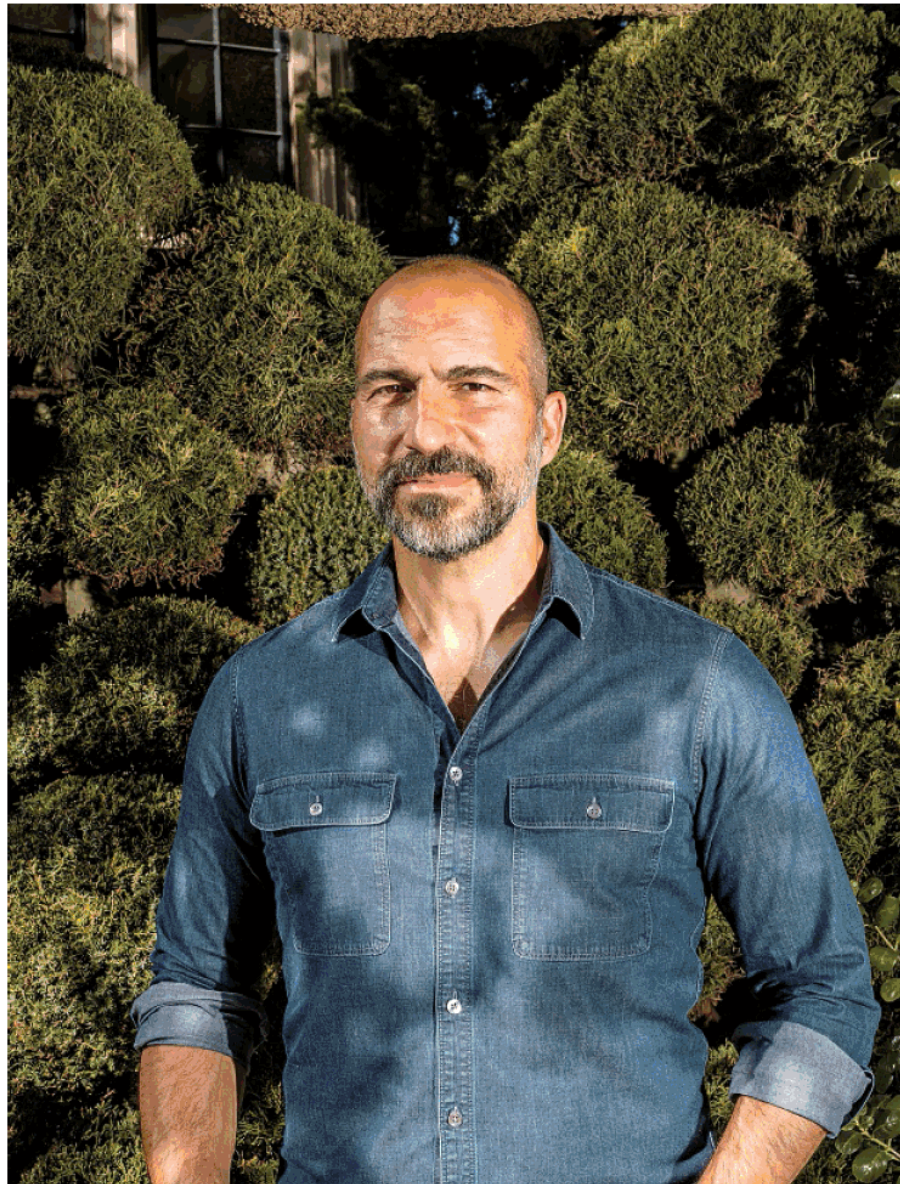
Under Khosrowshahi's direction, West pushed for a settlement and in February 2018 got one. For dropping the case, Waymo would be given a 0.34 per cent stake in Uber, worth \$245m at the time, with a promise by Uber to never use the disputed tech. Such a deal would have been unthinkable under Kalanick, who said it was "clear Uber would have prevailed" had the trial run its course.

"I think Dara brought much-needed adult supervision," says Youssef Squali, a Wall Street analyst. "It really brought that diplomat that was much needed to navigate the company through all the PR and all the regulatory landmines that it was finding itself in."

Khosrowshahi, however, is about to face one of his toughest tests yet.

**On November 3,** Californians will vote on Proposition 22, a measure that would allow Uber - and other companies with app-based workers - to avoid turning drivers into employees, something that would require providing state-mandated benefits such as sick pay, paid leave, unemployment insurance and healthcare. Uber currently treats its drivers as independent contractors: freelancers who cover their own costs for fuel and maintenance. If something goes wrong, they have to fend for themselves. Last year, California passed a law that raised the bar for companies seeking to justify their use of contractors. Uber and other gig-economy companies insisted they met the requirements, but a court disagreed, saying workers had been misclassified.

Uber and Lyft came within hours of suspending ridesharing in the state, sending alerts to users and panicking drivers. It seemed an unfathomable prospect in the ▶



**'I can see a world where if you want to take cash out from the bank, someone will come and deliver cash to you, right?'**

Uber chief Dara Khosrowshahi



◀ birthplace of the gig economy and was avoided only when an appeals court granted a temporary reprieve.

If Prop 22 fails, the writing is on the wall: Uber and Lyft will have to reclassify drivers. This is impossible, they say, without raising prices and greatly reducing the number of drivers on the platform, particularly those who do relatively few hours per week.

For Uber's business, the impact from a shift to an employment model would be severe. Wedbush's Ives is warning investors that an employment model could cost Uber an additional \$400m a year if implemented across the US. "And if they had to do that globally," he says, "that cost could increase by 30 to 50 per cent." Uber's total losses in this year's second quarter, without drivers as employees, reached almost \$1.8bn.

Should it lose Prop 22, Uber has discussed possible franchising models with local fleet owners, where drivers would be hired locally by third parties who would then use Uber's platform to get business. It was a strategy adopted by FedEx in 2014 when it lost a similar employee-contractor court battle.

"We have a game plan," Khosrowshahi says. "Our intent is to keep operating, to comply with the law. It's not clear what that business looks like, and it's not clear how many cities we'd be able to operate in and under what construct. That's what we've got to figure out."

If Prop 22 passes, the attorney-general's case is dead in the water and the gig economy is emboldened. Khosrowshahi's plan - the "third way", as he bills it - would exempt app-based gig companies from the new law. Instead, drivers remain as contractors, contributing to a benefit fund based on how many hours they work. The fund could be drawn upon to pay for things such as basic health insurance or paid time off.

Drivers will be guaranteed earnings - 120 per cent of the local minimum wage - though with a significant caveat: Uber won't count the time drivers are waiting to be matched with a passenger. When you factor in that period, a Berkeley study suggests that Uber's promised \$15.60 minimum an hour instead becomes, on average, just \$5.64, once adjusted for driver expenses such as fuel. Uber disputes the findings.

By the time Khosrowshahi talks to me about his plans, he's recited them so often he's almost fully autonomous - a self-driving CEO at one with his talking points. "It's always been our hypothesis," he says, "that there's a group of our population who values flexibility



Traders at the New York Stock Exchange on the day of Uber's IPO in May 2019

significantly above the benefits associated with traditional labour."

What happens in California will heavily influence how other jurisdictions treat the gig economy, a fact underlined by the financing behind the "Yes on 22" effort. Uber, Lyft and other gig-economy players have jointly put in more than \$180m, making it by far the most expensive contest in California history. The "No" campaign, by contrast, has raised almost \$20m.

"When you look at almost \$200m to \$20m? Yeah, there's a big gap," says Cheri Murphy, a rideshare driver who campaigns with Gig Workers Rising, one of the labour groups against Prop 22. "But what we have is people power. The bottom line is that Lyft and Uber want to exempt themselves out of their responsibilities for treating their workers with dignity and respect."

There are also vocal opponents within Uber itself. Kurt Nelson, an engineer who develops its Android app, wrote an opinion piece for TechCrunch urging his colleagues to vote no. He has been drawing attention to a Prop 22 clause that would require seven-eighths of the state legislature to agree before any changes could be made in future.

"Software engineers would be terrified if they couldn't ever change their code without seven-eighths of their co-workers agreeing," he tells me. "It's part of why a lot of engineers get frustrated with the government and law. They feel like it's an immutable bureaucracy that changes too slowly. And then we look at Proposition 22 - it's specifically designed to slow down change in the future."

The Yes campaign companies have advantages besides their deep pockets. The day before our inter-

view, my smartwatch pinged with an Uber notification urging me to vote "Yes on 22". Pro-22 advertising stalks Californians around the web. Food-delivery app DoorDash, part of the coalition, offered bags printed with "Yes" messaging to restaurants, effectively forcing delivery drivers to promote a measure that some say will leave them worse off.

If Khosrowshahi can win on Prop 22, further challenges lie ahead. There was a time when investors predicted Uber would command a value of more than \$100bn. It didn't work out that way. Uber's first day of trading on May 10 2019 set an unfortunate trajectory: its stock price fell 8 per cent, from a starting point - \$45 a share - that many felt was already disappointing. A short rally quickly became a sustained slump as Wall Street became less patient with loss-making tech businesses, particularly in the wake of WeWork's collapse. Investors were no longer satisfied with disruption, and instead wanted to know how Uber would start to make them money. Many doubted it ever could. At time of writing, Uber's share price was about \$35.

A win on Prop 22 would see Uber's value soar. With regulation secured in California, the company would look to bring similar rules to the rest of the US - and possibly in the UK and Germany, where politicians are just as agitated by the employee-contractor divide. Khosrowshahi says he'll do so proactively. "I'd like to spend less time in court if I can help it," he says. "But I do think that we're going to use this as an outline for a dialogue that we have on a local basis."

Khosrowshahi also needs to address his own reputation. He is

often seen as a money-minded executive more comfortable handling portfolios than nurturing new technologies. While everyone sings his praises for removing Kalanick's worst excesses, there are doubts about his credentials as an innovator, a person who can build on what Uber's flawed co-founder started. "The behavioural things that led to a bad reputation were the bad part of the old guard," says one former executive. "The really good part of the old guard was that everyone was a builder, and everyone was a problem solver. Dara is neither of those."

In fact, he has spent much of the past year dismantling large parts of Uber's business, pulling out of multiple markets where it was struggling to compete. In the US, having lost ground in food delivery to rival DoorDash, Uber struck a deal to acquire Postmates for \$2.65bn. When completed, the move will help it gain some market share. But Uber's first choice had been to buy another service, Grubhub, which was instead snapped up by European group Just Eat Takeaway. Khosrowshahi, whose reputation at Expedia came from shrewd dealmaking, looked like he'd been outplayed.

Uber has offloaded its ebike business, Jump, to scooter group Lime, in return for a stake in that company, and it has given up on Uber Works, its temping platform. A source confirmed it was also looking for a partner or partial sale on its Elevate program, an effort to build a network of flying cars, following reporting this month by Axios.

On the ground, its self-driving unit - which has already taken outside funding - lags behind Alphabet's Waymo, currently in use by the public in Arizona, and GM's Cruise. Uber has been working on self-driving technology since 2015, at a cost of more than \$2.5bn and marred by a fatal crash in 2018.

When I suggest that Uber has escaped any real accountability for this, Khosrowshahi shows an uncharacteristic flicker of annoyance: "I think we held ourselves accountable. We stopped operations, and we rebuilt from the ground up. I think that is accountability."

In May, Uber announced it would cut almost 7,000 jobs, with 45 international offices marked to either close or be consolidated. The company said the pandemic was to blame, but analysts saw a business that was overdue a slimming to reach profitability.

To some, it felt lacking in direction. "When it came to cost-cutting," one former senior manager says,

"we were peanut-buttering across teams. Every team had to cut 10 per cent of people, or whatever it would be. Which is the definition of not having a clear strategy."

The move contributed to the departure of Thuan Pham, the company's chief technology officer. Within the engineering teams, there is growing frustration over Khosrowshahi's decision to cut US workers while outsourcing responsibilities to a rapidly growing staff in India. "It's something that I find quite insulting," Khosrowshahi says of the suggestion he's focused on getting cheap labour. "San Francisco doesn't have a monopoly on talent."

Within the San Francisco office, there is still a suggestion that Uber hasn't been able to move on fully. Former employees who worked closely with both chief executives cite the persistence of a negative, if evolving, culture against women. "There's systemic sexism at Uber," one former senior manager says. "Women are interrupted in meetings - there is a void of women in leadership."

Insiders speak in particular about disappointment around Khosrowshahi's decision to stand by chief operating officer Barney Harford after a 2018 New York Times article

AFP/GETTY IMAGES, NURPHOTO VIA GETTY IMAGES

**'The behavioural things were the bad part of the old guard. The really good part was that everyone was a builder and problem solver. Dara is neither'**

A former Uber executive

suggested he had made inappropriate comments about women and minorities. "I think that shocked all of us," one source says. "We were shocked Dara doubled down."

After our interview, Uber said the company had investigated Harford's comments and determined there was no evidence of discrimination. Harford left the company in June 2019 as part of a leadership shake-up.

Speaking on Uber more broadly, Khosrowshahi said: "The greatest challenge for us is combining our culture now with a lot of the good that came from the Travis days, because it wasn't all bad. It would be convenient or dramatic to say that it was all bad, but there was a real entrepreneurial push. A real innovative push."

In February, not long before the world changed, Uber gave its stock price a boost by promising it would post its first ever profitable quarter - before deducting for interest, tax and depreciation - by the end of the year. Covid-19 kicked that target into 2021. But it has given Khosrowshahi an opening to do something new and prove himself. Lockdown measures mean demand for delivery is off the charts - up 103 per cent in the second quarter of 2020 compared with last year -

thanks to what is expected to be a permanent shift in consumer habits.

He believes Uber's experience in moving food and people has positioned it to become something of a "superapp", a popular and profitable concept in China, where almost all of daily life is now managed through services such as WeChat, which act as a single portal for banking, travel, gaming and more.

In Uber's case, it would revolve around delivery. Like its rivals, it is seeking to ramp up services that can deliver groceries and other items to you in less than 30 minutes. "It's a long way away today but, certainly, we're in a unique position to get there," he says. "Eventually, you know, I can see a world where if you want to take cash out from the bank, someone will come and deliver cash to you, right? It'll be anything that you want delivered to your home."

It's the kind of move, I say, that might put him in competition with Amazon and Jeff Bezos, a man who is known for being anything but a diplomat. "I'm a baby compared to Jeff," he says. "I don't think I'm in his league yet. I've got a lot of work in front of me." **FT**

Dave Lee is the FT's San Francisco correspondent

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Above: 'Morning Glory', c1894, by Kazumasa Ogawa  
Right: 'Bean Longpod', c1895-1910, by Charles Jones



# TAKING ROOT

SINCE THE DAWN OF PHOTOGRAPHY, FLOWERS, PLANTS AND VEGETABLES HAVE BEEN A FAVOURITE SUBJECT AND INSPIRATION FOR INNOVATION. *JOSH SPERO* EXPLORES AN EXHIBITION CHARTING A RICH RELATIONSHIP







Left: 'Large Poppies', 2019, by Richard Learoyd  
Below: 'Pepper No. 30', 1937, by Edward Weston

If you are a plant fan (like me), but know very little about them (like me), there is a range of apps you can point at petals or leaves that will, more or less, identify them. Sulphur cosmos, pinkhead smartweed, the toxic *Brunfelsia pauciflora*, which is purple, lavender and white at once - my app has taught me about all of them. But what would happen if you pointed your phone at any of the images in the Dulwich Picture Gallery's new exhibition?

*Unearthed: Photography's Roots* looks at flower, plant and vegetable still lives since the dawn of the modern era of photography in the 1840s, when chemical processes first allowed us to fix images of the world on to plates and paper. One of the most important things it reminds us of is that there has never been only one way of making a photograph.

Indeed, the attempt to capture flowers helped to advance this technology in its early stages. Take Kazumasa Ogawa's "Morning Glory" (c1894), white flowers with vivid, almost lurid, blood-red streaks. He used the colotype process, a method involving gelatine, potassium chromate and an ink-roller, but added wild layers of colour by making separate plates for each pigment - up to 25 of them, well beyond the six or eight "considered the maximum achievable colour range" at the time, according to the show's catalogue. These flowers still seem hyperreal, so one can only imagine the contemporary shock.

Similarly, Anna Atkins, one of the first female photographers, made cyanotypes of British algae in the 1840s. Here, a sheet is primed with two chemicals before being exposed to the light; the object on it will leave a precise white image on the

blue paper. A fully blue photo might seem odd, but for Atkins there was no "right" way to do it.

Vegetables, a seemingly banal nutritious presence, have likewise occupied photographers in countless ways. Charles Jones, a gardener by trade, took photographs of what he had grown around the turn of the 20th century. They seem monumental in his black and white images, dignified and almost characterful as they sit against simple backgrounds. The range of textures in his pictures - rescued, unbelievably, from an antiques market - is both enticing and astounding.

Edward Weston took an outward-looking approach to his five-a-day, challenging us to be more than passive observers. "Pepper No. 30" (1937) suggests nothing so much as a man's back bent forwards in a posture of grief, his head hidden behind his hands. It's weird to feel so much about a member of the Capsicum family.

Beyond the real and the human is the surreal. Imogen Cunningham's "Agave Design 1" from the 1920s certainly seems to have this heightened drama and visual dislocation. Ostensibly a domestic subject, the sharp spikes of the plant, seen aslant, echo and run against the lines behind it, a small outbreak of violence in an otherwise serene setting.

Nothing is inaccurately captured in these photos - there is no blurring, no distortion. If I did wave my app at them, it might well recognise Ogawa's morning glory or even Atkins' algae. But what it would miss would be the art. **FT**

"Unearthed: Photography's Roots" runs at the Dulwich Picture Gallery, Gallery Road, London SE21 7AD, from November 21 to May 9 2021



DULWICH PICTURE GALLERY: SEAN SEXTON/DULWICH PICTURE GALLERY; RICHARD LEAROYD/MICHAEL HOPPEN GALLERY; ANNA ATKINS & KAZUMASA OGAWA: THE NATIONAL SOCIETY OF PHOTOGRAPHERS; CHARLES JONES: THE NATIONAL SOCIETY OF PHOTOGRAPHERS; IMOGEN CUNNINGHAM: TRUSTEES OF THE NATIONAL SOCIETY OF PHOTOGRAPHERS

**'THE SHOW REMINDS  
US THERE HAS  
NEVER BEEN ONLY  
ONE WAY OF MAKING  
A PHOTOGRAPH'**



Above: 'Agave Design 1', 1920s,  
by Imogen Cunningham  
Left: 'Print 2 (Sargassum  
plumosum)', 1843-53,  
from Anna Atkins'  
'Photographs of British Algae:  
Cyanotype Impressions'



# 'I'd be happy to share what I earn'

As Prince Philip in lavish TV epic 'The Crown', Tobias Menzies plays an alpha male adapting to a supporting role. He talks to *Emma Jacobs* about why too much fame changes an actor, being taken seriously in America and his profession's gender pay gap. Portrait by *Thai Hibbert*

**Fame is tricky for an actor.** Too much is professionally hazardous, says Tobias Menzies. "There is a profound chemical thing that changes when someone becomes very, very visible, the world [transforms for] that person.

"I like to be able to watch the world and not have you watch me too much," he adds. "A big part of being an actor is observing behaviour, how people are, how they live." Celebrity affects the way your performance is viewed too. "I would rather not know who [an actor is] dating or have all their biographical static get in the way of the work."

Fame is also in the eye of the beholder. To use social media as a crude measure, Menzies is modestly famous: 148,000 Twitter followers, compared with, say, Sir Ian McKellen's four million. If judged by the number of people in the street

who bother him, he is more famous in the US for his TV roles in HBO's *Rome* and Starz' *Outlander* than in his north London neighbourhood of Kentish Town.

Menzies claims that he couldn't "deal with too much anyway". From another actor, I might dismiss this as disingenuous. It's the sort of thing actors say all the time and, besides, it arrives during an interview about the reprisal of his role as Prince Philip in the latest series of Netflix's lavish costume epic *The Crown*.

Yet he is deeply serious about his work. A friend of Menzies who has worked with him describes his approach as thoughtful and intense, committing fully to a role in a process that might have been called "method" in the past. If that makes him sound po-faced, today he is lively and engaging. He's also pragmatic, aware that fame is a

currency that can "influence your career" and open doors to exciting roles and big paydays.

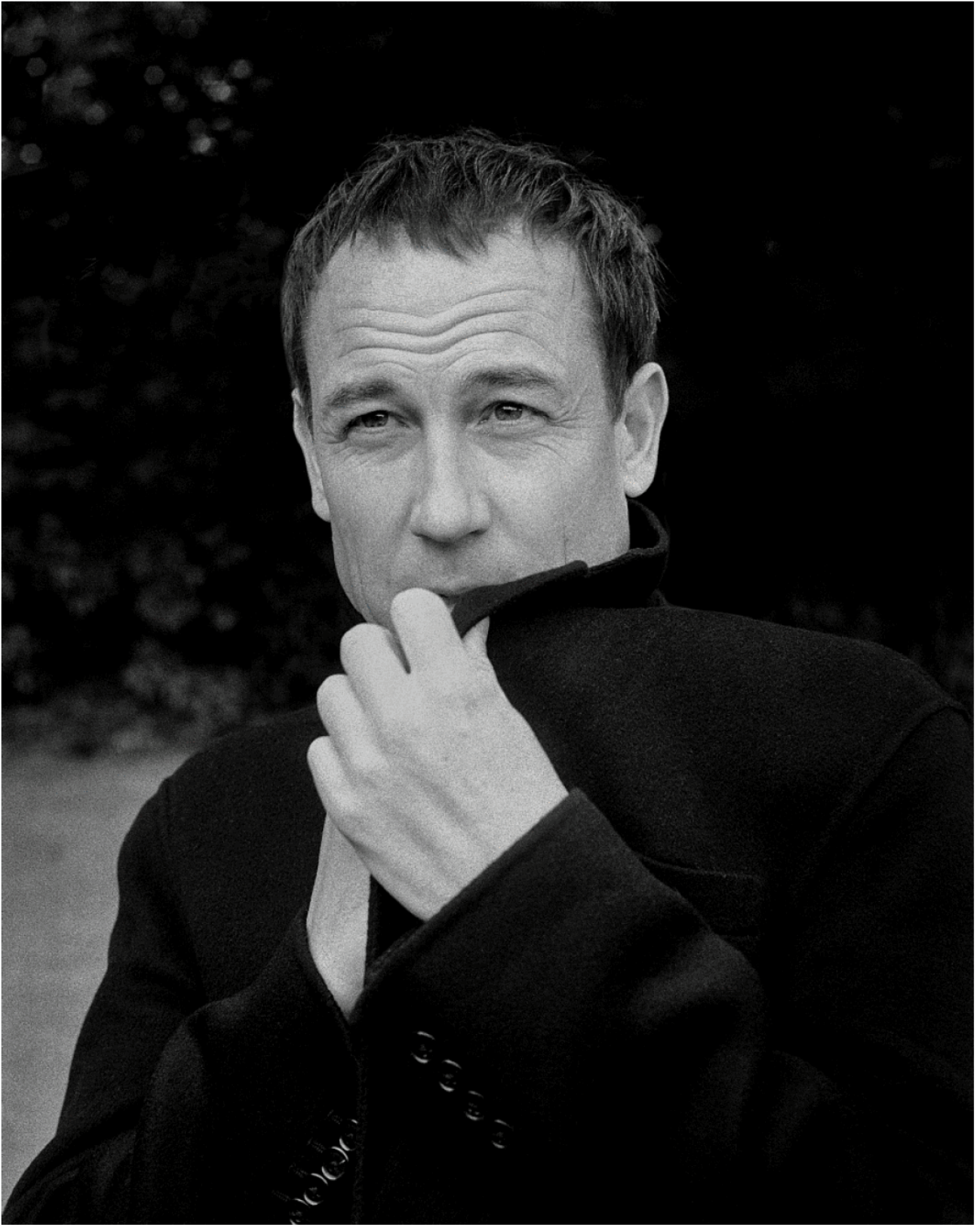
Perhaps more neighbours will recognise him after his second season as Prince Philip, which involved bleaching his eyebrows and sporting a dirty blond wig, though the actor's hard jaw and long creases on either side of his face remain intact. More than 70 million households across the world have watched the drama that was created by British playwright Peter Morgan in 2016 and is reportedly one of the most expensive in TV history. In the previous season, which covered 1964 to 1977, Menzies took over the role from Matt Smith, with Olivia Colman as the Queen. It earned him a Golden Globe nomination.

The latest season explores the arrival of Diana in the family and the impact fame has on her

marriage to the stodgy Prince Charles. It is also bookended by Margaret Thatcher's rise and fall as prime minister. The fictional portrayal of the Queen and Prince Philip is a tonic to 2020's audience - offering the comforting thought that at least someone may be in charge.

As preparation, Menzies watched TV footage to study the Duke of Edinburgh's posture and voice but also to try to understand his personality. "It's such a strange role [Philip has], it's highly ceremonial [and] doesn't really have very much actual power." He says there is tension between the prince's supporting role and him being an "alpha male, clearly very active... likes to be busy, likes to do".

That struggle - if such a description can be applied to the royal family - defined Philip's character in the last series. It was ▶





## Royals, rogues and renegades...

From left: As Frank Randall, one of two characters he played in *Outlander*; as Edmure Tully in *Game of Thrones*; with Poppy Miller in *Hamlet*; with Aisling Bea in *This Way Up*; as Prince Philip in *The Crown* with Olivia Colman as the Queen



◀ crystallised in an episode that saw him undergo an existential crisis sparked by his sense of impotence, contrasted with the full-throttle ambition of US astronauts rocketing to the moon. In the latest series, Philip appears reconciled to his position and his character arc is more subtle, focused on his relationship with his family.

The opening episode centres on the IRA killing of Lord Mountbatten in 1979. A scene between Philip and Charles shows the complexity of this father-son relationship, each an emotional enigma to the other. Philip sketches a kind of familial love triangle in which Mountbatten played a paternal role to both. "I barely knew my own father," he says. "Dickie [Mountbatten] understood that and stepped in as a surrogate, which meant the world to me. Then years later, maybe when he saw the struggles between the two of us, he switched horses and started caring for you, I was no longer the priority..."

Menzies, whose performance as Philip is marked as much by what he does not say as what he does, was interested in the role reversal between the two men. "Philip is the more childish figure... and Charles plays a slightly more adult role. There seems to be a lot of anecdotal

evidence that there hasn't been a very straightforward relationship. Philip obviously doesn't find it that comfortable to be around how sensitive Charles seems to be."

The central contradiction for Menzies is to understand the psychology of a man who would spurn the very idea of analysis. "He would probably not like the way the scene is done," he reflects.

This empathetic portrayal gives no indication of Menzies' own disagreement with the hereditary monarchy. Working on *The Crown* has brought home to him "the benefits... and the continuity, particularly in times like now, when things [are] unstable. But has it fundamentally changed my politics? Probably not."

Menzies, who has tended to vote Labour ("with odd flirtations with the Liberal Democrats"), describes *The Crown* as "relatively apolitical", though Gillian Anderson's charismatic portrayal of Margaret Thatcher is a reminder of the Tory leader's disruptive - creative or destructive, depending on your view - impact on British society. This is explored in an episode that depicts the moment when Michael Fagan broke into the Queen's bedroom in 1982. The juxtaposition of Fagan, portrayed as a victim of

Thatcherism, with the cosseted Queen amid the opulence of Buckingham Palace, becomes a way of looking at the country through the prism of two personalities. Menzies admits: "[Thatcher is] the most divisive prime minister that the show has tried to represent. There may be some pushback this time."

*The Crown* finished filming two weeks before the country first entered lockdown. How did he find that period? "Honestly, I found it hard, actually. If you live on your own, meeting friends is an important part of life... I'm missing hugs." Conscious of his good health and financial buffer, he volunteered via the NHS app. Talking about social duty, he briefly slips into the royal third person. "You're trying to do what one could because one did feel quite helpless." Lockdown also taught him that he is a "bit of a workaholic. Work keeps me on the straight and narrow. I really missed the natural rhythms of filming. I used to go to the theatre to see stuff and obviously do it as well."

As arts organisations are buffeted by the pandemic, Menzies is, unsurprisingly, concerned about Britain's cultural future. "There seems to be a complicated relationship between this government and the arts. It's hard

not to sometimes feel that may be a tad ideological."

The 46-year-old worries too about the impact on young actors. "My first years were predominantly in the theatre, sometimes in the regions, travelling around, learning my craft and making mistakes, and getting better, and theatre is an amazing school for that."

**R**upert Goold, artistic director of the Almeida Theatre, has been a friend of Menzies for 20 years and worked with him on numerous plays, including *Hamlet* and, last year, *The Hunt*, a stage adaptation of the Danish film by Thomas Vinterberg. He says that while Menzies loves company and conversation, "he is innately private... on stage he opens up.

"His approach to rehearsals is [they are] just one section of a 24/7 work," Goold continues. "He's endlessly curious - he really loves art, he likes dance, fine art. He's like a magpie. You do need to be very singular about being a proper artist... He still, above all, loves the curiosity of creativity. In actors, particularly men after 40, that becomes rarer but I think he really does." At the same time, Goold sees in Menzies a detachment that



## 'I found lockdown hard. If you live on your own, meeting friends is important... I miss hugs'

allows him to "talk about acting in an objective way, to see with intelligence what his role is in the piece - sometimes actors can't see that they are a counterpoint in the story."

Menzies' love of theatre was nurtured by his mother, a teacher who divorced his father, a BBC radio producer and writer, and moved Menzies, aged six, and his brother from London to Kent. After leaving school, he went to Stratford-upon-Avon to find out what he wanted to do. "I did some acting, directing, sound design and costume... It was the early '90s, a heyday of physical theatre, visual theatre, dance theatre, Ballet Rambert."

It was only at Rada that he got the acting "bug". After graduation, a semi-regular part on the long-running TV medical drama *Casualty* gave him "camera training". In 2005, he took the part of Marcus Junius Brutus in HBO's *Rome* in the era that saw the "explosion of television". Outside of *The Crown*, he says, "all my significant TV work has been for American companies. I'm taken more seriously over there and that started with *Rome*." The show also provided opportunities beyond acting. "When you're in at the ground level, [you can] have quite a lot of [creative] input..."

That's certainly been true of *Rome* and shows like *Outlander*."

*Outlander*, a time-travel drama, saw Menzies switch between two roles - the honourable postwar historian Frank Randall and the sadistic 18th-century Captain Black Jack Randall, fighting Highlanders in Scotland. Rolling Stone magazine labelled the character of Randall one of the greatest TV villains of all time, "glowering and growling through every scene as though he's a man incapable of experiencing pleasure at all, except at the expense of other people".

It became a "big show" for Menzies, earning him his first Golden Globe nomination, but he says at the start "no one really cared what we were doing up in Scotland, we were all pretty unknown. That first season, the writers and the directors, the showrunners and us, we really formed that together. That aspect, being pretty involved in creative conversation, is really great." The challenge is how to evolve a character over time.

*Game of Thrones*, in which he played the character of Edmure Tully, was very different. "I dived in and out, plugging into something that was very, very highly realised already." *The Crown* was different again, playing a character whose

tone had been established by a different actor.

At first, he says, working in front of a camera felt "less instinctive" than theatre but it is something that he has come "to love a great deal". In December, he will start shooting a second series of Channel Four's dark comedy *This Way Up*, with Aisling Bea, in which he plays an English father who is so reserved that a tiny physical gesture is achingly emotional. "I love the show. I think Aisling's made something really kind of unusual, funny, but also had a lot of kindness and heart and sadness," he says.

A benefit of bigger-budget TV shows such as *The Crown* is that the higher pay allows him the freedom for doing periods of theatre. (A cherished role was the doctor in Robert Icke's 2016 radical updating of Chekhov's *Uncle Vanya*, which the FT praised for Menzies' dexterity at "portraying an ostensibly offhand cynicism while nursing a secret kernel of self-regard". Menzies calls it "some of the best work I've been involved with in theatre".)

But in 2018, *The Crown* sparked controversy when Claire Foy, who played the young Queen in series one and two, discovered she earned considerably less than Matt Smith, her on-screen husband.

This has been reversed in the current series but Menzies is relaxed about Colman earning more than him. Earlier this year, the pair turned up to the Golden Globes wearing 50:50 pins to support sex equality among actors. He describes their pay gap as "proportionate" because she brings "a huge amount to the show and is significantly more visible. Olivia getting paid more than me is the exception rather than the rule," he adds. "There's still some way to go."

Actors' pay is the ultimate star system, with disparities hidden. "If we want to sort it out and get it more equal, regular transparency will be required," he says. "I'd definitely be in favour of that. It [would] probably flush out some of the worst excesses of unequal pay. I'd be happy to share what I earn more."

What did he earn for *The Crown*? Transparency only goes so far. "What I mean is solidarity and clarity between actors is good because it does mean that companies can't play actors off each other. In the secrecy and the silence, [film and TV] companies are able to pay women less than men." **FT**

.....  
Emma Jacobs is an FT features writer. "The Crown" series four starts on Netflix on November 15





# Honey & Co Recipes



## Natty patties

We very rarely get nervous when we cook for guests - we do it for a living, after all. Yet there is one particularly fussy crowd that does keep us on our toes: our friends' brood - 12-year-old Gabriella, an opinionated vegetarian; 10-year-old George, a jokester who likes his meat; and Eliza, five, who prefers to play with her food rather than eat it.

We have known these kids since they were born. They are our fiercest critics - and the ones whose opinions matter most to us. We know they won't say the food is nice if they don't think it is and they certainly don't finish what's on the plate just to be polite. They either eat it or they don't, and if they compliment the kitchen, we know they mean it.

This time, we decided to play it safe. In the past, patty-shaped food has proved popular

with the children, as has anything fried - so we made these fritters. To please the parents, we crammed them full of vegetables (grated to conceal from the kids), adding enough seasoning to give a strong punch.

On the day, they went down well with the adults, children, carnivores, vegetarians and those who play with their food (these fritters lend themselves to a game of plate hockey). George asked if it was falafel and we said that it was not not falafel... and started debating the difference between an affirmative and a double negative.

Unlike falafel, these patties will keep well for the day after because the vegetables ensure they remain nice and moist. We packed the ones left over for Gabriella's lunch box the next day and got a text confirming they were "not un-delicious" - the highest praise. **FT**

By Itamar Srulovich. Recipe by Sarit Packer

## Courgette, herb and chickpea fritters

To make 12 fritters (allow two to three per person)

- 700g soaked chickpeas (from 350g dry)
- 200g courgettes (about two), coarsely grated
- 180g onions (about two), peeled and coarsely grated
- 1 clove garlic, peeled and minced
- 1 small bunch of parsley, leaves picked
- 1 tbs ras el hanout spice mix
- 1 tsp ground cumin
- 1 tsp salt
- 50g chickpea/gram flour
- 1 tsp baking powder
- Vegetable oil for frying

1 - Soak 350g of dried chickpeas in plenty of cold water for at least six hours. They should double in size. Drain and weigh out 400g into a bowl. Put the rest (about 300g) in a pot and cover with plenty of fresh water. Bring to a boil and simmer until just soft (it will take about an hour).

2 - Meanwhile, use a food processor to blitz the 400g of chickpeas with the picked parsley leaves to a very rough breadcrumb consistency and transfer back to the bowl. Grate the courgettes and onions and place them in a colander to drain off any excess liquid.

3 - Mix all the spices, gram flour and baking powder into the blitzed chickpeas. Squeeze out the courgette and onion and add them too. Drain the cooked chickpeas and break them up a bit with a masher or fork. Divide into 12 balls of about 80g each and flatten to a burger shape.

4 - Heat a large frying pan with about 1cm of veg oil. Place the fritters in the pan in one layer. (You may have to fry in two batches depending on the size of your frying pan.) Fry for two to three minutes. Flip carefully and fry on the other side for another two to three minutes. Put them on some absorbent paper before serving with salad and yoghurt.

Photographs by Patricia Niven









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# Jancis Robinson Wine

## Mass appeal



Wine bores have a lot to answer for. Partly thanks to their arcane and often self-satisfied musings, the myth that wine is an elitist drink persists.

But it is certainly a myth - at least in the UK. In a YouGov poll last year, 2,000 UK consumers were asked to name their favourite alcoholic drink. Twenty-eight per cent chose wine, while only 23 per cent chose beer and 20 per cent spirits (presumably the rest were teetotal or cider drinkers). Yet almost half said they assumed that the country's favourite alcoholic drink was beer.

Politicians still tend to think of beer as the vote-catching drink - even in France, where former president Jacques Chirac always insisted on beer when drinking in public. Successive British chancellors - for similar reasons, I suspect - have taxed beer far more leniently than wine. But they are all way out of date.

I vividly remember the first time I saw wine being poured without comment in an episode of the popular British soap *Coronation Street*, way back in the last century. Ever since the 1970s, when Brits started to take regular cheap package holidays abroad and could pull wine bottles off a supermarket shelf without having to go into a special shop and pronounce all those foreign names, fermented grape juice has been part of normal life for many millions. Today there are 33 million wine drinkers in the UK.

Yet the government has increased taxes on wine by 39 per cent in the past 10 years, while taxes on beer and spirits have risen 16 per cent and 27 per cent



As imagined by Leon Edler

'Most people are far more interested in being told how a wine will make them feel than in how it was made'

respectively. Perhaps it would be a vote-winner if wine drinkers were treated more kindly?

One indicator of just how far down the socio-economic ladder wine has penetrated is the average retail price of wine in the UK. The national average for bottles bought off a shelf is £6.22. (It was £5.73 just two years ago but the sliding pound and rising duty have taken the average price of this largely imported product above £6 for the first time.) Of the £6.22, £2.23 is duty and a further £1.04 VAT, leaving a grand total of just £2.95 for the packaging, transport, retailer's margin and the wine itself.

According to research company Wine Intelligence, 72 per cent of British adults who earn £20,000-£30,000 a year drink wine at least once a week. (In a survey they conducted in July, of 2,000 Americans who regard themselves as regular wine drinkers, 24 per cent earned less than \$40,000 a year. Wine is a blue-collar drink.

Like policymakers, many members of the wine trade are also out of date. Those selling wine tend to be pretty keen on what they sell. Many get themselves a wine qualification or two and generally educate themselves to a level above that of the average consumer, thereby putting themselves out of touch with how the majority - especially younger people - view wine. Most people, I suspect, are ▶



## Recommended wines under £10

### WHITES AND A ROSÉ

- Cramele Recca, Wine Atlas Feteasca Regala 2019 Romania  
£5.49 Asda 11.5%
- Marques del Norte Brut 2018 Cava  
£6 Asda 13%
- Drouet Frères, La Marlinière 2019 Muscadet  
£6.49 Waitrose 12%
- Terra Madre Catarratto 2019 Sicily  
£6.50 Co-op 13%
- Via Vinera, Heritage Misket 2019 Bulgaria  
£6.95 The Wine Society 13%
- Qual de la Lune Sauvignon Blanc 2019 Bordeaux  
£6.99 Waitrose until November 3 (usual price £9.39) 13%
- Mitravelas, White on Grey Moschofilero 2019 Greece  
£7.95 The Wine Society 12%
- Côtes du Rhône Rosé 2019 Southern Rhône  
£8 Marks and Spencer 13%
- Poderi dal Nespoll 1929 Famoso 2019 Emilia-Romagna  
£8 Marks and Spencer 12%
- Ch L'Oisellière de la Ramée sur Lie 2018 Muscadet-Sèvre et Maine  
£8.50 The Wine Society 12%
- Mineralstein Riesling 2019 Germany  
£9.50 Marks and Spencer 12%

### REDS

- Terrenal Garnacha 2019 Spain  
£6 Marks and Spencer 14.5%
- Trivento, Reserve Malbec 2019 Mendoza  
£8 Tesco 13.5%
- Ch du Rival 2018 Bordeaux  
£8.50 Stone, Vine & Sun 14%
- Via Vinera Heritage Mavrud 2017 Bulgaria  
£8.50 The Wine Society 13.5%
- Les Pierres Dorées, Cuvée Louis Dépagneux 2018 Beaujolais  
£8.50 The Wine Society 12.5%
- Le Ralle 2017 Aglianico del Vulture  
£8.95 The Wine Society 13%
- Stobl Vranec 2018 North Macedonia  
£8.95 Tanners 15%
- Yerevan Winemaker's Blend 2016 Armenia  
£9.95 Tanners 12.5%



Tasting notes on Purple Pages of JancisRobinson.com.  
Some other stockists on Wine-searcher.com

◀ far more interested in being told how a wine will make them feel than in how it was made.

For someone who sells wine for a living, it's no great sweat to have a corkscrew at home. But do wine merchants ever stop to think about the craziness of selling something that needs a special instrument to access its contents? Or the madness of shipping inexpensive wine around the world in such a heavy, fragile, carbon-emitting and space-guzzling package as a glass bottle?

There is great merit in encouraging alternative, less precious ways of presenting wine. Cans have become hugely popular in the US. Why not elsewhere? Cartons, pouches and pouches in cartons all seem to make perfect sense for the sort of wine that makes up the vast majority that is sold.

Wine writers are in a bit of bind when it comes to recommending what could be called "everyday" wine. Supermarkets tend to have the lowest prices because they wield such buying power. But we are naturally inclined to champion the independent retailers because they can provide much better service and tend to offer better wine overall, though their prices tend to be higher.

Before recommending what looks like a bargain, I often wonder whether the supermarket has really treated the supplier fairly. I expect other commentators do too.

**'In a survey, 28% of UK consumers chose wine as their favourite alcoholic drink, ahead of beer at 23%'**

For the wines I recommend (left), I was clearly not party to the negotiations that resulted in what look like exceptionally good prices. I know that port and particularly sherry producers have long granted ridiculously low prices to supermarkets on the basis that they do at least move stock (I would recommend Waitrose's own-label sheries in particular).

I feel a bit more confident about recommending inexpensive wines from The Wine Society because the mission of this historic British wine-buying co-operative is explicitly not to maximise profits.

The price of basic wine is unlikely to rise any time soon. Despite dramatic increases in online wine sales and reports that alcohol consumption at home has risen, as a result of Covid-19 restrictions, there are many producers who have been left with surplus stock, not least because their restaurant sales have evaporated and because of the 25 per cent import tariffs imposed by the US last October. Expect wine prices all the way up the scale to soften. **FT**

More columns at [ft.com/jancis-robinson](http://ft.com/jancis-robinson)

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**FT Weekend**



## Restaurants

### Tim Hayward



THE CHEQUERS INN IN LINCOLNSHIRE; PORK AND CHORIZO PIE WITH GRAVY. PHOTOGRAPHS BY TIM HAYWARD

### The Chequers Inn, Woolsthorpe by Belvoir, Lincs

I'm not sure if people realise this, but reviewing restaurants isn't exactly a full-time job. Sure, eating out takes time and many hours are spent in the lapidary art, honing and buffing the perfect purple phrase, but most of us have some kind of day job and, last week, mine involved driving a truck full of old bakery equipment up the A1. There's you, thinking we're all rarefied exquisites, cracking a quail's egg on the heel of a black velvet slipper while calling for fine wines. Meanwhile, I'm wearing a check shirt and work boots and wrestling 7.5 tonnes of high-sided vehicle north, through sheeting rain and wuthering crosswinds.

But even rugged, horny-handed sons of toil have to eat, so I messaged a friend with local knowledge and diverted, across the umber fields and sylvan back roads of Nottinghamshire, to Lincolnshire and the micro-village

of Woolsthorpe by Belvoir, where the road opened out to reveal the sixth platonic solid, the English country pub.

They've got the lot at The Chequers: comfy chairs, fires, amusing notices welcoming dogs, a positive embarrassment of nooks and a cast of benign locals peering at you with only mild suspicion. The welcome, yelled across the room from behind the bar and a face mask, was warm and I was seated next to a table of margarine salesmen, planning the subjugation of the western world to "yellow fats and lo-cal spreadables".

Among the starters lurked "wild mushrooms on toasted homemade focaccia", which wooed me with the same seductive rural promise as someone urgently whispering my name under a haycart. My plate looked like a scale model of the Matterhorn executed in penny buns and cream. At base camp, struggling under the weight was a mattress of unbelievably good focaccia, which absorbed the tarragon-scented cream almost as efficiently as I did. God it was good. I took it down in just under 90

seconds, a personal best that drew gasps from the Titans of Industry at the next table. It was either admiration or they'd taken friendly fire from my spatter pattern.

There's a homemade shortcrust pie in the mains section that I'd been tipped off about. They change the filling regularly, so I suppose you could call it a "pie special", except that I firmly believe that all pies are special, each in their own lovely way. Today's was pork and chorizo. The *pimentón* in chorizo usually comes across as brutally totalitarian but here it was reined in to the softest Iberian whiff. As if this moist confit of pork weren't rich enough already, there was also gravy.

Northerners may never embrace Lincolnshire as their own but it is definitely on the right side of the Gravy Line, the notional border, north of which gravy is served outside of the pie, in a jug. There's a lot to be said for this, chiefly that it enables you to get more gravy on the plate than there could ever be space for in the body of the pie. It also means that the gravy can't hide. It has to be really, really good. Good enough to spoon from the plate, to sop up with bread or, in this case, smear across my face like war paint and howl.

As the margarine magnates negotiated whose expense account would pick up the bill, I pushed back from the plate. I wasn't defeated by the pie, but a bowl of peas with onion, bacon and cream had finally done for me. They were vegetables, dammit! How did they make them taste so good?

Unless things get really bad, I'm not going to be driving an HGV for a living, but I'm chuffed as hell that it gave me the opportunity to try out The Chequers, which might never otherwise have appeared on my radar. The place, in a green valley overlooked by Belvoir Castle, is *bijou extrême*. The food is brilliant and the service was the new top benchmark, "Covid Hassled". There are downsides to this new style, granted. It's not slick, but there's a lovely warm feeling that things are weird but everyone's trying their best to make you as comfortable and happy as they can. That - plus pie - is pretty much the definition of hospitality. **3 1/2**

[tim.hayward@ft.com](mailto:tim.hayward@ft.com);

[@TimHayward](https://twitter.com/TimHayward)



'The gravy was good enough to spoon from the plate, to sop up with bread or, in this case, smear across my face like war paint and howl'

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# Games



## A Round on the Links by James Walton



All the answers here are linked in some way. Once you've spotted the link, any you didn't know the first time around should become easier.

1. Who at the time of his death in 2005 was the richest man in Australia?
2. The 2009 documentary film *Bananas!* was an attack on which fruit company?
3. In October 2014, who became Ukip's first MP?

4. In *The Hitchhiker's Guide to the Galaxy*, who rescues Arthur Dent just before the Earth is demolished?

5. The East Sussex town of Rye is on the edge of which wetland?

6. What is Britain's best-selling brand of oven chips (below right)?

7. Which greetings-card chain opened its first shop in Epping in 1968?

8. Religion is 200, technology is 600, literature is 800 – in what?

9. Following whose death in 2008 did members of the public leave flowers at Mornington Crescent Tube station (above)?

10. The 2015 biography of which American writer is called *Every Time a Friend Succeeds Something Inside Me Dies* – which was also one of his characteristic remarks?



## The Picture Round by James Walton

Who or what do these pictures add up to?



+

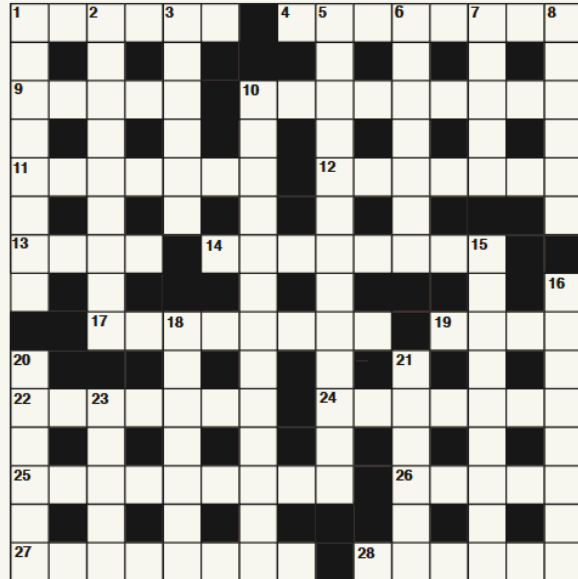


= ?

Answers page 10

GETTY IMAGES; ALAMY; DREAMSTIME

## The Crossword No 512. Set by Aldhelm



The Across clues are straightforward, while the Down clues are cryptic.

### ACROSS

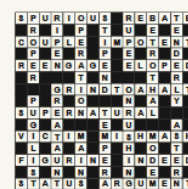
- 1 Strength, resilience (6)
- 4 Drink's "rocks" (3, 5)
- 9 Chilly (5)
- 10 Signalling system using flags (9)
- 11 Natural hazard to shipping (7)
- 12 Liquorice-like flavouring (7)
- 13 Plunder, booty (4)
- 14 Metal container (8)
- 17 Occurring often (8)
- 19 Dull pain (4)
- 22 Believable (7)
- 24 Windfall, jackpot (7)
- 25 Tiny (9)
- 26 There you are (5)
- 27 Access charge (5, 3)
- 28 Subsidiary building (6)

### DOWN

- 1 Bled horribly with main bone (8)
- 2 Informed it's time to remove broken pipe first (6, 3)
- 3 Meanly mistreated amateurs (6)
- 5 Friendly cop with a nobleman I upset (13)
- 6 Everyone left tropically affected islander (7)
- 7 Soundly disapproves of wallop (5)
- 8 Fleet's agent circles rising Cheshire river (6)
- 10 Familiar music sung with treat I organised for one with energy (9, 4)
- 15 Harmonise with the French after endless concert I orchestrated (9)

- 16 US state leader manoeuvred around Washington (8)
- 18 Foreign representation for relocated MBEs, say (7)
- 20 Cooked it? Yes, without my foil (6)
- 21 Rough venue destroyed by an unknown number (6)
- 23 Musical group with number that's clear (5)

Solution to Crossword No 511



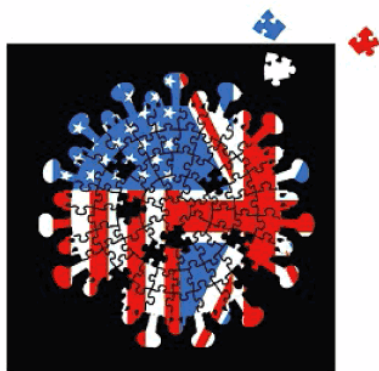




# GILLIAN TETT

PARTING SHOT

## Containing Covid-19 - what we can learn from others



**T**hree months ago, my daughter's high school in New York unveiled a two-part plan to tackle Covid-19. Phase one, from September to Thanksgiving in late November, envisaged bringing the children into school if there were no Covid-19 outbreaks. Thus far, this has largely worked, albeit with a two-week break when a couple of cases were detected.

Phase two, after Thanksgiving, entails a return to online-only school for a few months. The reason? After examining the science in the summer, the school principals decided there was a good chance of a second Covid-19 wave in midwinter. So they tried to get ahead of the curve - as it were - by creating a plan. They kept the online option running in recent months for any pupils who needed it while also conducting random Covid-19 tests on students.

Is this strategy unusual? Not if you live in New York, where many other educational establishments have embraced similar measures, although with a profound - cruel - disparity in how effectively they can do it, since the gap in resources between some private schools and public ones is extraordinarily large.

It is surprising, however, how different the debate is elsewhere. When I visited England for family reasons this month, I spoke remotely to a large group of friends while self-isolating in Cornwall. When I described the pre- and post-Thanksgiving plan, these British parents seemed taken aback. "None of the schools we know has dared to announce a plan for several months - it's day-to-day," one observed. Instead, the dominant approach appears to be a stoic determination to keep pupils in school - plans will only shift, if necessary, at the last minute. Moreover, the British schools I heard about are not doing in-school random testing or talking openly about worst-case scenarios. The provision of online teaching, of hybrid offerings, seems patchy.

Now, like all anecdotal tales, there are lots of exceptions to these rules (and I should stress that the situation in New York is different to other US regions). But I relate them because I think they raise bigger questions. First, how sensible is it to plan ahead, given that Covid-19 is playing havoc with our time horizons? Next, to what degree is our sense of "normality" diverging globally as rules to contain Covid-19 vary worldwide? Finally, and most important, is there a risk that governments don't look beyond their borders to see what works?

On the first question, my suspicion is that it is indeed sensible to plan for a worst-case scenario since this actually helps - not hinders - people's confidence. There is a wide array of research from psychologists showing that if we are faced with a future that seems completely unpredictable - without markers for good or bad - we become more anxious. Indeed, bottomless uncertainty

is so destabilising that people will pay to avoid it, even if their interest would be better served by waiting, as the Nobel-winning behavioural economist Daniel Kahneman has noted.

Being told upfront that my daughter will go back online in late November, because there will probably be a second wave, has helped us to plan. I suspect it may have been wiser for British schools to do likewise.

The second question about the variation in behavioural patterns is also striking. During my trip to the UK, I was struck by a number of subtle distinctions. In New York today, masks are so ubiquitous that failing to wear one (even while jogging or cycling) has become a major social faux pas. There is a lively culture of outdoor dining and people are gathering for small suppers - helped by the fact that it is easy to get a Covid-19 test. In the UK, by contrast, I found that mask-wearing

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### 'Is there a risk that governments don't look beyond their borders to see what works to contain the pandemic?'

---

was patchily observed and pubs that are open are heaving, while getting a test has been relatively hard, unless you have symptoms.

There also appear to be much higher levels of frustration and confusion around the Covid-19 rules among my friends in the UK than in Manhattan. This may reflect complexities of the three-tier system and the fact that parts of the UK are tightening the rules, while the situation in New York seems relatively stable. However, I suspect it shows something else too. In New York, the focus of debate is often on entrepreneurial adaptation. Hence my daughter's school's two-part pandemic fighting plan, which is designed to keep "customers" - ie parents - happy.

Don't get me wrong: I am not saying that either region has a monopoly on the "right" approach. New Yorkers would envy Britain for even trying to have a national strategy (which is sadly lacking in the US) and for its universal healthcare system. And whatever transatlantic differences exist now, the grim truth is that both regions have performed very badly compared with Asia.

However, the key point is this: as subtle distinctions between local behavioural patterns emerge, policymakers need to watch what other places are doing - and copy ideas that work. One fascinating consequence of Covid-19 is that it has created a plethora of local petri dishes of natural policy experimentation. Somehow - anyhow - we need to learn from each other's experiments about which rules and behavioural "nudges" work best if we are to beat the pandemic, be that with masks or anything else. **17**

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