# WIRED

MARK CUBAN

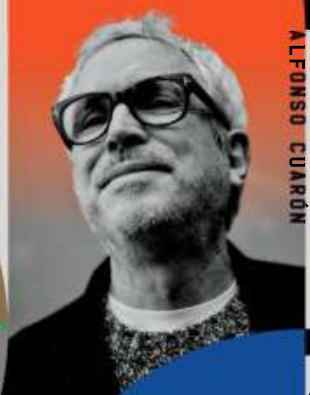
BOBBY ALYHOFF

TRAE STEPHENS

# THE BIG INTERVIEW

On the Record WITH THE Bigwigs AND Geek Gods

JOSH JOHNSON



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# ISSUE


## TIME THE WORLD

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# WHAT'S A BIG INTERVIEW?

## In which WIRED's global editorial director, Katie Drummond, hallucinates.

**WIRED: Hey.**
**Katie:** Hey ... ?

**It's us. The collective consciousness of the WIRED editorial staff, here to help you with an editor's letter introducing the Big Interview issue of our print magazine. And the digital rollout too.**
Is this AI?

**Katie, what's a Big Interview?**
Is it weird that I'm being interviewed by my own publication?

**Hey, you created this monster. Answer the question.**
It's a conversation with someone we—me, and you, who are apparently the collective consciousness of WIRED—care about, think is interesting, and who is in some way shaping our shared future. That doesn't necessarily mean they're a technology executive or a world-famous scientist; these conversations span everything WIRED covers.

HAIR AND MAKEUP: MAUREEN SHERWOOD

In addition to interviewing herself, Katie also interviewed the podcaster Bobbi Althoff (page 76).

**Like what?**
Aren't you WIRED? Don't you know that already? Like the tech industry and science, sure, but also politics, security, celebrity, innovation in its many forms. We cover all of that, and we love getting to know the freaks and geeks and weirdos and rock stars—literal and figurative—who are at the vanguard of creating it.

**The collective consciousness of WIRED would like to remind you that we don't do PR for famous people.**
These interviews aren't PR. They're also not adversarial by definition. And we're not trying to trick anyone into saying something stupid or something newsworthy—although I can't stop them if they do one or both of those things! I like to think WIRED is a pretty thoughtful place, and these are meant to be thoughtful conversations between two people who make sense as a pairing. We want people to come away feeling like they really know the subject of the interview, their hopes and dreams, their deepest fears, what they had for breakfast, and whether they ever hallucinate extended interactions with their employees after taking nitrous oxide at the dentist's office.

**You OK, boss?**
It's been a long year.

**Speaking of the existential stress inherent in running a media business, does anybody even read anymore? On *paper*, no less? Why are we publishing a bunch of interviews when everybody's watching TikToks?**
Some people still read, yes. Good for them. But we're not just publishing the Big Interview series in text anymore. We're also releasing a bunch of these conversations as episodes of a new YouTube series. And we're hosting an entire day-long event in San Francisco this December. Mira Murati is going to be there. So is Jensen Huang. And gold-medal-winning Olympian Phil Wizard.

**Oh, they're all big deals.**
I know.

**So what kind of big-deal interviews did we get for this issue, anyway?**
Didn't one of you commission and edit these interviews?

**Try to play along, Katie, we're having fun here.**
Right, OK. We talked to a bunch of amazing people. We talked to Mark Cuban about his new pharmaceutical "disruption." We talked to Josh Johnson, from *The Daily Show*, about politics and the future of comedy. We talked to Meredith Whittaker, president of the Signal Foundation, about surveillance and AI. That's a great one. We even talked to Secretary of State Antony Blinken about cybersecurity. And there's a bunch more in the magazine and rolling out online in the coming months.

**How exciting. We're looking forward to chatting again in a few months to hear how it all went.**
Will we be ... speaking again?

**Your next dental cleaning is in February. We assume you'll once again be indulging in the nitrous oxide from the dentist's office comfort menu?** After this interaction I'm honestly not so sure.

**Happy editing, boss. Until we meet again.**

# Issue 32.11

p.16

## On the Cover

We asked French graphic studio **My Name Is Wendy** to design the cover for the magazine's Big Interview issue. They neatly stitched together the skillful portraits taken by **Michelle Groskopf** (Mark Cuban), **Shayan Asgharnia** (Bobbi Althoff), **Peyton Fulford** (Trae Stephens), **Tom Cockram** (Alfonso Cuarón), **Dina Litovsky** (Meredith Whittaker), **Matt Eich** (Antony Blinken), and **Brad Ogbonna** (Josh Johnson). **Spiffy, right?**

p.22

p.25

## Start



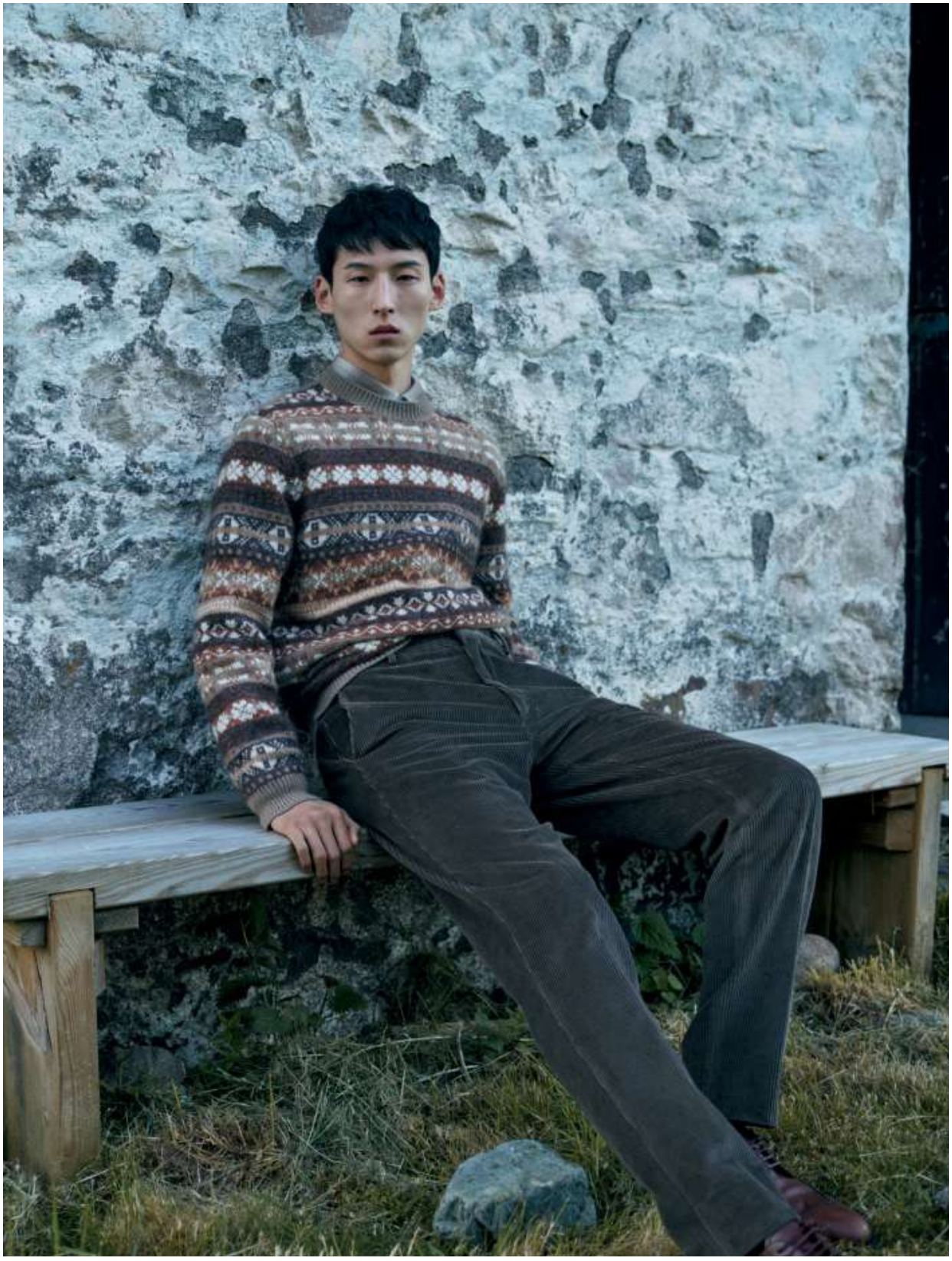
## Gear



## Six-Word Sci-Fi



CLOCKWISE FROM TOP: SAMUEL TOMSON; CHRISTOPHER MITCHELL; JOHANNA GOODMAN



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Loro Piana

# Readers worry about the world and hold forth on hypocrisy.

In our September/October issue, Sandra Upson dug into the controversial research behind an urgent warning: According to two sibling scientists from Denmark, the main current system that churns the Atlantic Ocean could collapse within decades. Lauren Smiley told the story of a gregarious Brazilian immigrant and rideshare fraudster, and Laura Kipnis experimented with a new venture, Rebind, which lets you read classic texts with AI versions of literary superstars.

TONY LUONG

### RE: "THE HOLE IN THE MAP OF THE WORLD"

The words of Susanne Ditlevsen sent a shiver down my spine and reminded me of an important reality when working as a scientist: "It's a gift to be scrutinized."
**—Alex C.**

Even if the tipping point could be nailed down to within a span of a few years, I don't think it would do much good. We won't make the necessary, fundamental changes to the way we do things until our backs are against the proverbial wall. But as Aesop's fable goes, "It is too late to prepare for danger when our enemies are upon us."
**—Richard Stuart**

### RE: "PRISCILA, QUEEN OF THE RIDESHARE MAFIA"

A few years ago, while I was taking an Uber, the Brazilian driver talked to us about how a lot of Ubers had people driving whose faces didn't match their pictures and that we should always check that the driver is who they say they are. He seemed unhappy that people were being dishonest. I bet he was talking about this. I never did end up double-checking my drivers.
**—u/legranarman**

Many years ago I was taught, "If life is too complicated for you, here is a simple rule you can follow: Do right." I think Priscila's rule is equally simple and opposite.
**—Kurt Mershon**

This is possible because America loves and celebrates scam artist culture.
**—@azeemahnakhoda**

Easy to prosecute one woman and her circle. Meanwhile, California agriculture companies hire thousands of illegal immigrants and pay them in cash because they are unbankable. Treated like machines.
**—@gohokomori**

### RE: "I AM LAURA KIPNIS-BOT, AND I WILL MAKE READING SEXY AND TRAGIC AGAIN"

For decades we have been asking for tools to simplify things; now we have them but we fear them. Typical dualists! I plead for being open-minded. Use these resources as needed as long as there's no harm to others.
**—CK**

It builds off of ChatGPT—famously developed using works by authors without the consent of authors. But somehow this piece, celebrating authors and books, doesn't mention the irony?
**—@neilturkewitz**

Excited to see how AI reading companions will spice up our book clubs! Can't wait for Laura Kipnis-Bot to give me some sassy literary analysis.
**—@jvquantum**



### RE: "THE HOLE IN THE MAP OF THE WORLD"

## "How many other tipping points might have been crossed that we don't know about yet?"

**—@postcarbonsteve**


# Discover Lewis

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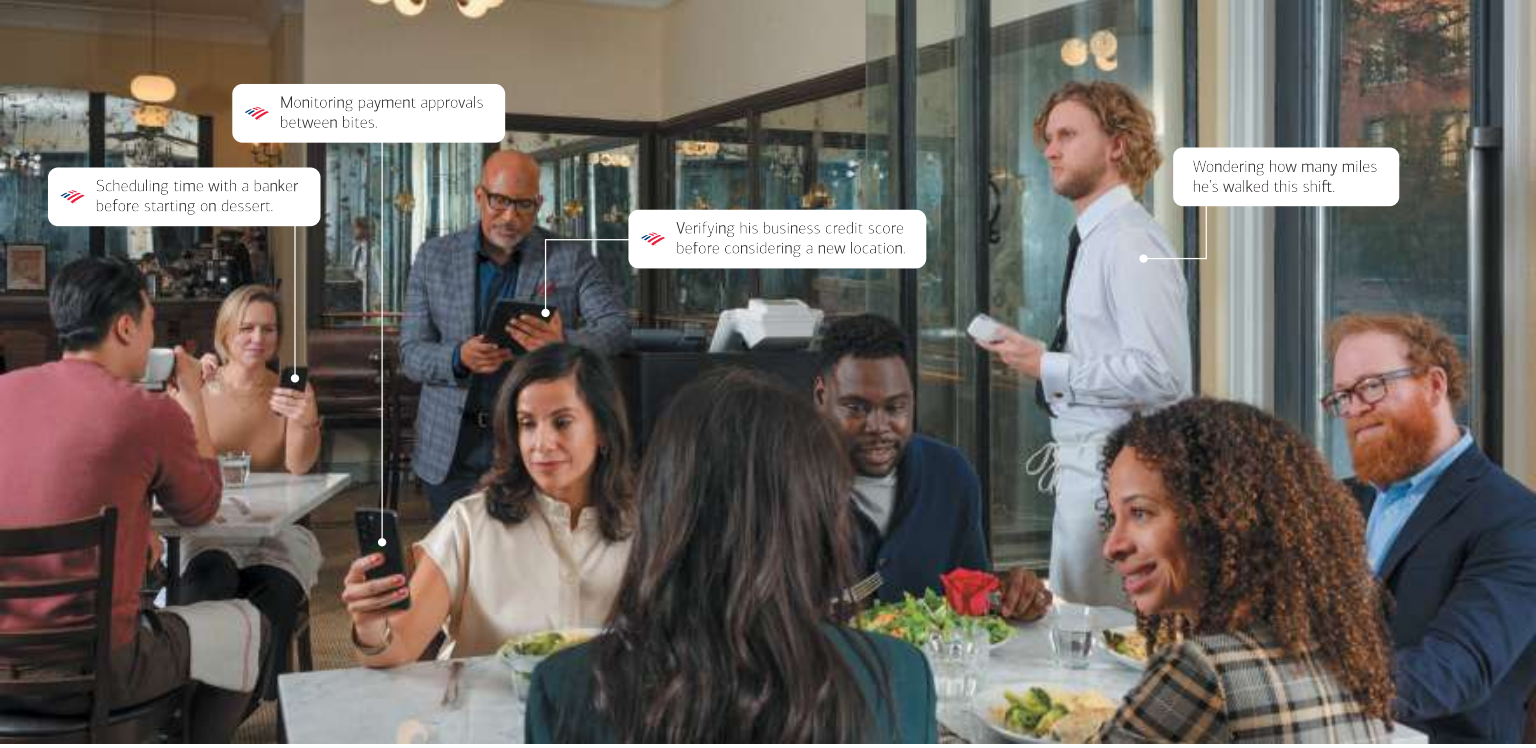


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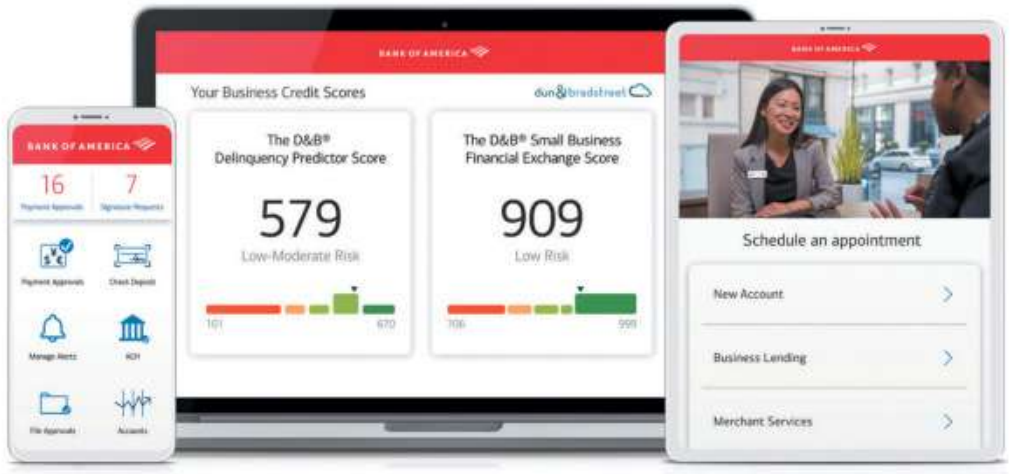


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# INSIDE THE UNCANNY WORLD OF TIKTOK HOME REMODELING

Turn a tree into a luxury apartment. Retrofit a bedroom for a million children. The videos are bizarre—and going very viral. Who's behind them?

# IF

YOU'VE BEEN ON TikTok at any point in the past six months, chances are you've stumbled across them, as I first did during a fairly routine doomscroll one night this summer. For me it started with two videos somewhat incongruously tagged #homeremodeling and #housedesign. One of them featured a CGI man summoning a baby phoenix outside of a tree that he planned to turn into an apartment. Then a robotic AI voice started to narrate how the CGI man, identified as "Little John," was going to build it. Over the next 90 seconds, Little John transformed the tree into a maniacally space-efficient luxury unit in an AI-generated ballet of flying galvanized square steel, ecofriendly wood veneer, and expansion screws.

The other video, featuring nearly identical CGI and the same hypnotically flat AI narrator, followed the story of a couple with a billion children that, like Little John, decided it was time to improve their home. And those two videos were only the tip of the galvanized steel iceberg.

There are hundreds of accounts posting these videos to TikTok right now, and they've become immensely popular, racking up millions of views. Even the "character" of Little John has become a meme of his own, with people making skits where they pretend to be him.

The videos struck me as a fascinating case study of how TikTok trends have evolved—or rather devolved—over time. What was once an app full of human beings making content in conversation with each other has become a dizzying world where irony and sincerity, memes and spam, blur together into a slurry of bizarre content no one is quite sure what to do with. As I set out to discover who was making these videos, I assumed that lifting the rock would reveal an even stranger world of broken social networks, AI content farms, and shady engagement hacks, wiggling just beneath the surface of the web. Which it did! But stranger still, in the end, it turned out these videos hadn't become huge as a TikTok trend at all.

IN 2022, AN account popped up on TikTok called @designer_bob. From the start, it exclusively posted videos with a specific format: Some kind of weird domestic issue must be solved with extreme home renovation, the action animated in a surreal CGI style with a spunky stock music soundtrack. Within a month, the account had a viral hit: a video about designing a bedroom for four children, which has been viewed more than 10 million times.

Designer Bob's formula proved perfect for TikTok's algorithm, which is constantly analyzing, in microseconds, what catches your attention and recalibrating to what it thinks you want to watch. There's a hypnotic quality to these videos. "The storyline is just fucked up enough to grab your attention early on," says social media analyst Rachel Karten. And because there's a process happening—a home renovation—the user can't look away.

Once Designer Bob's videos started going viral, hundreds of other accounts started posting similar content. One account called @dy02449xjp, which had been sharing clips from 2000s romcoms like *The Proposal* and *Two Weeks Notice*, switched over to weird home renovations in January 2024. That same month, one of their videos went exceptionally viral. It's been watched more than 44 million times.

Along the way, the aesthetic and style of these videos started to change. The early viral renovation videos from Designer Bob were silly but could sometimes be mistaken for genuine design content. Newer videos were more ludicrous, the renovations more fantastical, their action narrated by a droning AI voice. That's just the way TikTok's remix culture works, says Alex Turvy, who studies digital culture.

"We're going to see trends like this become more and more absurd until they burn out," he says.

There's even a spin-off meme specifically about "galvanized square steel," to the point where some users have questioned whether the whole meme is a viral marketing campaign for galvanized steel.

"I think *lore* is a really good word to use here. Now the videos blow up and do well *because* there is lore around them," Karten says. "Lore sustains virality."

The more I watched these videos, the more desperate I was to understand who was making them. In the case of Designer Bob, the account bio links to an online candle and crystal store run by a company based in China called Whisper Wisp. And the Designer Bob Facebook page lists Hong Kong as a base on the Page Transparency section. Still, it seems →

**Before this summer, no one seemed to know where these videos were coming from.**


BASED ON THE STORY FROM
VANITY FAIR
HBO ORIGINAL
BREATH OF FIRE
TO BE A GOD
ALL YOU NEED
IS A FOLLOWING
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unlikely this is a covert marketing campaign for a candle shop. None of Whisper Wisp's social channels are nearly as popular as the Designer Bob account. (Whisper Wisp didn't respond to any of my messages.)

Details about who's behind the Dy02449xjp account are even more scarce. There is a Facebook page with the same username sharing the same videos. Beyond that, nothing. No other connected accounts, no storefronts or identifying information. If there's a scam or an upsell coming, it hasn't dropped yet. For now, at least, Dy02449xjp appears to be pursuing TikTok engagement for its own sake.

Many of these accounts use some variation of the name "Home Designs" and similar logos of a small house, which strongly resemble the branding of an architecture and interior design program called HomeDesignsAI—a major clue, I thought, toward solving the mystery. I was able to track down HomeDesignsAI's COO and cofounder, Denis Madroane. But he was just as confused as everyone else about how popular these renovation TikToks have become.

HomeDesignsAI is a Romania-based startup that launched in 2023. The app allows users to upload a photo of a room or floor plan and transform it using AI. Madroane says he started seeing TikToks that used HomeDesignsAI last year. He says he and his team thought they were pretty funny—but they're not seeing much upside.

Madroane confirmed that HomeDesignsAI does have a TikTok account, though it doesn't really participate in the memes. It has a little under 900 followers, and its biggest video has around 195,000 views. Which seems fine—until you compare it to the unofficial HomeDesignsAI accounts on TikTok. The biggest one, @homedesign369, has 2.3 million followers and is consistently getting millions of views per video.

"Our official account is severely underperforming compared to the numbers averaged by user-generated content," Madroane concedes.

But as it turns out, none of the most viral Little John TikToks were made using HomeDesignsAI software. So, mystery unsolved. And before this summer, no one on TikTok seemed to know where these videos were coming from. That is, until Candise Lin, a Cantonese and Mandarin tutor based in the US, noticed the trend going viral and revealed the missing piece of the puzzle—at least for confused Americans—in a TikTok video of her own.

| EXPIRED | TIRED | WIRED |
|---|---|---|
| Fluid dynamics | Electromagnetism | Magnetohydrodynamics |
| Using OpenAI | Suing OpenAI | Partnering with OpenAI |
| Lost in space | Stuck in space | Hyperspace |
| Slutty summer | Brat summer | Fall |
| Chum | Slop | Goo |

It turns out we haven't actually been watching videos made by TikTok users. They're coming from a completely different app. As Lin explains, these videos come from Bilibili, China's closest equivalent to YouTube. On Bilibili, Little John is known as 大壮, or Big John. "Galvanized steel" is even a trending search term. According to Lin, there are two Bilibili users known for creating this kind of content, an account called 疯狂设计家, or Crazy Designer, and another called 设计师王姨, or Designer Aunt Wang. I was able to find dozens of other accounts, as well.

The unhinged home renovation videos on TikTok are machine-translated versions of videos from Bilibili. Chinese content makes the jump across the Great Firewall like this fairly often. Videos downloaded from TikTok's sister app Douyin are a regular presence on TikTok. But the fact that these were not made for English-speaking audiences would explain the robotic narrator, bizarre syntax, and Chinese iconography seen throughout.

After digging through Crazy Designer's videos, I was able to find one of the videos I had come across on TikTok back in June, about a couple designing a house for a billion children. Crazy Designer titled it "One Billion Children per Room," and it's part of a series, all with titles like "A Million Children per Room," "Two Million Children per Room," and so on. After watching it on Bilibili and reading the comments underneath it, I started to realize what these videos are: They're shitposts. This jaundiced real-estate porn is meant to satirize the housing crunch in cities like Hong Kong and Shanghai, and the commenters are all in on the joke.

In the end, it appears there isn't any kind of scam or engineered marketing stunt here after all. It's just two cultures laughing at the same uncanny user-generated content, filtered through some perfunctory layers of AI translation and lost context. And according to Lin, Bilibili users are now aware of how popular Little John videos have become in the West. They're mortified that Americans are watching.

**RYAN BRODERICK** *is a journalist based in Brooklyn. He writes a newsletter about internet culture and technology called* Garbage Day.


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# WAIT, GO BACK

**To mature as programmers, newer generations need to take a lesson from Google's programming language.**

MANY OF TODAY'S programmers—excuse me, *software engineers*—consider themselves "creatives." Artists of a sort. They are given to ostentatious personal websites with cleverly hidden Easter eggs and parallax scrolling; they confer upon themselves multihyphenate job titles ("ex-Amazon-engineer-investor-author") and crowd their laptops with identity-signaling vinyl stickers. Some regard themselves as literary sophisticates. Consider the references smashed into certain product names: Apache Kafka, ScyllaDB, Claude 3.5 Sonnet.

Much of that, I admit, applies to me. The difference is I'm a tad short on talents to hyphenate, and my toy projects—with names like "Nabokov" (I know, I know)—are better off staying on my laptop. I entered this world pretty much the moment software engineering overtook banking as the most reviled profession. There's a lot of hatred, and self-hatred, to contend with.

Perhaps this is why I see the ethos behind the programming language Go as both a rebuke and a potential corrective to my generation of strivers. Its creators hail from an era when programmers had smaller egos and fewer commercial ambitions, and it is, for my money, the premier general-purpose language of the new millennium—not the best at any one thing, but nearly the best at nearly everything. A model for our flashy times.

IF I WERE to categorize programming languages like art movements, there would be mid-century utilitarianism (Fortran, COBOL), high-theory formalism (Haskell, Agda), Americorporate pragmatism (C#, Java), grassroots communitarianism (Python, Ruby), and esoteric hedonism (Befunge, Brainfuck). And I'd say Go, often described as "C for the 21st century," represents neoclassicism: not so much a revolution as a throwback.

Back in 2007, three programmers at Google came together around the shared sense that standard languages like C++ and Java had become hard to use and poorly adapted to the current, more cloud-oriented computing environment. One was Ken Thompson, →

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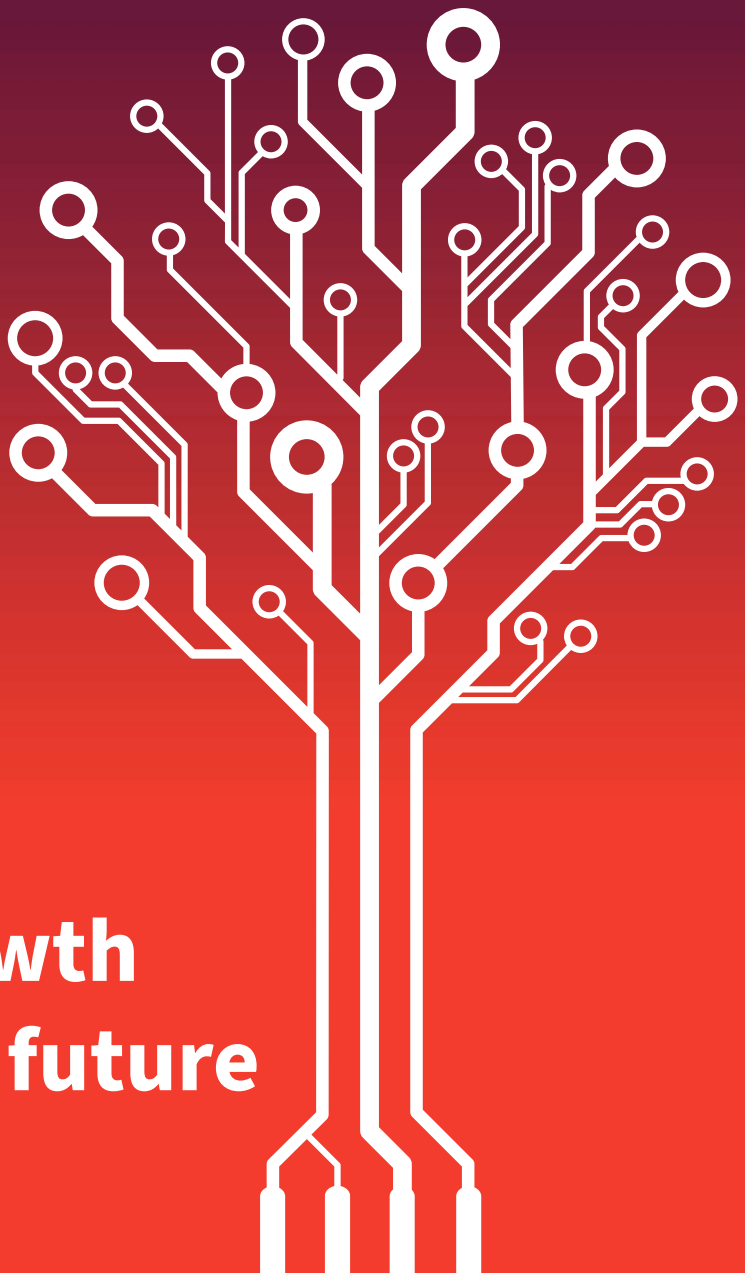

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formerly of Bell Labs and a recipient of the Turing Award for his work on Unix, the mitochondrial Eve of operating systems. (These days, OS people don't mess with programming languages—doing both is akin to an Olympic high jumper also qualifying for the marathon.) Joining him was Rob Pike, another Bell Labs alum who, along with Thompson, created the Unicode encoding standard UTF-8. You can thank them for your emoji.

Watching these doyens of programming create Go was like seeing Scorsese, De Niro, and Pesci reunite for *The Irishman.* Even its flippantly SEO-unfriendly name could be forgiven. I mean, the sheer chutzpah of it. A move only the reigning search engine king would dare.

The language quickly gained traction. The prestige of Google must've helped, but I assume there was an unmet hunger for novelty. By 2009, the year of Go's debut, the youngest of mainstream languages were mostly still from 1995—a true annus mirabilis, when Ruby, PHP, Java, and JavaScript all came out.

It wasn't that advancements in programming language design had stalled. Language designers are a magnificently brainy bunch, many with a reformist zeal for dislodging the status quo. But what they end up building can sometimes resemble a starchitect's high-design marvel that turns out to have drainage problems. Most new languages never overcome basic performance issues.

But from the get-go, Go was (sorry) ready to go. I once wrote a small search engine in Python for sifting through my notes and documents, but it was unusably sluggish. Rewritten in Go, my pitiful serpent grew wings and took off, running 30 times faster. As some astute readers might have guessed, this program was my "Nabokov."

THIS IS NOT to say that Go is a perfect language. It's more workhorse than show horse. And it came out 15 years ago, enough time for a stream of breakup stories and critiques to cycle through the industry's paper of record, Hacker News.

To wit: Many find Go code ugly. There's a procrustean uniformity to it, and it lacks the tidy shorthands of, say, Ruby or Python, so even common patterns can become messy and cluttered. (Ask a Go programmer about "error handling.") Also, you can't run the code, even with correct syntax, unless certain styles are strictly followed. Imagine a word processor that does not allow you to save unless your essay is free of grammatical errors.

I'm happy to admit that Go lacks the ergonomics of newer languages. But I struggle to dispel the suspicion that these are the complaints of a spoiled era. If the chief engineer of the first-generation Ford Mustang were tasked with designing a new line of cars, and did so remarkably—models of practicality and workmanship—would you complain about them having no touchscreens?

It's odd to think how young the field of computer science is. Alan Turing's paper that launched the field is less than a century old, and we live in a small window of time where pioneers are alive and professionally active, even into their eighties. Go is a language created by people who had nothing left to prove.

I HOPE IT isn't too contrived to speak of a "late style" in programming. The idea is usually attributed to the German philosopher Theodor Adorno, who observed a growing contradiction and alienation in Beethoven's later work. The literary critic Edward Said expanded on the notion in his posthumous book *On Late Style*, discussing how some artists, when facing impending mortality, reject traditional artistic closure and instead embrace fragmentation and unresolved tension.

What I find more intriguing—and rarer than we might have thought—are the cases where masters in their later years *do* accept a certain closure and, as Said put it, maintain a "spirit of reconciliation and serenity." Social media has provided us with the disappointing yet sobering spectacle wherein supposedly accomplished individuals—since we're talking technology here, certain computer scientists in AI who shall remain nameless come to mind—regularly engage in unseemly reckonings with their residual baggage.

But when I think about Go, I feel a sense of serenity. Instead of involving themselves in spats with young kvetchers, the Go team directs you to their FAQ page—the gold standard of FAQ pages—written in a gentle, statesmanlike tone. And with that, they rest their case. I suppose that's where some people do end up: completely, even plainly, at ease with their work. To know it's possible, someday, perhaps, is a balm. Maybe my generation will learn to tame our egos and find our footing. We still have a few decades to make it so.

**SHEON HAN** *is a writer and programmer based in Palo Alto, California.*

## Readout

The world, quantified.

# 50M

Metric tons of copper expected to be needed by 2035 to sustain the green energy economy. That's about double the demand today. In a 2022 report, Goldman Sachs referred to copper as "the new oil."

# 2.9B

Records, including emails and Social Security numbers, that were leaked via a data breach in early 2024. The information, from people across the US, UK, and Canada, was being auctioned for up to $3.5 million.

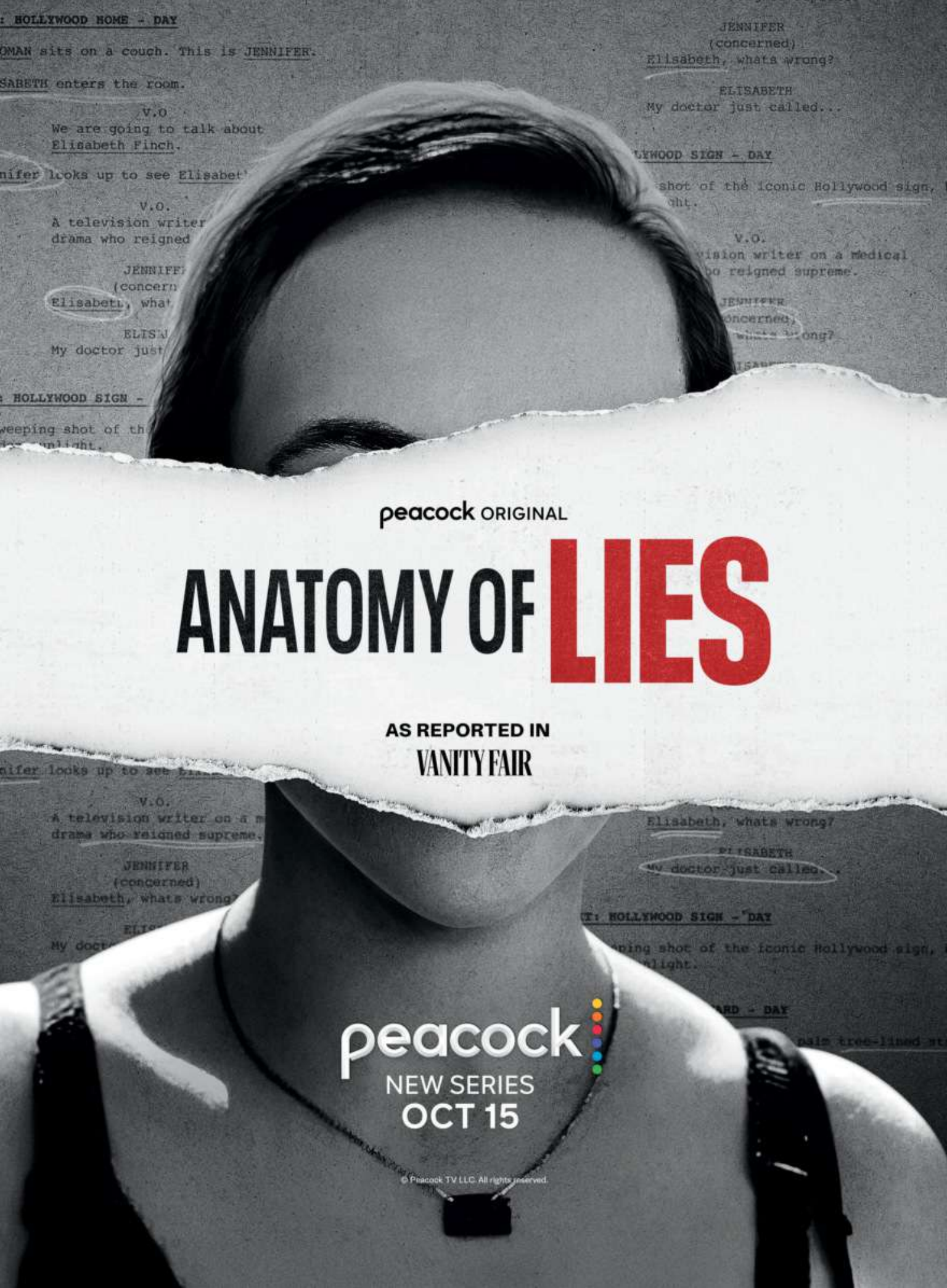
# 13%

Worldwide stock levels of available pants for midshipmen in the US Navy, which, because of a vendor issue, has encountered a "severe shortage." The backlog for fresh trousers is expected to last until next year.

# 10,420

NFTs of remixes to the track "This Song Is a Security" that musician Jonathan Mann wants to sell. The sale is being blocked by the SEC, and Mann is suing the agency over its interpretation of crypto asset securities.

READOUT SOURCES: NATIONAL PUBLIC DATA; S&P GLOBAL; UNITED STATES NAVY; MORRISON COHEN LLP
READOUT ILLUSTRATION: JACQUI VANLIEW; GETTY IMAGES

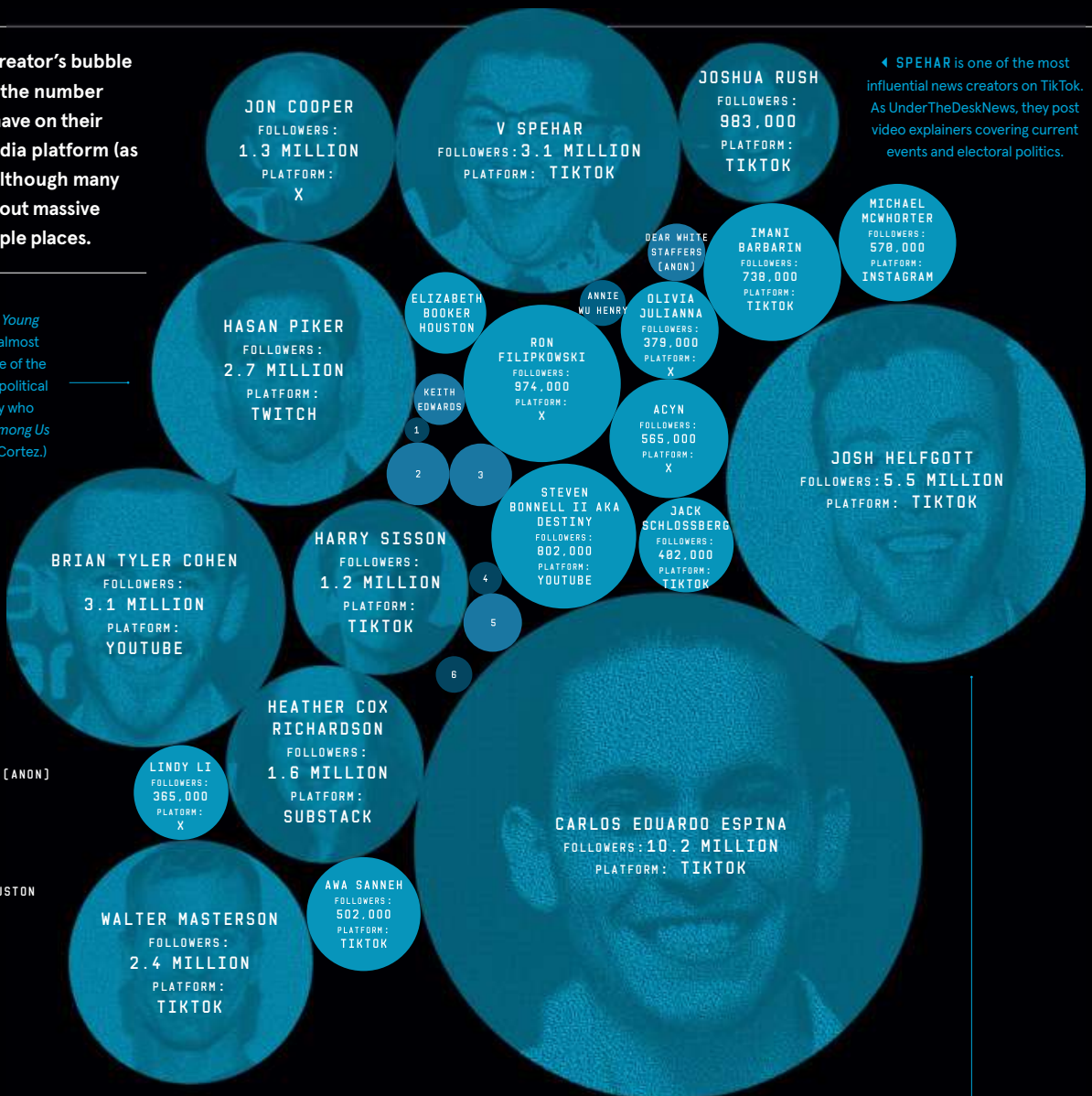


BY MAKENA KELLY

# THE INFLUENCE MACHINE

THROUGHOUT THE 2024 US ELECTION, internet influencers have been fixtures at political fundraisers, party conventions, and rallies, sharing what it's like to their millions of followers. They're tastemakers and meme sharers; they also wield significant power by encouraging their followers to vote. ¶ So WIRED created a visual guide to some of the most significant creators on the left and the right, from micro influencers to billionaires like Elon Musk. Their posts drive news cycles and inspire action. The candidates show up on their podcasts and in their memes. These influencers have changed how we experience politics online. ¶ The full, interactive version of our guide can be found on WIRED.com.

**The size of each creator's bubble corresponds with the number of followers they have on their primary social media platform (as of August 2024), although many of these creators tout massive audiences in multiple places.**




A former host with *The Young Turks*, PIKER streams almost daily on Twitch and is one of the platform's most popular political creators. (He's the guy who played the video game *Among Us* with Alexandria Ocasio-Cortez.)

◂ SPEHAR is one of the most influential news creators on TikTok. As UnderTheDeskNews, they post video explainers covering current events and electoral politics.

DEAR WHITE STAFFERS [ANON]
FOLLOWERS: 132,000
PLATFORM: INSTAGRAM

ANNIE WU HENRY
FOLLOWERS: 83,600
PLATFORM: INSTAGRAM

ELIZABETH BOOKER HOUSTON
FOLLOWERS: 286,000
PLATFORM: TIKTOK

KEITH EDWARDS
FOLLOWERS: 104,000
PLATFORM: INSTAGRAM

1 HOWDYPOLITICS
FOLLOWERS: 25,100
PLATFORM: INSTAGRAM

2 EMILY AMICK
FOLLOWERS: 155,000
PLATFORM: INSTAGRAM

3 LEIGH MCGOWAN
FOLLOWERS: 156,000
PLATFORM: INSTAGRAM

4 ORGANIZERMEMES [ANON]
FOLLOWERS: 42,500
PLATFORM: X

5 JOVAN BRADLEY
FOLLOWERS: 132,000
PLATFORM: INSTAGRAM

6 MALYNDA HALE
FOLLOWERS: 53,700
PLATFORM: INSTAGRAM

ESPINA is a TikTokker and immigrant rights activist whom The New York Times referred to as a "one-man Telemundo."

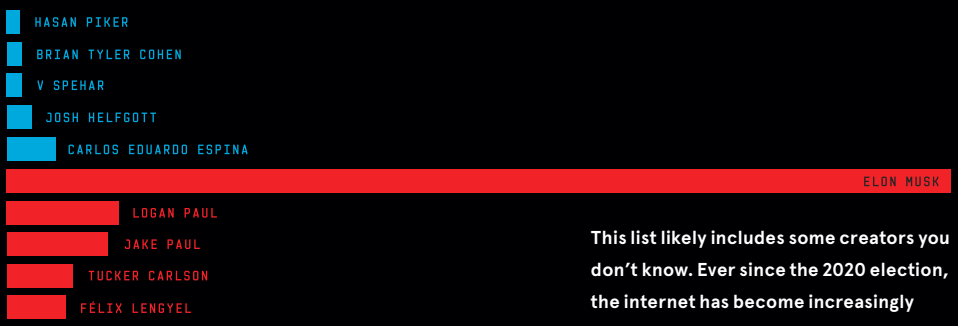
If you've seen the phrase "gay news" pop up on TikTok, you've watched HELFGOTT'S videos. He breaks down stories related to LGBTQ+ rights.

**MAKENA KELLY** *is a senior writer at* WIRED *focused on power, politics, and technology.*

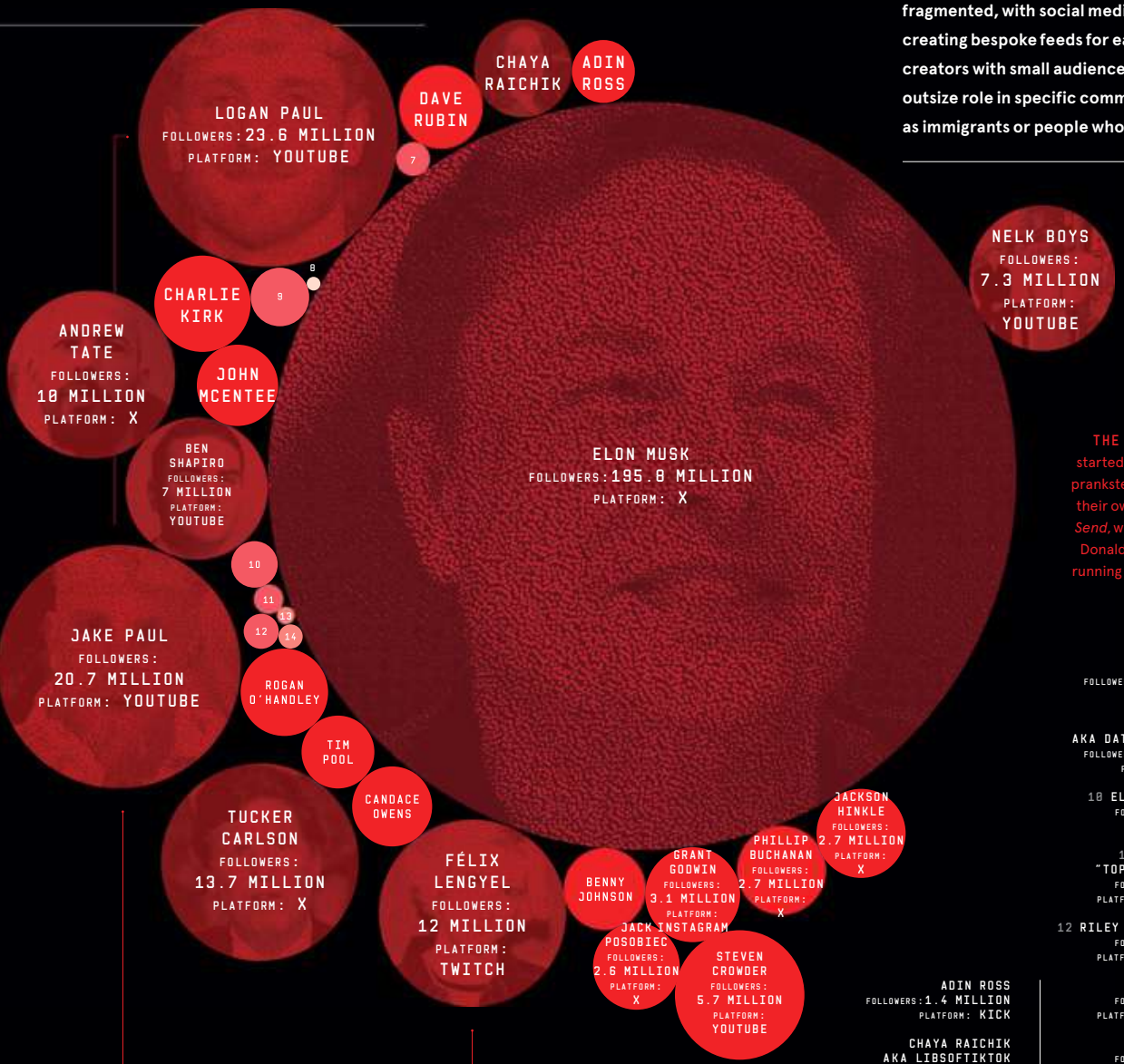
GETTY IMAGES; YUVRAJ KHANNA/REDUX (SISSON)

## Numbers Game

**The biggest influencers on the right include some older, successful entrepreneurs like Musk and mainstream conservative media figures like Tucker Carlson.**




**This list likely includes some creators you don't know. Ever since the 2020 election, the internet has become increasingly fragmented, with social media algorithms creating bespoke feeds for each user. Even creators with small audiences can play an outsize role in specific communities, such as immigrants or people who are disabled.**




**THE NELK BOYS** started out as YouTube pranksters but now have their own podcast, *Full Send*, which has hosted Donald Trump and his running mate, JD Vance.

**LOGAN PAUL**, along with his brother **JAKE**, got his start on Vine before transitioning to YouTube. He's also a pro wrestler. Paul hosted Donald Trump on his *Impaulsive* podcast in June 2024.

Also known as **XQC**, **LENGYEL** is a streamer and a former pro *Overwatch* player. He appeared in Adin Ross' August 2024 livestream with Donald Trump at Mar-a-Lago.

CHARLIE KIRK
FOLLOWERS: 3.3 MILLION
PLATFORM: X

JOHN MCENTEE
AKA DATE RIGHT STUFF
FOLLOWERS: 3.1 MILLION
PLATFORM: TIKTOK

10 ELIJAH SCHAFFER
FOLLOWERS: 743,500
PLATFORM: X

11 CHRISTOPHER "TOPHER" TOWNSEND
FOLLOWERS: 308,000
PLATFORM: INSTAGRAM

12 RILEY GAINES BARKER
FOLLOWERS: 431,000
PLATFORM: INSTAGRAM

13 DEBRA LEA
FOLLOWERS: 108,000
PLATFORM: INSTAGRAM

14 CJ PEARSON
FOLLOWERS: 208,000
PLATFORM: INSTAGRAM

ROGAN O'HANDLEY
AKA DCDRAINO
FOLLOWERS: 2.8 MILLION
PLATFORM: INSTAGRAM

TIM POOL
FOLLOWERS: 1.8 MILLION
PLATFORM: YOUTUBE

CANDACE OWENS
FOLLOWERS: 2.3 MILLION
PLATFORM: YOUTUBE

BENNY JOHNSON
FOLLOWERS: 2.3 MILLION
PLATFORM: YOUTUBE

ADIN ROSS
FOLLOWERS: 1.4 MILLION
PLATFORM: KICK

CHAYA RAICHIK
AKA LIBSOFTIKTOK
FOLLOWERS: 3.4 MILLION
PLATFORM: X

DAVE RUBIN
FOLLOWERS: 2.4 MILLION
PLATFORM: YOUTUBE

7 NICK FUENTES
FOLLOWERS: 394,000
PLATFORM: X

8 ISABEL BROWN
FOLLOWERS: 60,000
PLATFORM: YOUTUBE

9 JESSICA REED KRAUS
FOLLOWERS: 1.3 MILLION
PLATFORM: INSTAGRAM

# A FULL-TERM GIG

Hiring someone to carry your baby to term is a booming business. The market for surrogacy is expected to expand to $129 billion by 2032, fueled by older parents, rising infertility, and more same-sex families. Silicon Valley contributes to the growth too: Tech companies like Google, Meta, and Snap pitch in up to $80,000 toward the six-figure cost of the process. ¶ Yet it's still controversial to "rent a womb" (as detractors call it). One human rights expert for the United Nations said that commercial surrogacy "usually amounts to the sale of children." Critics claim the practice exploits poor women who are not fully informed of the hazards; in fact, the United States is one of the only developed countries that allows pregnancy for profit. ¶ The stereotypical gestational carrier is a stay-at-home mom who wants to earn income without leaving her kids. Many surrogates do fit that mold, but backgrounds and experiences vary greatly. One West Coast surrogate who has carried two sets of twins for parents in California and China opens up about what it's been like for her.

IN 2010, MY best friend died of an accidental overdose, and I found his body a few days later. After that trauma, I went through a long period of examining my purpose. As a mother, I thought it would be really cool if I could give other people their reason for getting up in the morning. I also loved being pregnant: Surrogacy sounded like the world's greatest part-time job.

I went through rigorous physical and psychological testing. Then I read tons of files from intended parents, waiting for that "click." Finally, I met an older, single guy—let's call him Greg. As a queer woman, I felt a strong community obligation to make babies for the gays. Surrogacy can be more accessible than adoption for some people. Greg told me, "I'm an older, gay, single dad. Do you know how hard it would be for me to adopt an infant?"

The doctor transferred three embryos into my uterus, hoping for one, but we got all three. For 13 weeks, literally all I did was eat, sleep, and grow humans. I was healthy, but because of the risks to the babies, Dave ultimately decided to reduce the triplets down to twins.

My doctor made me labor in the operating room in case something went haywire, but I delivered both twins vaginally. Twenty minutes after pushing them out, I got up off the table, walked to the bed, and asked for a sandwich.

A few years later, an agency reached out and told me a couple in China were offering Scrooge McDuck buckets of money. I had student loans, so that pregnancy was purely a monetary decision. It's become very popular to have surrogacy done in the US, because the babies are automatically citizens. The Chinese couple had specifically sex-selected for

ILLUSTRATION BY JOHANNA GOODMAN

GETTY IMAGES

girls, which was cool. Those twins were naturally a little smaller, so I didn't feel like I was schlepping giant Clydesdale babies around. The parents also asked me to give birth on a certain day since it was lucky. I was like, "Fine, whatever you want. I'm just going to be eating croissants."

For the six weeks after birth, I would drop off pumped breast milk and see the babies. The family made me fresh dumplings. It was a very nice situation. I still get pictures of the girls.

I happened to be a professional dominatrix for 18 years. I suspect that having a very good grasp on boundaries and consent in my private life has translated into my professional life. It makes it easier to be able to say no. My medical autonomy is very important to me. These are your children, but this is my body, and I'm going to make the decisions that are best for everyone involved. It's also important to me to choose how I labor and choose my own doctor. I heard of one surrogate whose intended parents didn't want her to have any pain management during delivery. That's a no for me, dog. Give me that sweet epidural.

If something is important to you, you need to put it in the contract. I knew a surrogate whose family asked if she'd keep kosher while pregnant. Others want the surrogate to eat only organic. If you agree to something and then don't do it, the intended parents can sue for breach of contract. If I violated my agreement, it specified that I'd be on the hook for about $50,000—about $20,000 more than I was being paid.

Being a surrogate is like being a super-intensive nanny: You absolutely can care about the kids, but they're not yours. When you're pregnant with your own, you're dreaming about them and naming them and nesting for them. With surrogacy, it's not the same. I love getting pictures of the twins, but I'm not in love with them.

I often get asked, "Is surrogacy exploitative?" Usually young women ask this, in a very snide way. I have to gently explain that I was paid for a service. I was paid very well. I was treated fairly, so I don't feel exploited at all. Other people's experiences can be different, of course.

People grossly undervalue the physical effort it takes to carry a baby. They think, "You just gain a little weight and then you pop out a kid." No: People die all the time in childbirth. So understand that a surrogate is putting themselves in a dangerous medical situation to help other people. And I think it's fair that they are compensated for that risk.

*As told to* **EMI NIETFELD**, *a journalist who covers fertility technology and is the author of* Acceptance: A Memoir.

J.P.Morgan x WIRED

# PAYMENTS UNBOUND

A BI-ANNUAL MAGAZINE GUIDING YOU THROUGH THE FUTURE OF MONEY


From the video game industry leveling up, to the battle against next-gen fraud, you'll learn how payments technologies are transforming businesses around the world in our latest issue.

*SCAN TO READ ON APPLE NEWS+*

# WISH LIST 2024

GEAR OF THE YEAR - WISH LIST - THE WIRED 2024

**EAT C-DUR CONCRETE TURNTABLE**

New from European Audio Team, a subsidiary of Pro-Ject, the C-Dur Concrete Turntable puts a spin (see what we did there) on the usual cedar-based stalwart by swapping the wood for a hefty chassis made of solid concrete. The hand-cast unit weighs 70 pounds, and as well as bringing serious brutalist vibes, its high density and mass provide exceptional damping capabilities, virtually eliminating unwanted vibrations. The aluminum platter is driven by an ultralow-noise synchronous motor. Flush-fitted aluminum buttons with integrated status LEDs maximize the minimalism. $8,300

Edited by **Jeremy White**

Words by **Chris Haslam**

Photographs by **Christopher Mitchell** and **Rob Williamson**

# HAT TRICK

### VENTETE AH-1 HELMET

Made in Switzerland, the Ventete aH-1 is an ingeniously engineered inflatable bike helmet that can be folded down to 10 percent of full size when not needed, taking up not much more space in your pack than a laptop. The pneumatic structural system—made from a triple-layered, tear-resistant nylon—inflates in less than 30 seconds using the Fumpa mini electric pump, which can also inflate your bike tires. The helmet weighs 16 ounces (the pump adds 6.7 ounces) and has fiberglass ribs between each section, plus Rheon padding to protect your noggin from brain-scrambling rotational impact forces. **$461**

01

## KATHMANDU FEATHER FLIGHT CARRY-ON TROLLEY

If you're looking to travel as light as possible, this wheeled carry-on is impossible to beat—though if you have a penchant for carrying bullion, the weight gains won't count for much. With a whopping 10.5-gallon capacity, the design weighs just 3 pounds, 8 ounces. The secret is a combination of recycled ripstop nylon and ultrahigh-molecular-weight polyethylene for durability, and a triangular lattice exoskeleton frame. **$238**

02

## NOMAD APPLE WATCH EDITION 65W POWER ADAPTER

The Apple Watch remains the most popular wearable on Earth. But unlike a Garmin Fenix Pro, which can last weeks between charges, the meager battery life from Apple means you need a charger wherever you go. Nomad's delightfully practical solution is a svelte 65-watt AC power adapter with dual USB-C PD ports and MacBook charging capacity, plus a built-in MFi puck on which to perch your flagging watch. **$100**



05

03

## MIEE FRAME CLOCK

Designed by JC Kim and available exclusively at the MoMA Design Store, this 8.25 x 9.65-inch minimalist clock is available in two bold colors and can be surface- or wall-mounted. Since it has unlabeled hour and minute markers, it can sit vertically or horizontally. Made using plastic, colored paper, and steel, it has a silent battery-powered mechanism and can slip seamlessly alongside traditional picture frames to remind us all that being punctual is, in itself, a true art form. **$99**

04

## PETITE FRITURE QUASAR PORTABLE LAMP

The combination of cheaper, better, rechargeable batteries and great quality, low-energy LED bulbs has transformed portable home lighting. The Quasar, from French designer Samy Rio, is an exemplar. The 10-inch-tall powder-coated aluminum design, complete with on-trend climbing-rope carry handle, casts a subtle downward glow in three intensities, with a battery life of between six and 12 hours. **$299**

05

## PENTAX 17 FILM CAMERA

Film cameras are having a moment as today's hipsters discover the artistic possibilities. Pentax has gone beyond retro eBay finds and cheap disposables to launch a gorgeous, manual-winding, half-frame 35-mm camera—meaning you get two portrait images per frame, doubling the shots on a roll. There's a selectable zone-focus system, ISO adjustments, and a selection of retro-inspired modes to create the bokeh, blurry, or just "accidentally cool" pics of yesteryear. **$499**

CHRISTOPHER MITCHELL (HELMET); COURTESY OF: KATHMANDU, NOMAD, MOMA, PETITE FRITURE, PENTAX (OTHER IMAGES)

06

## SCALEXTRIC JOHN WICK FORD MUSTANG BOSS 429

It won't set any slot-car speed records—that belongs to a Honda F1 replica that clocked 983.88 scale mph in 2008—but bringing Baba Yaga's iconic 1969 Ford Mustang Boss 429 to the race is sure to put your opponents on the back foot. Part of a fun range of classic Scalextric cars, John Wick's car is ready to race. Just like the movie plots, it's entertaining despite going around in circles. **$65**

07

## FATBOY DRINKS TROLLEY

The Dutch outdoor brand Fatboy has come a long way since it reinvented the bean bag. It now offers an enviable collection of stylish and practical pieces ideal for inside/outside living. Our pick is this adorable trolley. Made to be impervious to bad weather, its aluminum build is powder-coated to prevent rust, while the built-in dimmable 70-lumen LED lamp charges via USB-C. Load it up with booze and let the good times roll. **$899**

08

## HELINOX CHAIR ONE

When it comes to picking the lightest and most versatile camping chair, there are two real choices: the ground or a Helinox One. Helinox has bravely updated the One for spring 2025. It's a little heavier but has a new tension line for vastly improved weight distribution, sits 30 percent higher off the ground, and uses recycled Bluesign 600D fabrics. The DAC aluminum poles used for the frame now create 30 percent less waste during manufacturing. **$100**

09

## CAMBRIDGE AUDIO EVO ONE

The most impressive all-in-one home audio unit we've tested in a while, this 14-driver block of aural brilliance has real walnut veneer and an aluminum and recycled plastic chassis. At 26.6 x 5.1 x 11.4 inches, it demands plenty of real estate, but it's worth finding space; the 700 watts of Class D amplification blasts out house-party levels of power. There's Wi-Fi and Bluetooth, plus support for just about every streaming service, hi-res or otherwise. **$1,499**

10

## BMW CE 02 X VAGABUND

BMW's motorbike division has partnered with design collective Vagabund to create an achingly hip version of BMW's youth-focused city rambler. The two 48-volt batteries give it a range of only 56 miles, but fast charging means you can boost your range over lunch. Vagabund has added a two-tone paint job, white rims, and the ability to strap a Teenage Engineering Bluetooth speaker to the pannier racks. **$7,599**


COURTESY OF URBAN ARROW, FORD, FATBOY, HELINOX, CAMBRIDGE AUDIO, BMW

# CITY HAUL

- WISH LIST - THE WIRED 2024 GEAR OF THE YEAR -

## URBAN ARROW BIKE

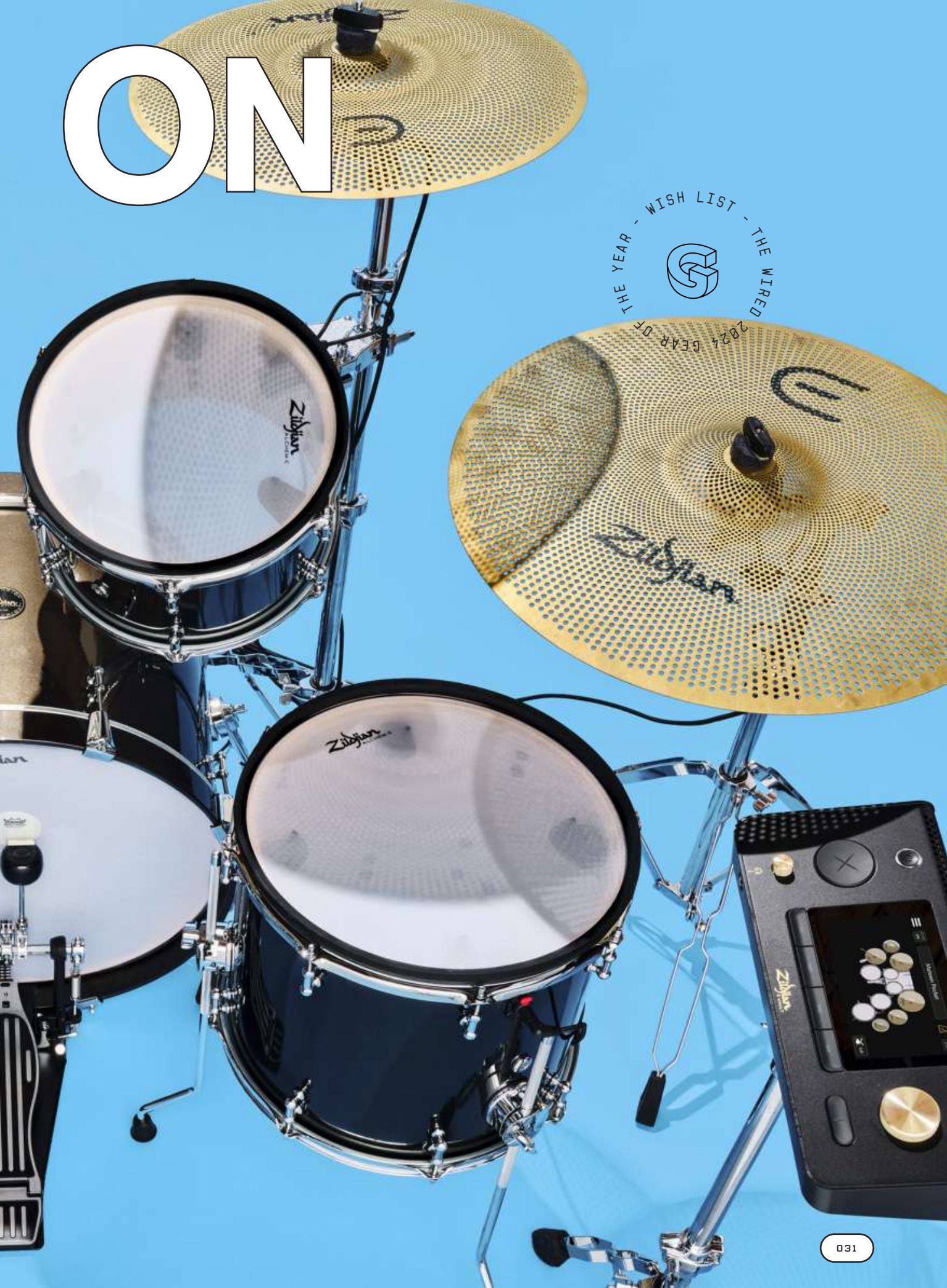
An update to the Very Best Cargo Bike WIRED has tested, this premium family cruiser features a powerful Bosch Cargo Line Gen4 85-Nm motor, Bosch KIOX 300 control screen, and 545-watt-hour smart battery system to take the struggle out of hill climbs with kids in the front bucket seats and on the optional rear bench seat. As with previous models, the ability to downshift even at a standstill makes moving a heavy payload much easier. But the major upgrade here is the inclusion of a Suntour Mobie 34 CGO front suspension fork that smooths out the ride and improves comfort for all your human cargo. **$6,999 AND UP**

# BANG


**ZILDJIAN ALCHEM-E GOLD EX DRUM KIT**

Electronic drum kits are typically let down by poor sounding (and feeling) rubber cymbals, but Zildjian's Alchem-E kit changes that. The E-Family cymbals come in traditional sizes, look the part, and can be played in three zones—bell, bow, and edge. You can even "choke" them (stop with your hands) just like the real thing. The E-Vault module, the "brain" of the kit, gives access to Zildjian's vast collection of percussive sounds. And because the drums are made of proper seven-ply maple, you can swap out the electronic pads for traditional skins and bash on them just like a pro-level acoustic kit. $7,000

# ON




# TAKE A STAND

**MARANTZ HORIZON**

This exclusive first look at the Horizon reveals a gloriously different streaming speaker from Marantz. We're getting accustomed to traditional audio brands pivoting toward all-in-one solutions, but rarely are the results this adventurous. The circular design—echoing the porthole shape used to house analog VU meters on countless Marantz amps—houses a Rise amplifier, a Gravity driver configuration with neodymium magnets and paper diaphragm, and a nifty touch-control ring. This proprietary tech plus a host of clever DSP circuitry combine to offer audiophile levels of detail, warmth, and power.

**$TBD**

11

## CANNONDALE MOTERRA SL2 / CLEARY MEERKAT 24

For generation-spanning trail rides, we recommend Cannondale's Moterra SL2 (for grown-ups) and the Cleary Meerkat 24 (for your shorter companion). The electric SL2 is a carbon-fiber bike with a stellar balance of power and weight. The non-electric Meerkat has five speeds and hydraulic disc brakes for safe stops even in wet weather. An adjustable design keeps the bike comfy to ride from ages 7 to 10. **$7,000 / $500**

12

## T3 AIREBRUSH OVAL

When Dyson released its Airwrap in 2018, the beauty world went wild for its revolutionary dry-and-style multi-tool and its equally wild $600 price. Since then, we've seen impressive interpretations costing half that, including the T3 AireBrush Oval, which delivers mega blowouts via a body-boosting oval brush, while the uniform heat distribution protects your hair's natural moisture. With three settings for heat and two for speed, all types of hair are catered for. **$149**

12

13

## THE SMALL POTTERY WHEEL

Throwing pots is fun, messy, frustrating, and at times deeply meditative. Full-size pottery wheels cost thousands of dollars, so it's little wonder this tiny tabletop design sells out every time an edition is released. 3D-printed using recycled materials, it measures a mere 7 x 5.5 x 3.5 inches but spins in both directions and has a considerable amount of torque. Ideal for your smaller experiments, it's a fun, affordable way to switch off and get creative. **$215**


11

14

## COTOPAXI DEL DÍA ALLPA GEAR HAULER 30L

Made using leftover synthetic materials from Cotopaxi's core range of packs and gear, this splendidly clashing upcycled carry-all is a must-have whether you're camping, hiking, climbing, or simply taming all the clutter in the car. Two sets of handles enable in-hand or over-the-shoulder carrying. There are plenty of pockets and no lid, so you can overfill well beyond the 30-liter capacity. Each bag's coloring is unique, so you'll always know which is yours. **$75**


14

WISH LIST - THE WIRED 2024 GEAR OF THE YEAR -

13

ROB WILLIAMSON (SPEAKER); COURTESY OF CANNONDALE, CLEARY, T3 MICRO, SMALL CERAMICS, COTOPAXI (OTHER IMAGES)

# ROCK BLOCKS


**LEGO ICONS RETRO RADIO**

Lego's broad-sweeping Icons range has gained a radio which brings a dash of pale avocado 1970s cheer to your sideboard. The 906-brick build isn't hugely complex, but it is aimed squarely at adults with vintage tendencies; a Sound Brick behind one of the dials rewards nostalgic tune-in knob-twiddling by playing snippets of sports-casts and other stations between AM-style crack-les. If you want to hear your own playlist, just slot your phone into the integrated stand in the back panel.

**$100**

15

## SONOS ACE

Sonos first patented headphone tech back in 2021, and rumors of a release have been rife ever since. Thankfully, its first headphones are something of a triumph. A particular highlight is the ability to hand off Dolby Atmos spatial audio from a Sonos soundbar to the headphones over Wi-Fi. Out of the house, it's Bluetooth 5.4 time, with aptX Adaptive, if your phone supports it, and eight microphones to make the most of the solid active noise cancellation. $449


16

## MOTOROLA RAZR+

A hot pink finish, a big-enough-to-be-useful 4-inch external screen, and a 6.9-inch OLED internal display make the Razr+ a visual treat. There's a 50-megapixel main camera, 50-megapixel telephoto, and 32-megapixel selfie shooter, all of which puts image quality in line with the competition. But it's the camcorder mode that stands out: Fold the phone in a 90-degree angle, hold it sideways, and record video like an old video camera—just with much better-looking footage. $999


18

## BOSE SOUNDLINK MAX

In his review for WIRED, audio expert Simon Lucas described this Bluetooth speaker as "thumpingly loud, sonically impressive, and robustly muscular." It's a departure from the vanilla flavors Bose generally prefers, but combined with a 20-hour battery life and dunk-proof IP67 rating, it's a superb option for the home, garden, park, or (big) suitcase. Sound is served up by two full-range drivers, one tweeter, and two bass radiators that provide some low-end wallop. $399


17

## STEELCASE KARMAN

Endorsed by WIRED's office-chair guru Julian Chokkattu, the Steelcase's Karman is comfortable no matter how you're sitting, thanks to the weight-activated mechanism that responds automatically to your body as you change positions. Tuck one leg under the other, cross your legs at the knee, or sling one over the armrest, and you'll be well supported. The many adjustable bits let you precisely tailor the whole package to your body. The 12-year warranty is one of the best in the biz. $1,072

19

## KOBO LIBRA COLOR

While rumors swirl around a possible full-color Kindle, Kobo has quietly beaten Amazon to the punch with its design built around a 7-inch, E Ink Kaleido 3 screen. Made from recycled and ocean-bound plastic, the waterproof e-reader lends new life to digital graphic novels and comics, while adding the ability to highlight any ebook's text in various colors for diligent notetakers. There's also Kobo Stylus 2 compatibility, giving you the chance to scribble, annotate, and highlight on the fly. $220


ROB WILLIAMSON (DRUM KIT); CHRISTOPHER MITCHELL (LEGO); COURTESY OF: SONOS, MOTOROLA, STEELCASE, BOSE, KOBO (OTHER IMAGES)

# Holiday Gift Guide 2024

ROKFORM

## Magnetic Wireless iPhone Charger

Secure and stylish. Experience superior charging with Rokform.
**rokform.com | @rokform**

## Ekrin Athletics

Makes high-quality percussion massage guns backed by an unmatched lifetime guarantee. Their new Kestrel model adds more power & USB-C charging, ideal for tired muscles.
**Wired readers get 25% (code WIRED25) at Ekrin.com**

## Polarized Sunglasses For Less

Forever-cool styles. Lightweight & durable frames. UV-protected.
Always $50, only at **Quince.com**

WD

## Trusted Durability for Every Journey

The My Passport Ultra from WD provides a trusted and durable storage companion for your next vacation or journey.
**WD.com | @WDCreators**

TAP

## TapXR- Wearable Controller

The all-in-one wearable keyboard, mouse & controller for gamers, artists, musicians and gadget lovers.
10% discount code: WIREDGIFT
**tapwithus.com**

PXG

## PERFORMANCE TAKEN TO THE LIMIT

Experience groundbreaking new levels of feel, forgiveness, speed, and distance with PXG GEN7 Irons.
Book your fitting at **PXG.com**

## JURA J8 twin

Unparalleled coffee experience, with dual grinders and JURA's Sweet Foam function that flavors milk foam with a hint of syrup.
**$3,499 | jura.com**

DESIGN AWARD 2023

## Your Presence, Elevated.

ETHOS: Professional-grade audio, beautifully engineered in stainless steel. From remote meetings to podcasts and streaming, it's more than gear—it's your signature.
**$399 | earthworksaudio.com**

ALEN

## Pure Air for Life

Introducing the Alen BreatheSmart 35i. Powerful air purification at our lowest price, backed by our Forever Guarantee.
**alen.com/35i**

COAST

## Save Money With Rechargeable Batteries

Upgrade your gear with USB-C rechargeable AA and AAA batteries by COAST. These quick-charging batteries are the perfect sustainable option.
Save $5 off with code: ZXWIRED | **zithionx.com**

## H2O Audio TRI 2

***Waterproof Multi-Sport Headphones***

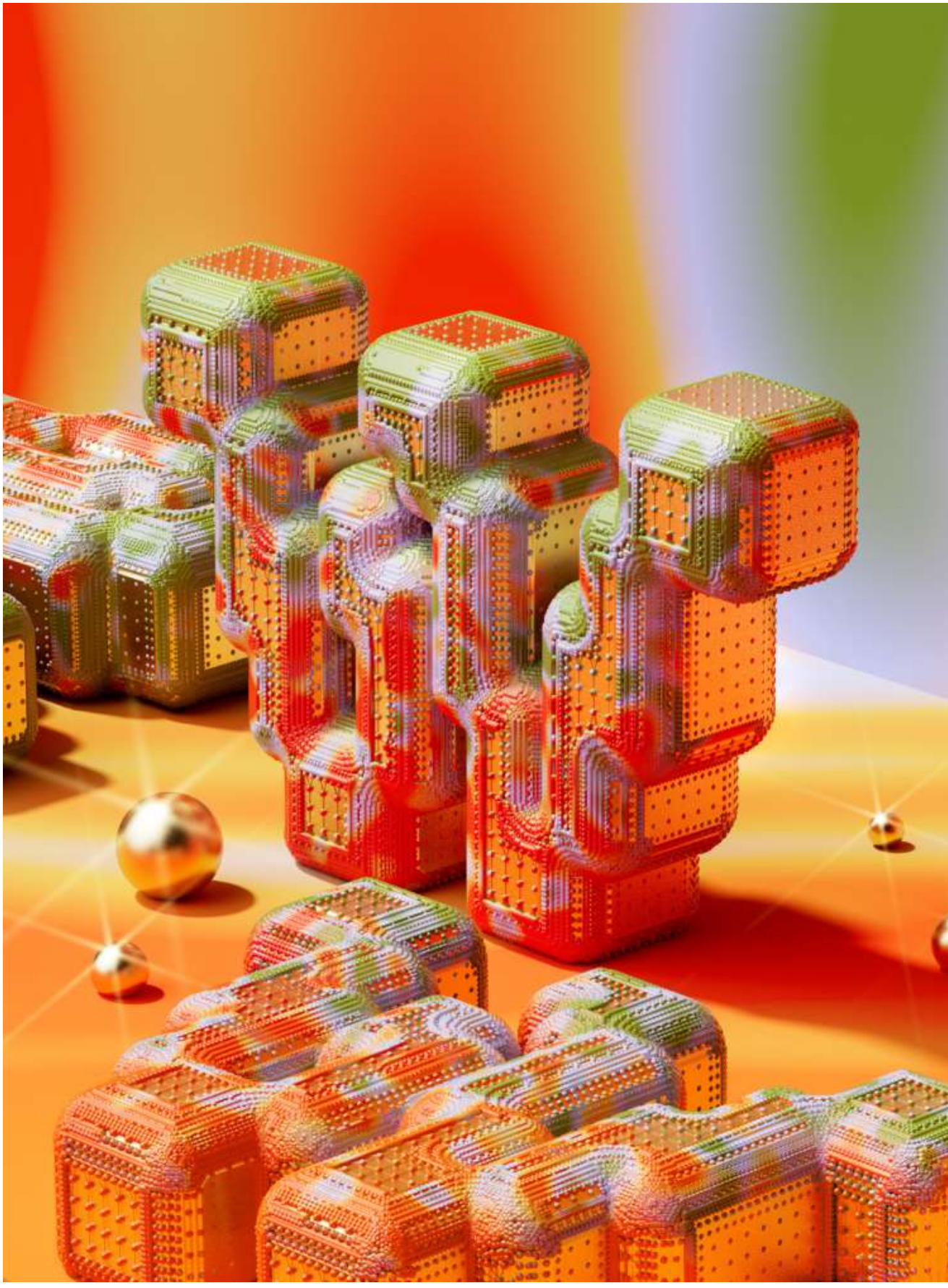
Premium sound for SWIM, BIKE or RUN. The ultimate holiday gift - designed by athletes for athletes. Go Below, Above & Beyond!
**h2oaudio.com**

SanDisk

## Back Up this Year's Treasured Memories

Whether photos, videos or important documents, the SanDisk Desk Drive offers a great place to store your stuff.
**SanDisk.com | @SanDisk**

ARTWORK BY KUSHAGRA GUPTA




“I actually question the premise.”
ARTWORK BY MY NAME IS WENDY
“This is capital.”
“This is not innovation.”
“What am I allowed to say?”
P.84
TRAE STEPHENS
THE
16
P.40
ANTONY BLINKEN
“He stole that phrase from me!”
BIG
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MEREDITH WHITTAKER
BOBBI ALTHOFF
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“I don’t mean that in a derogatory way.”

# INTERVIEWS

“The state of discourse in American politics is pathetic.”

MARK CUBAN

P.66

“You’d have to ask my business manager.”

JOSH JOHNSON

P.48

ALFONSO CUARÓN

P.90

For more conversations with our favorite people, go to WIRED.com/the-big-interview and WIRED’s YouTube channel. And take note: All of our interviews are edited for length and clarity.

“No, hell no.”

“I’m not anti-tech.”

BY **GARRETT GRAFF**

PHOTOGRAPHS BY MATT EICH



# THE DO-DO-ROK OF DIPLOMACY

## ANTONY BLINKEN

**Two major wars. A rising China. Hackers everywhere. He's from the US government, and he's here to help.**

# ANTONY BLINKEN

US SECRETARY OF STATE

# GARRETT GRAFF

AUTHOR AND HISTORIAN

HERE'S A FLASH OF ANTONY J. Blinken's turn as US secretary of state: In his first year, he navigated America's messy exit from Afghanistan. In his second, he tried to rally the world to Ukraine's side following Russia's invasion in February 2022. His third and, now fourth, have been defined by the Israel-Hamas conflict. In between, he has tried to box in rising Chinese aggression in Asia and slow Iran's march toward a nuclear weapon, even as the Islamic republic has (repeatedly) plotted to assassinate his predecessor, Mike Pompeo, for his role in killing Iranian military leader Qasem Soleimani. Don't forget either about the normal mix of crises, coups, summits, treaties, global elections—more humans will vote in 2024 than in any year in world history—and, this summer, the biggest prisoner swap with Russia since the end of the Cold War.

Blinken, 62, once thought he might become a musician—or maybe, even less lucratively, a journalist. Instead he has spent virtually his entire career in the Washington foreign policy establishment, which is something of a family business: Both his father and uncle were ambassadors during the Clinton administration. In the 2000s, Blinken was the Democratic staff director for the Senate Foreign Relations Committee, where he cemented his partnership with then chair Joe Biden. During the Obama administration, Blinken was Biden's national security adviser, a role that delivered him a cameo in that presidency's most famous picture: Look carefully at the 2011 snapshot of Obama and top officials monitoring the killing of Osama bin Laden from the White House Situation Room and there is Blinken, peeking over the shoulder of White House chief of staff Bill Daley.

Blinken spent the final two years of Obama's presidency as deputy secretary of state. So it was hardly a surprise that he was one of Biden's first cabinet hires in 2021. At his confirmation hearing, Blinken shared that his stepfather had been the sole student—among 900 children at his Polish school—to survive the Holocaust. The job is personal and all-consuming, and it's not even one he can escape for a few hours at home: Protesters spent months this spring and summer camped outside his house, with the hope of pressuring him to end the humanitarian crisis that has grown out of Israel's attacks in the Gaza Strip. At times they've poured fake blood on the road as the family—his wife, White House cabinet secretary Evan Ryan, and their 4- and 5-year-old kids—drive in and out.

He has visited roughly 90 countries in the past three and a half years, including 15 trips to Israel. During one of his seven trips to Ukraine, Blinken found a moment to rock out and play guitar at a club in Kiev, a viral clip meant to highlight how Ukraine has survived more than two years of punishing war.

In many of those trips and meetings, technology has been top of mind. In 2022 Blinken created a Bureau of Cyberspace and Digital Policy to lead the nation's overseas efforts on cybersecurity and the vital intersection of economic security and technology. And this May he flew to San Francisco to give a keynote at the RSA conference, a security industry event, where he joked, "'Move fast and break things' is literally the exact opposite of what we try to do at the State Department." (His team is also trying to modernize the famously outdated tech used by the State Department's 77,000 employees across some 300 embassies, consulates, and US offices.)

In early August—after Blinken returned from a trip through Laos, Vietnam, Japan, the Philippines, Singapore, and Mongolia, a journey one Chinese official labeled his "encirclement tour"—I sat down with the secretary in his personal office at State's Foggy Bottom headquarters, a small, cozy, wood-paneled room just steps (and a few very armored doors) away from the building's more ornate and lavish diplomatic spaces. At that moment, headlines were warning of an escalating attack on Israel by Hezbollah and Iran, and Ukraine had just invaded Russia's Kursk region. Time was, of course, tight—his daily schedule is measured to the minute—so we dove right in, and Blinken talked as casually as the nation's top diplomat ever does.

**Garrett Graff: On your first day, you promised that you were going to leave behind a department that was ready for the 21st century. I want to ask you about the digital work that the department has done. In June 2023, of course, the State Department discovered the Chinese intrusion of Microsoft systems. For those of us who cover cybersecurity, it was shocking that the State Department would be the originator of discovering an event like that.**

**Antony Blinken:** It was a little surprising for me too—both a pleasant surprise, because I was very proud of the fact that we have remarkable people in place who are able to do that—but of course, when you have any kind of cyber intrusion, it's a deep and ongoing concern. It's exactly why we've tried to make this department, among other things, fit for purpose when it comes to cybersecurity.

**One of the things you've done is create this new cybersecurity bureau with Ambassador Nate Fick. I wonder if you could talk a little bit about the effort.**

Look, what I've seen since coming back to the State Department three and a half years ago is that everything happening in the technological world and in cyberspace is increasingly central to our foreign policy.

There's almost a perfect storm that's come together over the last few years, several major developments that have really brought this to the forefront of what we're doing and what we need to do. First, we have a new generation of foundational technologies that are literally changing the world all at the same time—whether it's AI, quantum, microelectronics, biotech, telecommunications. They're having a profound impact, and increasingly they're converging and feeding off of each other.

Second, we're seeing that the line between the digital and physical worlds is evaporating, erasing. We have cars, ports, hospitals that are, in effect, huge data centers. They're big vulnerabilities. At the same time, we have increasingly rare materials that are critical to technology and fragile supply chains. In each of these areas, the State Department is taking action.

This interview has been edited for length and clarity, combining on-camera and off-camera portions. A version of it can be found on WIRED's YouTube channel.

We have to look at everything in terms of "stacks"—the hardware, the software, the talent, and the norms, the rules, the standards by which this technology is used.

Besides setting up an entire new Bureau of Cyberspace and Digital Policy—and the bureaus are really the building blocks in our department—we've now trained more than 200 cybersecurity and digital officers, people who are genuinely expert. Every one of our embassies around the world will have at least one person who is truly fluent in tech and digital policy. My goal is to make sure that across the entire department we have basic literacy—ideally fluency—and even, eventually, mastery. All of this to make sure that, as I said, this department is fit for purpose across the entire information and digital space.

**Your tenure here at Foggy Bottom has coincided with what feels like the fracturing of the dream of a global internet. We've begun to see this splintering into separate realms—a European regulatory web, and authoritarian regimes using the internet as a surveillance tool. Of course, we've seen this play out in US policy on Huawei and TikTok.**

Ideally we don't have that fracturing, and certainly that would be the preference. We've done a number of things actually to try to move in another direction—to try to build broad consensus on the way technology is used. Let me give you an example on AI. We had incredible work done by the White House to develop basic principles with the foundational companies. The voluntary commitments that they made, the State Department has worked to internationalize those commitments. We have a G7 code of conduct—the leading democratic economies in the world—all agreeing to basic principles with a focus on safety.

We managed to get the very first resolution ever on artificial intelligence through the United Nations General Assembly—192 countries also signing up to basic principles on safety and a focus on using AI to advance sustainable development goals on things like health, education, climate. We also have more than 50 countries that have signed on to basic principles on the responsible military use of AI.

The goal here is not to have a world that is bifurcated in any way. It's to try to bring everyone together. Having said that, you're right—there are areas where, of course, we're in intense competition with other countries. If we can't come together on rules that make sure that we're elevating the good and minimizing the bad, we have to make sure we're protecting our values and protecting our interests.

For example, when it comes to the highest-end technology—say the highest-end chips—we want to make sure that a country like China is not able to acquire those and then feed them directly into its military program. They're engaged right now in an extensive expansion of their nuclear program—very opaque—and it's not in our interest for them to have the highest-end technology.

Also, technology is unfortunately used to repress people, for surveillance and to repress their human rights. We want to make sure our technology is not used for that. We want to make sure that as we're protecting—as opposed to promoting—technology in a way that has the smallest possible yard, along with the highest possible fence.

Broadly speaking, we see technology profoundly as a source for good, for progress. But for discrete parts of the ecosystem, we have to make sure we're protecting. We have to have supply chains that are not only resilient but diversified, so we're not dependent on any one place for any critical input. We went through Covid—we saw where that can lead. We don't want to see the same thing on critical technology.

**Let me ask you also about Russia and ransomware, another issue that has defined your tenure and the administration's national security agenda over the past couple of years. Is there more that the United States and the Western Alliance could be doing to push Russia to be a better actor, or is this an intractable problem?**

Look, it is an ongoing challenge. President Biden engaged President Putin on this early in his term—this was before the invasion of Ukraine—and we were making some progress on getting Russia to act in a more responsible way when it came to ransomware. Then the invasion of Ukraine happened. It's obviously made the entire relationship much more difficult than it already was. I think, unfortunately, there are probably limits to what we can achieve. Having said that, we're also working increasingly collaboratively—not only with the private sector, but also with other countries—to develop common strategies, to build solidarity, because so many companies and countries are afflicted with the scourge of ransomware.

**Your predecessor, Mike Pompeo, came to this job with "swagger." The word characterized his tenure and approach to the world. It feels like there's been a different tempo in world events in the past few years, as if your tenure has been more defined by the limits of American power—Afghanistan, Ukraine, the Middle East, China.**

I actually question the premise. I don't see the experience that we've had highlighting the limits of our power. On the contrary, I see in many ways a rejuvenation of American power.

When President Biden came in, the first thing he said was, "I want you to go out and reinvigorate, reengage, and, if necessary, reimagine our partnerships and our alliances around the world." He did that for a very clear reason. As we saw the world and America's place in it, we had two basic conclusions: One is that when the United States is not engaged, when we're not leading, either you're going to get someone else who is—and probably not in a way that advances our interests and values—or maybe, just as bad, you get no one, and then you have a vacuum filled by bad things. American engagement and leadership was one side of the coin, but the flip side is finding ways to cooperate, to collaborate, to communicate with all sorts of actors who have an increasingly powerful role in shaping the direction of the world. The fact is that for all of the power that we have—which remains extraordinary over virtually every domain—we're simply not as effective in getting solutions and solving problems alone as we are when we're doing it with others.

**Where have you seen those alliances and partnerships come into play?**

We see it with Ukraine, where we've brought together more than 50 countries in defense of Ukraine—not just in Europe, but halfway around the world, in Asia—and taking steps to support Ukraine, to penalize Russia, to strengthen our own alliance at NATO that are genuinely historic. That's a product of our leadership.

We see tremendous convergence on the approach to China and the challenges that it poses—both in the transatlantic community and also with critical allies and partners in Asia. In the time that I've been doing this, I've never seen greater convergence on how to think about the challenges and then what to do about them.

We built alliances on everything from global health, dealing effectively with Covid and getting vaccines out there, to maybe the biggest affliction that the United States faces—fentanyl. This is the number one killer of Americans aged 18 to 45—not guns, not car accidents, not cancer. Fentanyl. Not only have we used our diplomacy to get greater cooperation from China in starting to limit the flow of the chemical precursors—the ingredients that go into making fentanyl—we built an alliance, now more than 150 countries, that is working together to curb the diversion of these precursors around the world.

When we engage, when we lead, when we do it in a way that brings others along, this has actually been a manifestation of American power.

**What do you feel like you've learned about the world in this job that you didn't know coming into it?**

> "Today there is a greater complexity, greater interconnectedness in the challenges we face than at any time since I've been doing this."

I had obviously some ideas built up over more than 30 years of doing this. But like anything, you've got plans, you've got ideas, and then you've got first contact—and you have to adjust.

Two things have … I'm not sure if they surprised me, but they've clearly been spotlighted in ways that were even sharper than I might have imagined. One is that there is a greater multiplicity, greater complexity, and greater interconnectedness of the challenges we face than at any time since I've been doing this. That's really stood out. I knew that intuitively, but you don't *really* know it until you're dealing with it. We always have rose-tinted glasses about the past to some extent.

The second thing is, in the time that I've been working in government, the single biggest change for me has been in the information environment. When I started out at the beginning of the Clinton administration, basically everyone did the same two things—you got up in the morning, you opened the front door of your house or apartment, and you picked up a hard copy of The New York Times or The Washington Post or The Wall Street Journal. Then if you had a TV in your office, at 6:30 pm you turned it on and watched the network news, CBS, NBC, ABC. Those were your basic sources of information. They defined your day. Now, of course, we're at an intravenous speed where every millisecond we're getting some new jolt of information. The pressure to respond, to react, is so much more intense. This has driven home the need to have as much discipline as possible in taking a breath—not simply reacting and responding, but to take the time to collect your thoughts, to get together with all the other stakeholders on a given problem, and to spend some time thinking it through. The pressure in the other direction is more intense than it's ever been.

**You've been part of a big arc in how Washington has thought about China over the past 30 years.**

There was a Washington consensus for many, many years that China's integration—particularly economic integration—would have an effect on its political system and the way it engaged around the world. We've seen that consensus in recent years evaporate, because we do see a China that, from their perspective for maybe understandable reasons, does seek to be the preeminent actor in the world—militarily, diplomatically, politically, economically. Now, if they had the same basic value set that we do, if they had the same basic interests, that would be one thing, but they don't. They have a different worldview. So this represents for us an intense competition, because we're at the dawn of a new era. We're past the post–Cold War era, and there's an intense competition to shape what comes next. We're competing with China to do that.

**What have you learned about China here, in this job?**

You can't simply define the relationship on a bumper sticker. If I had to pick one word, it's "competition." For Americans, there's nothing wrong with competition—on the contrary, competition, as long as it's fair, as long as it's on a level playing field, usually brings out the best in us. But we also want to make sure that it's competition that doesn't generate conflict.

There are other aspects to the relationship that are important too, and this is why the bumper sticker would have to be a pretty long one. As arguably the two most important players in the world, there are places where it's going to be in the interests of the American people and the Chinese people—and those of people around the world—to cooperate, to effectively communicate, so we minimize the chances of conflict even as we're competing. We restored military-to-military communications—it's critical to avoid any misunderstandings—and that's happening at all levels. That's good.

**Elon Musk is an American citizen with an enormous amount of geopolitical power. We've seen it in Ukraine with Starlink. We've seen it with X and the Venezuelan elections. How worried are you about Elon Musk's role in the world, and the divergence between US tech platforms and US foreign policy?**

I'm not going to focus on any one individual. We of course see the extraordinary power—the extraordinary impact—that platforms have, just as we do with companies that have developed foundational technologies, including generative AI. We want to see platforms, companies,

**"When I'm raising concerns about the direction of another country's democracy, I am able to say that we have problems in our country too. We don't sweep them under the rug."**

and innovators act responsibly, and that involves a number of things.

First, it involves—hopefully—collaboration between the federal government and these companies. We've done that intensely and extensively. I've met many times with the leaders of different critical companies to talk through how they're seeing the world, how we're seeing it. How "We're from the federal government, we're here to help," how we can do that.

A big part of this is making sure that we're helping to establish the rules, norms, and standards by which technology is used. In an ideal world, companies and platforms will do a lot of that themselves. In many ways that would be preferable—sometimes when government comes in, it does things with a two-by-four instead of with a scalpel.

**How do you use tech in your life—do you have a burner account on Instagram that you scroll in the evening? TikTok? What websites do you visit during the day?**

I've got a lot of go-to places that I start my day with on my iPhone, but I shouldn't be doing brand advertising, so I'll probably stay away from that. The big thread in my life is music. It's the thing I come back to again and again. Tech makes my ability to connect to and to consume music much, much easier. It's really opened whole new worlds.

**Has being a dad changed the way that you look at tech?**

Like any parent with young kids, it's both exhilarating and a little bit frightening. You see the extraordinary facility children have with technology, and you see technology designed so brilliantly and intuitively. When my son was maybe 3, he wanted to watch some *Sesame Street* videos on my iPhone—we, of course, limit the amount of time that they spend on TV, but they see some of it. I couldn't believe watching him as a 3-year-old, and then my daughter, intuitively scroll and swipe. But when I saw my son go on a site to get to a video of *Sesame Street* and hit "Skip Ad," that was an eye opener.

**What are the stakes of this election? Is it challenging to go around the world and talk about the glories of democracy as our democracy has struggled so at home?**

In a funny way, no, to the latter part of your question. When I'm going around the world and raising concerns that we may have about the direction of another country's democracy, what I am able to say is that when we have problems here in our country, we don't pretend they don't exist. We don't sweep them under the rug. We actually confront them. We do it transparently, we argue about it, we shout about it, but we confront it. Sometimes it's incredibly painful, sometimes it's incredibly ugly, but we do it. Throughout our history, when we've had periods of real challenge internally, precisely *because* we confront the challenges openly, directly, we've always come out better and stronger. At the very least, what I'm able to say to countries is, "OK, we're not saying do exactly what we do or model yourselves exactly after us—we're not about that—but at least acknowledge, confront, deal with your challenges."

**Do you think in this moment that's true too—that we'll come out the other side of this political moment stronger?**

I have to believe—want to believe—based on my own knowledge and understanding of our history that the answer is yes. But, of course, in my job I don't do politics—I'm focused on policies. I'm focused on how we can best advance our interests and values around the world in ways that will have a positive impact on Americans, make all of us a little bit more secure, a little bit more prosperous, a little bit healthier.

**When you leave this office, whenever that is, who are the world leaders you're going to invite on your world band tour?**

It's a great question, and one that I could probably answer when I'm out of this job, at the risk of creating a diplomatic incident while I'm still in it.

I can reel off the names of a lot of people who I have genuine friendships with that will continue after we're out of our respective positions. But there's something else: I get to meet people from all walks of life doing incredible things—innovating, solving problems, dealing with adversity.

It reinforces something that I believed coming into this and now I feel even more strongly: Any challenge we face, I'm convinced that somewhere in our great country—or maybe somewhere around the world—someone has probably figured out the answer, at least the beginnings of an answer.

If you can't connect, if you can't share that knowledge, share that information, share that experience, then everyone's going to have to reinvent the wheel in trying to solve the same problem.

**You've spent 30 years in Washington and have now achieved every foreign policy staffer's terminal dream. Whenever you leave this job, what's next for you—what's your next ambition?**

It's really hard to think about what comes next when you're in the midst of what we're doing now, because it's all-consuming. I'm also blessed with two young children at a relatively advanced age. For me, the single most important thing, like for any parent, is them and their future, and watching them grow up, participating in them growing up.

**When you leave office, are we going to be seeing more posted on your Spotify, "Ablinken"?**

I thought at a young age that maybe I wanted to try music as a career, and then I realized I was missing one thing: talent. I'm not sure I want to inflict any more music on the world. I actually hope—talk about what comes next—to get to attend a few concerts. That'd be great.

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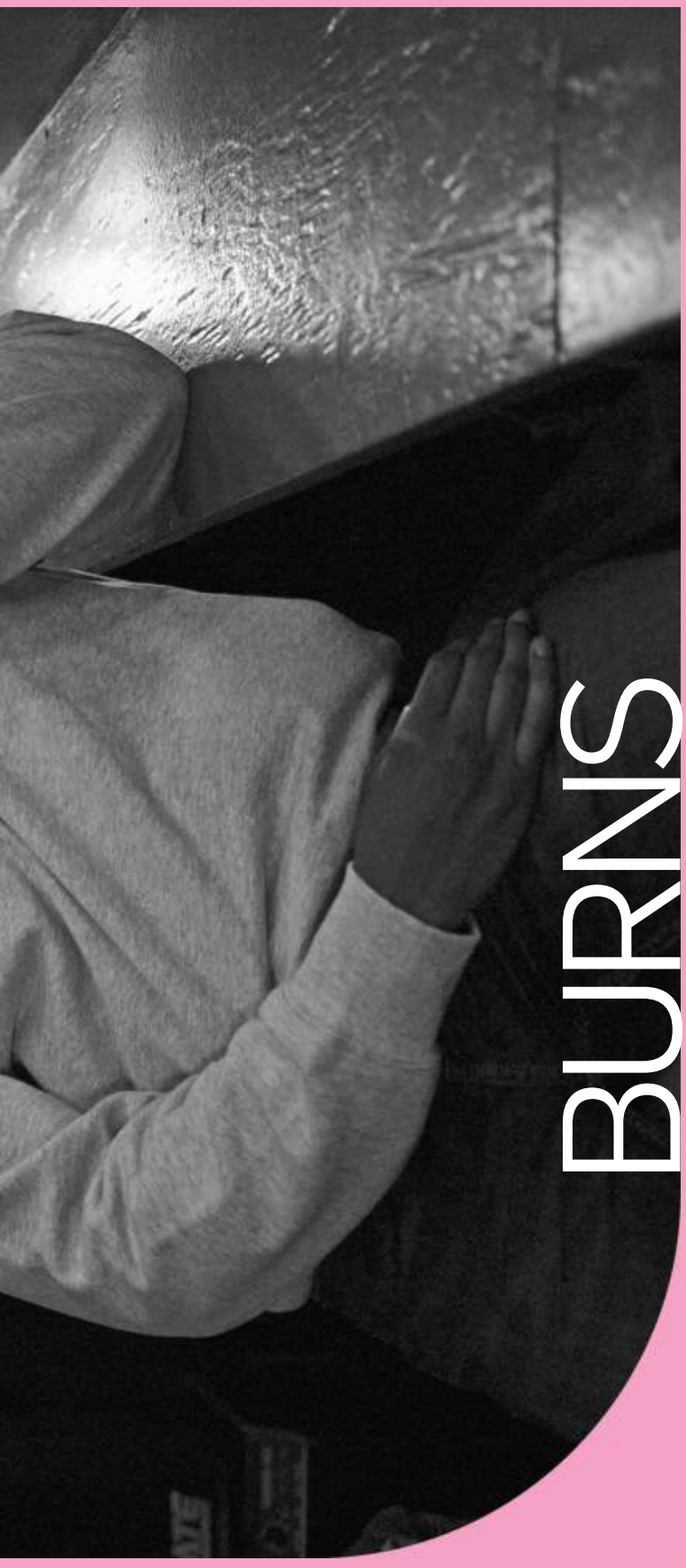
BY **JASON PARHAM**

# THE SICK (AND SLOW)

PHOTOGRAPHS BY **BRAD OGBONNA**





# BURNS OF JOSH JOHNSON

**The comedian tells jokes the way he found fame: slowly, and then all at once.**

# JOSH JOHNSON

COMEDIAN

# JASON PARHAM

SENIOR WRITER, WIRED

**THE THING ABOUT FAMILY, JOSH** Johnson wants me to know, as he scoots closer and angles his phone in my direction, is that they suck at boundaries.

It's morning in New York City, a pinch shy of noon, and we are on the subject of family because Johnson's phone won't stop buzzing. At first I assume it's work, and I want to ask if this is a common occurrence now, if his recent rise to semi-stardom has prompted a wave of attention. I want to know how he's handling it, or not. I want to hear what has changed for him, and if his dad's passing, in 2016, afforded him any perspective.

But Johnson, being the acute observer and anticipator that he is, explains the situation before I can get words out: Drama is brewing in the group chat. The saga involves, as these things often do, a crazy cousin. "It's really bad," says Johnson, caked in the soft lighting of a chic disco (transformed into a video- and photo-set today) in midtown Manhattan. Because said cousin keeps flooding the chat with bizarre QAnon propaganda no one wants or asked for, the family started another group chat without him. Except he found that one. And the one after that. He somehow keeps getting added to them, Johnson says, because "crazy finds a way."

The story ends there, and I realize I've been Johnson'd: A relatable, mundane premise has ballooned into a cosmic, or at least fairly comic, wisdom. As a stand-up comedian, that's Johnson's specialty. Maybe you've been to one of his sold-out shows. Perhaps you are among his 1.3 million TikTok followers. There's also a more-than-decent chance you've seen him on *The Daily Show*, where, as of this year, he was bumped from the writer's room to full-time correspondent. Or maybe—it's all good, I forgive you—this is your first encounter.

Whatever your entry point, what you notice almost immediately is how Johnson unravels a story like a detective, with a kind of forensic scrutiny for the familiar. He is purposefully digressive, detouring by way of (apparent) improvisation. Revelation is always the result of his meticulous curiosities. Curiosities about everything from family group chats to smart TVs, dinner parties, relationship disputes, trad wives, washing machines, and American history. What Johnson's comedy of the everyday achieves is a kind of comic cartography. He turns the unremarkable into a map of shared astonishments.

Now 34, Johnson was raised in Alexandria, Louisiana. He kick-started his stand-up career in Chicago, then got his first break in late night as a writer on *The Tonight Show Starring Jimmy Fallon*, where he also performed the occasional routine. In 2017 he jumped over to *The Daily Show*, which, in the wake of longtime host Jon Stewart's departure, was undergoing growing pains. Johnson embraced the challenge, and what followed was a glow-up not even he could've predicted. He opened for Trevor Noah at Madison Square Garden. He headlined a national tour. He appeared in multiple specials, including his own on Peacock, titled *Up Here Killing Myself*. At the same time, he was building up a fan base on TikTok, with meandering, many-minute videos that trusted audiences to follow along. The more I talk to him, the more I think that *that*—Johnson's patience, and his expectation of ours—is the cornerstone of his appeal. Though his comedy is very much on the internet, it doesn't feel *of* the internet: In an age of instant gratification, Johnson takes his time.

This interview has been edited for length and clarity, combining on-camera and off-camera portions. A version of it can be found on WIRED's YouTube channel.

**Jason Parham: You headlined a national tour this year. I imagine that comes with a lot of pressure.**
**Josh Johnson:** Sure, sure. But also, that pressure is very much a privilege. There was a long time where there was no pressure on me because no one cared what I would do.

**Have you learned anything about yourself throughout the process?**
I don't need much sleep. I need, like, four bad hours. I don't know if that'll last. I think it's very much a now thing. I think, five years from now, I'll need sleep very badly.

**Let's talk about your comedy heroes.**
There are those almost template answers of Carlin and Pryor, but fundamentally they changed what people understood stand-up to be. Rather than just doing the joke—*my wife, oh my wife*—rather than doing that nonstop, a lot of it was either biographical or it was world takes.

**Is there a joke that stands out?**
What am I allowed to say?

**Anything.**
I'm paraphrasing it badly, but basically Pryor had this joke where he was like, "Duh, duh, duh, duh. That would be like me sucking a dick." And then everybody busts out laughing. Then he is like, "I'm just kidding." And then he takes another pause, and he's like, "No, I'm not."

**He keeps flipping the joke, to the point where the audience doesn't know what to expect.**
He did have jokes that didn't make it into specials that were about him being bisexual. This was a time where it was truly unthinkable and unheard of. Who else was really doing that? Who else was really like, No, I'm famous enough, I'm rich enough, and I'm influential enough to not just allude, but actually tell an audience stories about an experience that would be unimaginable for their favorite guy to have? There's a sincere bravery to that, whether you get it right or not, or whether history looks back at the context in a fair way.

**Is legacy something you think about?**
I hope to be looked back on fondly, but who knows? It's not really up to me. So I had to let that go a long time ago.

**Walk me through your process. Does a Josh Johnson joke have a specific structure or arc?**
Do you know that game at the fair that has holes in it and there's a little ball that you're trying to get through a maze to the other side?

**Sure.**
That's what I would describe as one of my jokes. And the ball doesn't always make it to the other side.

**For example?**
I watched the Olympics, and I did a set on the Australian breakdancer. There were a lot of movements that I had never seen before, so I was like, that's some real creativity. But also, is it just bad? Because it's being universally panned. And so you try to think of what's the subversive take. Was it horrible? Is there a way that I can prove it wasn't horrible? I did fall in the camp that it was horrible.

**I think a lot of us were there.**
But then there are so many other angles to think about with it. She said that she made up all the moves that she did. And in the set I say that I believe her. There are moves that I've never seen before, but then how did we get here? What could we have done to help her along before she got there? Maybe if Australia had a better immigration policy, there would've been some more Black people in Australia to be like, *Hey, don't do that. Let's show you what to do.* And I'm not even saying you have to open your borders. Three Black people. Three extra Black people could have prevented a nationwide disaster.

**[*Laughs*] So, you're sort of free-associating.**
I think a lot of times when people tell a story, they give you all of the hard-line moments. And obviously you don't want any fat in your jokes or in your stories. But also I think that sometimes telling stories from A to B leaves out a lot of what's in between, which is intention, the feelings that people must have had while they were going through the thing.

**Has social media changed your relationship to comedy?**
I don't know if it has. My comedy is a relationship between me and the people that come to the show. Posting to social is my relation to people who I hope will come to a show one day and who I think will enjoy these jokes. When I'm done with a joke, why not share it?

**It's working. You've blown up on TikTok. What's life like now?**
I'm still getting used to everything, so I don't really know what the difference is. From even where I came from to be doing what I'm doing now, it's a real blessing.

**How so?**
Alexandria afforded me a lot of opportunities that I didn't see at the time, because I grew up in a lot of different intersections. I was around white kids at school but then Black people at home. Whether it was going to birthday parties or whether it was doing sports, I was around these kids that were in more affluent neighborhoods, and I got to see what money was like and what it could bring. And then back at home, there would be lots of violence that I was closer to. I knew how easy it was for things to go sideways for a person. It's not as if I was in the most danger or

anything like that. It's just, whether I was coming home at night or having to run to work—because I'm not a good driver, I can't drive, so I would run to work in the morning. That was a nice long run through neighborhoods where people were running for different reasons. You know what I mean?

**Oh man, I do.**
I look at where I'm at now, and it's something that you hope for, but it's not something that you know how to imagine. You would hope that, "Oh, I'll do comedy one day and maybe I'll get paid to do comedy or maybe I'll do a show and everyone will come to see what I have to say." But what's happening now is one of those things where—it's hard to put, this might not make sense, but it both feels like an overwhelming reality that you can't believe, and at the same time it feels familiar because you've dreamed of it for so long.

**So this was the dream.**
I got a degree in lighting design. So I was like, "I'll go to Chicago and do design work." Then a real decision had to be made, because if you're going to do design, that can be freelance forever. Comedy can also be freelance forever, but I realized I was better at and more enthusiastic about comedy, and so I was like, "You could be poor doing anything, so why not be poor at doing something that you're a little better at?"

**And now you're on *The Daily Show*. I'm curious if, as one of two Black correspondents, you feel a burden of representation?**
Not really. To think that every take and understanding of a story comes down to representation is to do a disservice to the people that you're speaking to and about. I don't think of it as a battle, if that makes sense. I don't know if that fully answers your question.

**Well, I was curious about how you navigate the job, and what it asks of you. You are in a very rare position that comes with a unique set of challenges. There were times in my career where I felt pressured—and in hindsight maybe I put some of that pressure on myself—to write about a certain topic either because I knew no one at my job would or I was asked outright, even though I didn't want to.**
I don't feel any burden. Like you said, I am one of two Black correspondents, but we also have a team behind the scenes that's one of the most diverse teams in late night. We have a sense of who we're speaking to and about when we talk about a story. I never feel like, "Oh, jeez, I'm going to have to talk about this" or something. I more feel like these are real opportunities.

**News commentary and political satire define so much of the media climate now. Is *The Daily Show* still relevant?**
A lot of the political commentary that exists is derivative of *The Daily Show*, because *The Daily Show* was this transformative piece of satire for how to engage with politics. *The Daily Show* ends up getting digested on every medium, which I think is indicative of something that's still relevant. I also think that taking things like YouTube, Instagram, and TikTok very seriously is an opportunity.

**In what way?**
For me, sometimes when I even pitch something, I'm informed by the general sentiments coming off of social as much as I am by what's being written in the news. As long as there's politics, there'll be political satire, and as long as there's political satire, I think the people doing it at the highest level will have a place with the people consuming it.

**But I don't know if political humor is moving the needle in the way it once did. There's so much noise now.**
Well, there's a lot of noise, but also, I guess I'm interested in what your definition of moving the needle is.

**"To think that every take and understanding of a story comes down to representation is to do a disservice to the people that you're speaking to and about."**

> **“I never want to lose sight of how I got here. You always have to leave space for the idea that it’s possible to become a person that you don’t like.”**

**I started watching *The Daily Show* religiously around 2004, when I started college. Later, when Trevor Noah took over the desk, the show no longer felt like appointment viewing. Part of it was Trevor’s style. He didn’t feel as nimble as Jon. Another part, the larger part I think, had to do with the technologies that were changing how we consumed media and connected with one another.**
That makes sense. Sometimes I think it’s easy to conflate relevance with impact, but if something isn’t impacting you in the way that it used to, it may also mean that the individuals themselves are making a change in how they consume media.

**And comedy itself has changed—with social media, streaming. Are there new rules for comedy?**
There’s a great book by Kliph Nesteroff called *Outrageous: A History of Showbiz and the Culture Wars*, and it talks about cancel culture before it had a name. People point to Carlin getting arrested for the seven dirty words and stuff like that, but the further you go back in history, the more restraints comedians had. We’re talking decades before Carlin. There were people that were arrested for alluding to sex—which was something that people were having.

**Yes. Even back then, people had sex.**
If anything, Carlin, Lenny Bruce, some of those were the last people to actually feel the consequences of doing comedy for an audience who wanted it.

**Nobody is being arrested today, you mean.**
This is the most free time we’ve ever had.

**Even with cancel culture? Or maybe we’re past that?**
There is living proof right now that if you are funny enough, you are not cancelable. People will still come to the shows, they’re buying the tickets, they’re watching your specials.

**I suppose it *seems* worse now, because social media puts the reactions and responses to everything constantly in our faces.**
We have more access to outrage than we’ve ever had. You used to stay mad about something. You used to be mad as hell about one thing that happened, and then there was turmoil in the streets and it was something that we talked about for months. Now, people are mad as hell about 12 things a day that they never revisit. Who’s the dude that shot the lion, that dentist that shot the lion?

**I must’ve missed that.**
Never mind. We either miss it or we can’t remember it.

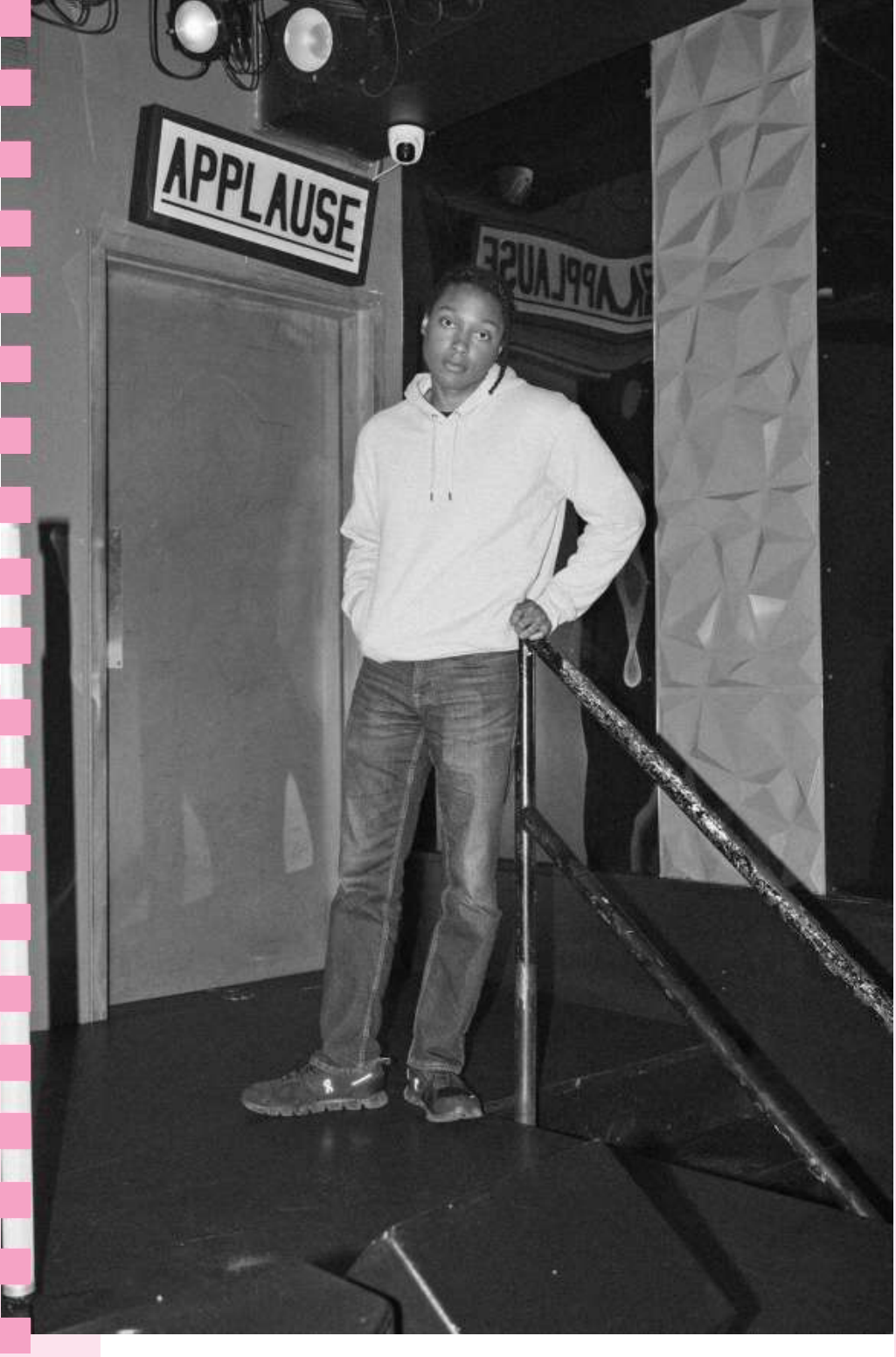
**But we have powerful feelings in the moment.**
I don’t even think half those feelings are lasting. A week later, if you went to that same person, they wouldn’t care. So if you don’t care a week later, why are you telling me to kill myself today?

**Chappelle, Seinfeld—they’ve both caught a lot of shit for things they’ve said in recent years.**
Chappelle catching hell is indicative of being relevant. I don’t see a world where you do Chappelle’s numbers and you make Chappelle’s money and you have Chappelle’s background, body of work, and you’re not relevant. There are some things that are so big. It’s like how people will try to say Facebook isn’t relevant. Facebook is still serving over a billion users. So it may not be something that you consume as much, and it may not be a platform that you like at all. Maybe you feel like Facebook is helping to subvert trust in the political process, but it’s still relevant, and the outrage is part of the relevance, and the outrage keeps the relevance.

**Sure, outrage keeps the relevance. Doesn’t mean it’s healthy.**
I’m saying that if Chappelle releases a special and there are 12 think pieces on it, how is Chappelle then not relevant?

**Do public controversies ever affect your approach?**
There are some big ideas, and I think the way in is to make them digestible, to make the entry a little bit smoother. If I walk out on stage and I’m like, “Racism, right, y’all?” I think that’s a different show.

**It’s not necessarily a *bad* show.**
It’s not a bad show, but I think it starts




_JOSH JOHNSON

off on a different tone than like, "This thing happened to me today," and the thing is funny, and now we're talking about racism all of a sudden. You look at old Carlin clips and the reason that they're still relevant is he wasn't saying something specific to the time. He wasn't calling out Reagan or naming one specific company in a joke. He was talking about everything in the broader scope of why it happens. And if you keep things to the broader scope of why something happens, using jokes as the entryway, how can you not continue to have something that yields benefits for people long after you're gone?

**TikTok is why you're famous, but you once joked that the internet was a bad idea.**

Just because I'm benefiting doesn't mean that it wasn't wrong. I'll say it this way. There are definitely people who are like, "Man, asbestos made us rich, it's still not great for the public's health." You could still look back and be like, "Maybe we should have thought of a different solution than asbestos." I feel the same about the internet. But I am watching younger people have an understanding of their consumption of the internet that I don't think we had. You see some younger people being like, "Ah, this doesn't make me feel good." I think I had been on the internet for a decade before I ever asked how it made me feel.

**At the beginning, it was new, exciting, maybe a little scary. The unknown of it all. What scares you now?**

I'm scared of becoming an out-of-touch callus to my craft and community that I've built. I never want to lose sight of how I got here. I think you always have to leave space for the idea that it's possible for you to unintentionally become a person that you don't like.

**How would that happen?**

I'm constantly trying to remember how to not lose sight of myself, because I think that one of the best things that can happen is you're alone in a room looking in a mirror and you like the person that you see. I'm sure I'm going to fail sometimes, but the person that I feel like I started to become after I lost my dad, if I stay that person, I think that everyone in my life will know that I love them and that I'm doing my best. I think that as long as there's an understanding of that, then how can you not love life if the people that love you know that you love them, and you know you're doing everything that you can to be understanding and supportive and show love? The rest is just chilling. The rest is good tacos and Thai food.

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**JASON PARHAM** *is a senior writer at* WIRED. *He wrote about reality TV in issue 31.06.*

BY **ANDY GREENBERG**

PHOTOGRAPHS BY **DINA LITOVSKY**



# THE INTERNET OF MEREDITH WHITTAKER

**Signal's president wants to remind you that the world's most secure communications platform is a nonprofit.**

**It's free. It doesn't track you or serve you ads. It pays its engineers very well. And it's a go-to app for hundreds of millions of people.**

# MEREDITH WHITTAKER

PRESIDENT, SIGNAL FOUNDATION

# ANDY GREENBERG

SENIOR WRITER, WIRED

TEN YEARS AGO, WIRED PUBLISHED A news story about how two little-known, slightly ramshackle encryption apps called RedPhone and TextSecure were merging to form something called Signal. Since that July in 2014, Signal has transformed from a cypherpunk curiosity—created by an anarchist coder, run by a scrappy team working in a single room in San Francisco, spread word-of-mouth by hackers competing for paranoia points—into a full-blown, mainstream, encrypted communications phenomenon. Hundreds of millions of people have now downloaded Signal. (Including Drake: "Cuban girl, her family grind coffee," he rapped in his 2022 song "Major Distribution." "Text me on the Signal, don't call me.") Billions more use Signal's encryption protocols integrated into platforms like WhatsApp.

That origin story is, perhaps, a startup cliché. But Signal is, in many ways, the exact opposite of the Silicon Valley model. It's a nonprofit funded by donations. It has never taken investment, makes its product available for free, has no advertisements, and collects virtually no information on its users—while competing with tech giants and winning. In a world where Elon Musk seems to have proven that practically no privately owned communication forum is immune from a single rich person's whims, Signal stands as a counterfactual: evidence that venture capitalism and surveillance capitalism—hell, capitalism, period—are not the only paths forward for the future of technology.

Over its past decade, no leader of Signal has embodied that iconoclasm as visibly as Meredith Whittaker. Signal's president since 2022 is one of the world's most prominent tech critics: When she worked at Google, she led walkouts to protest its discriminatory practices and spoke out against its military contracts. She cofounded the AI Now Institute to address ethical implications of artificial intelligence and has become a leading voice for the notion that AI and surveillance are inherently intertwined. Since she took on the presidency at the Signal Foundation, she has come to see her central task as working to find a long-term taproot of funding to keep Signal alive for decades to come—with zero compromises or corporate entanglements—so it can serve as a model for an entirely new kind of tech ecosystem.

Whittaker has been based in Paris for the summer, but I met up with her during a quick visit to her home city of New York. In a Brooklyn café, we ended up delving deepest into a subject that, as outspoken as the privacy exec may be, she rarely speaks about: herself, and her strange path from Google manager to Silicon Valley gadfly.

**Andy Greenberg: Is it OK to say here that we had planned to talk on the actual 10th anniversary of Signal but had to reschedule because you were hospitalized with food poisoning?**
**Meredith Whittaker:** Yeah, that's fine.

**OK. So you're not quite a privacy person like [Signal Foundation cofounders] Moxie Marlinspike or Brian Acton …**
No, I'm a woman, for one thing.

**True! But also, there's no way either of them would let me mention something personal like that. They're much more guarded in the way they present themselves. It seems like you're a different kind of leader for Signal.**
I think the Venn diagram of our beliefs has some significant overlaps. We all have a clear analysis of surveillance capitalism and the stakes of mass surveillance in the hands of the powerful. But in terms of my personal guardedness around my own life: I am a private person. There's not that much on the internet about me, because from a young age, I've had a fundamental instinct not to tell too much. But I think it comes more from just a long-standing tendency—and thinking about the stakes—than a position of ideological purity.

**You're also much more out there in public than anybody from Signal has ever been before.**
Yeah. That's true. We're at a different phase of Signal right now, as well.

**How so?**
Well to begin with, Signal started 10 years ago as this virtuosic hacker project that was pushing against a dominant paradigm that was almost universally celebrated by everyone at the time.

**What paradigm would that be?**
Surveillance. The surveillance business model.

**Right. And what phase is Signal in now?**
Now Signal is established critical infrastructure for militaries, for dissidents, for journalists, for CEOs, for anyone who has private confidential information.

So I think we're in a different place,

where we need to be out there. We can't have our story told by proxies. It's time to define it for ourselves.

**Well, before we get to that story: You've been spending the summer in Paris. Why Europe? Why France? Is that a Meredith thing, or is that a Signal thing?**
It's a Signal thing. We're focusing on the EU, and growing our market, and figuring out who potential partners could be.

I think it's good for any tech company right now to be thinking, how can we be flexible, given that we're looking at a very volatile geopolitical environment.

**Are you saying you're looking for an escape route, in the event of a second Trump administration?**
It's more than that. There are a lot of possible futures on the table right now.

**Let me ask it this way: There's an election coming up in the US. Are you thinking about a new administration, Democrat or Republican, and the possibility that Signal needs to find a new home?**
My answer to that would be, I think we're always aware of shifting political sands. Given that governments in the US and elsewhere have not always been uncritical of encryption, a future where we have jurisdictional flexibility is something we're looking at.

**Does it really make sense to look for that kind of jurisdictional flexibility in Europe when Telegram founder Pavel Durov was just arrested in France? Does this give you pause about Signal's future in the EU?**
Well, to start: Telegram and Signal are very different applications with very different use cases. Telegram is a social media app that allows an individual to communicate with millions at once and doesn't provide meaningful privacy or end-to-end encryption. Signal is solely a private and secure communications app that has no social media features. So we're already talking about two different things.

And as of today [August 27, 2024] there are simply too many unanswered questions about Durov's arrest for me to give you an informed opinion.

On the broader question, let's be real: There's no state in the world that has an unblemished record on encryption. There are also champions of private communications and expression everywhere in the world—including many in the French government and in Europe.

Those of us who've been fighting for privacy for the long term recognize that this is a persistent battle, with allies and adversaries everywhere. Trying to prioritize flexibility is not the same thing as idealizing one or another jurisdiction. We're clear-eyed about the waters we need to navigate, wherever they are. We see a huge amount of support and opportunity in Europe.

**What does the US election mean for Signal, its operations, and its growth?**
Everything is up and to the right. I think general cultural sensitivity to privacy has never been more acute, and it gets inflamed—you see a lot of people joining—in moments of political volatility. So Ukraine used to be a market that was near the bottom. It's now one of our top markets, following the Russian invasion. That's just one example. We also see growth in response to things like what we call a Big Tech Fuckup, like when WhatsApp changed its terms of service. We saw a boost in desktop after Zoom announced that they were going to scan everyone's calls for AI. And we anticipate more of those.

Elections can be moments where that happens. But often, those moments are less for us to predict and more for us to be prepared for. Forty years of history seem to be happening every other week.

**Going back to your sense of Signal's new phase: What is going to be different at this point in its life? Are you focused on truly bringing it to a billion people, the way that most Silicon Valley firms are?**
I mean, I … Yes. But not for the same reasons. For almost opposite reasons.

**Yeah. I don't think anyone else at Signal has ever tried, at least so vocally, to emphasize this definition of Signal as the opposite of everything else in the tech industry, the only major communications platform that is not a for-profit business.**
Yeah, I mean, we don't have a party line at Signal. But I think we should be proud of who we are and let people know that there are clear differences that matter to them. It's not for nothing that WhatsApp is spending millions of dollars on billboards calling itself private, with the load-bearing privacy infrastructure having been created by the Signal protocol that WhatsApp uses.

Now, we're happy that WhatsApp integrated that, but let's be real. It's not by accident that WhatsApp and Apple are spending billions of dollars defining themselves as private. Because privacy is incredibly valuable. And who's the gold standard for privacy? It's Signal.

I think people need to reframe their understanding of the tech industry, understanding how surveillance is so critical to its business model. And then understand how Signal stands apart, and recognize that we need to expand the space for that model to grow. Because having 70 percent of the global market for cloud in the hands of three companies globally is simply not safe. It's Microsoft and CrowdStrike taking down half of the critical infrastructure in the world, because CrowdStrike cut corners on QA for a fucking kernel update. Are you kidding me? That's totally insane, if you think about it, in terms of actually stewarding these infrastructures.

**So your focus is on preservation of this role for Signal.**
Preserving and growing. This is not a sclerotic kind of museum piece. This is an adolescent animal that is about to double, triple in size. Our user base has been steadily growing, and I think it's going to keep growing with the geopolitical volatility of the world and a new generation that is much more hip to the perils of Big Tech controlling infrastructure.

HAIR AND MAKEUP: TAKASHI ASHIZAWA

My job is to make sure Signal has the room to do that and to make sure that people who need to be paying attention, who need to be paying up, who need to be putting their shoulder behind the wheel of this vision, are lined up to do that.

**As Signal becomes a mainstream app, what about that hacker scene that was once the core audience? It's become very stylish, among some of the hackers that I talk to, to say "Signal's blown; there's a backdoor" or "The intelligence agencies have cracked Signal. We need to move to my preferred, obscure, ultra-secure messaging platform." How do you answer that, and how do you live with this issue of proving a negative all the time, that there's not a vulnerability or a backdoor in Signal?**

I would push back on it being stylish among hackers. On the whole, we love and work very well with the security research community. You're talking about a few loud, callow security researchers, some of them "security researchers" in quotes. But it's very disappointing to me to see that kind of discourse. It shows, to me, a kind of abdication of responsibility.

Where I get really frustrated is when that over-claiming and selfish fame-seeking behavior collides with an information environment where there are state actors trying to move people away from private communication onto less private communication platforms. We have desperate civil society groups, desperate human rights groups, journalists, immediately calling us after one of those things goes viral saying, "Oh my God, is there a problem with Signal? We're moving all our people to some alternative"—which is less secure.

There are actual existential stakes here for people around the globe, 99 percent of whom can't actually validate random security researchers' claims but nonetheless are taking it seriously, because it's a life-or-death issue.

**I think we're talking in some part about Elon Musk here. He contributed to this recently when he vaguely alluded to "known vulnerabilities" in Signal in a post on X.**

It concerns me to see the Elons of the world jumping on that bandwagon. Elon's been a longtime supporter of Signal. He tweeted in 2021 he used Signal, right? He's been a fan. So I don't know what changed. What I do know is that, as far as we know, the claim was completely baseless. There's no serious report that backs it. But that was two nights of me not sleeping, just dealing with Twitter stuff because we had to take it seriously, because it freaked out a lot of people.

**As Signal becomes more mainstream, I increasingly find that I'm using it in completely trivial, everyday communications with people—sending them videos, sending them entire slideshows of images of my kids or whatever. And I keep thinking, I'm costing Meredith so much money right now.**

Andy, it is an honor. [*Laughs.*] It is an honor to send your slideshows and videos.

**But this is all very expensive for a nonprofit. WhatsApp, of course, would love you to just post as much data as you can on their platform. They can stomach the cost, because they're making money. But Signal—I worry, in terms of the cost of all that data, are you the dog that caught the car at some point?**

It's a net positive. Encryption requires a network effect. Our goal is that everyone can easily pick up their device and use Signal to talk to anyone else.

We're well supported. We are a nonprofit—not because we want to exist on coins thrown at us in a hat. We're nonprofit because that kind of organizational structure is, at this point in history, critical to focusing on our mission. In our industry, profit is made through monetizing surveillance or providing goods and services to those who do. There isn't a business model for privacy on the internet.

Signal is a nonprofit because a for-profit structure leads to a scenario where one of my board members goes to Davos, talks to some guy, comes back excitedly telling me we need an AI strategy for profit. Or another one of my board members comes in, gets really nervous that our revenue model, whatever it is, isn't bringing in something that meets our goals and says, "Well, maybe we can start collecting metadata. Maybe we can reduce the focus on privacy, because of course our primary objective function, as a traditional for-profit, is revenue and growth." And privacy in an economy powered by surveillance will necessarily hamper those.

So we're looking now at how we grow the model Signal is building into something sustainable. And the type of money we're talking about isn't huge for tech—we're pretty lean for tech. And how do we extend that model as a template for building infrastructure, applications, and alternatives to the concentrated surveillance business model at the heart of the tech industry?

**This is a very rude question, but on this subject of being lean, I looked up your 990, and you pay yourself less than some of your engineers.**

Yes, and our goal is to pay people as close to Silicon Valley's salaries as possible, so we can recruit very senior people, knowing that we don't have equity to offer them. We pay engineers very well. [*Leans in performatively toward the phone recording the interview.*] If anyone's looking for a job, we pay very, very well.

**It feels taboo to even be talking about this. But it really captures the weirdness of Signal.**

Well, look, it captures that we're doing what we can to build a model that works in opposition to a near-hegemonic model that we are up against. Right? It's going to look weird because the norm is not what we're about.

**I wouldn't imagine that most nonprofits pay engineers as much as you do.**

Yeah, but most tech is not a nonprofit. Name another nonprofit tech organization shipping critical infrastructure that provides real-time communications across the globe reliably. There isn't one.

This is not a hypothesis project. We have to do it now. It has to work. If the servers go down, I need a guy with a pager to get up in the middle of the fucking night and be on that screen, diagnosing whatever the problem is, until that is fixed.

So we have to look like a tech company in some ways to be able to do what we do.

**If I could get into the actual story of your career, you said in your initial blog post when you took the president role that you've always been a champion of Signal. I think you said you used RedPhone and TextSecure?**
I did.

**I tried those at the time, enough to write about them. But they were pretty janky! I'm impressed or maybe a little weirded out that you used them back then.**
But I was in tech. Right? All the cool people in tech were already using them.

**And you were at Google at that time?**
Yeah. I was with Google then.

**What was somebody like you even doing at Google, honestly?**
Have you ever heard of needing money to live and pay rent, Andy? [*Laughs.*] Have you heard of a society where access to resources is gated by your ability to do productive labor for one or another enterprise that pays you money?

**I get that! But you are now such a vocal anti–Silicon Valley, anti-surveillance-capitalism person that it's hard to imagine—**
I'm not anti-tech.

**Yeah, I didn't say that. But how did you end up at Google?**
Well, I have a degree in rhetoric and English literature from Berkeley. I went to art school my whole life. I was not looking for a job in tech. I didn't really care about tech at that time, but I was looking for a job because I didn't have any money. And I put my résumé on Monster.com—which, for Gen Z, it's like old-school LinkedIn.

I was interviewing with some publishing houses, and then Google contacted me for a job as something called a … what was it, consumer operations associate?

**Consumer operations associate?**
Yeah. What is that? None of those words made sense. I was just like, that sounds like a business job.

So I set up a Gmail account to respond to the recruiter. And then I went through, I think, eight interviews and two weird sort of IQ tests and one writing test.

**What year was this?**
I started in July of 2006. Ultimately what a "consumer operations associate" meant was a temp in customer support. But no one had told me that. And I was like, *What is this place? Why is the juice free? The expensive juice is free.* I'd never been in an environment like that. At that point, Google had hit an inflection point. They had a couple of thousand employees. And there was a conviction in the culture that they had finally found the recipe to be the ethical capitalists, ethical tech. There was a real … *self-satisfaction* is maybe an ungenerous way to put it, but it was a weird exuberance. I was just really interested in it.

And there were a lot of blank checks lying around Google at that time. They had this 20 percent time policy: "If you have a creative idea, bring it to us, we'll support it"—all of this rhetoric that I didn't know you shouldn't take seriously. And so I did a lot of maneuvering. I figured out how to meet the people who seemed interesting. I got into the engineering group. I started working on standards, and I was just, in a sense, signing my name on these checks and trying to cash them. And more often than not, people were like, "Well, OK, she got in the room, so let's just let her cook." And I ended up learning.

**What were you working on? I don't actually know the last job you had at Google, but it was not in customer support.**
My God, no. No. I founded a research group.

**So it *wasn't* a fantasy, the 20 percent thing. It sounds like you actually really lived that Google dream. You made those side hustles and explorations your whole job, eventually. This all sounds very pro-Google, pro–Silicon Valley. It's, like, the dream of every young person who wants a job at Google.**
If I only fucked with my own success, I would be an SVP at Google right now with five houses.

I was working with some of the smartest people I've ever worked with. I shared an office with the coauthor of the C programming language! And people were really generous with their time and expertise. So all of that was great.

And I can hold that in a balance with the fact that ultimately the business model, intentionally or not, is deeply toxic. And we've seen the derivatives of that over the past 10 years play out over and over and over again.

**Yeah. Not to make this sound like Dave Eggers' *The Circle* or something, but at what point did this utopia start to sour for you? How did you make this shift to who you are now and what you're doing now?**
I cofounded an effort called Measurement Lab around that time, the world's largest source of open data on internet performance. At the time it was a hypothesis project: Can we put some teeth on the net neutrality debate by creating a numerical benchmark for "neutrality" and begin to hold internet service providers to that standard? It was really where I cut a lot of my technical teeth, got deep into networking. We were able to show through this mass data collection, through years of work, that there were actual issues happening at interconnections.

So all of that was right around the time when machine learning was becoming a new hot thing.

There's an inflection point in 2012 that I'm sure you're familiar with: There's this paper that got published, called the AlexNet Algorithm, that basically brought a bunch of ingredients together and ignited the current AI moment after a long winter. What it showed is that with massive amounts of data and powerful computational chips, you could make old algorithmic techniques—techniques that dated from the 1980s—do new and impressive things.

**OK … I guess I maybe see where this is going.**

I am hypersensitive to data. I've been in the measurement wars. So I'm like, "Wait, what is machine learning? Oh, so you're taking trashy data that you claim represents human sentiments—or things that are much more difficult to measure accurately than the low-level network performance data that I was very familiar with—and you're putting that into some statistical model, and then you're calling that intelligence?"

I was like, "Wait, no, you can't do that." So that animated a lot of my concerns around AI.

And of course throughout this time I'm learning more and more about what the business model actually is. I'm situated in the technical infrastructure group, and what I began to realize is: That's where the money is. I'm looking at the balance sheet, the Measurement Lab server infrastructure, more than 10 years ago now, cost $40 million a year just in uplink connectivity.

It gave me a lot of sensitivity to just the capital involved. I'm like, "Oh, this is not innovation. This is capital."

**$40 million is basically Signal's entire annual budget right now.**

It's a little under that. But yeah, I think the capital intensiveness of tech and the consolidation of tech infrastructure was something I was sensitized to pretty early.

What was new to ignite this AI boom right then? It was the presence of massive amounts of data—training data and input data—and powerful computational chips, the more of them strung together, the better. Now, what are those? Those are exactly the affordances that have accrued to the early platform companies that have built out their social media networks, built out their data centers. With artificial intelligence, we're basically relaundering a lot of this shit through broken models that are giving Google more and more authority to claim intelligence when what they're actually doing is issuing derivatives of the shitty data they have. And what was AI used for? Why were they into it? Because it's really good at tuning ad algorithms, at targeting ads. It's not an accident that the three authors of this AlexNet paper were immediately hired by Google.

Through a number of paper cuts, I was becoming sensitized to the problems with surveillance, the problems with this mass-scale approach, the platform approach—where poison salts the earth for any other competitor—and the problem with that concentrated power.

**Was there any single turning point?**

No, there was no one moment. By 2017 I'd already cofounded the AI Now Institute. I was pretty well known in the field and within the company as a vocal critic. My job was very cool. I could say whatever I wanted. I thought I had found the magical formula.

Then I realized, yeah, everyone loves it because you're not actually in the room informing decisions. You're just providing, well, in the most cynical sense, a pretext that Google can point to and say, "We listen to heterogeneous voices across the spectrum. We're a very open company."

But in 2017, I found out about the DOD contract to build AI-based drone targeting and surveillance for the US military, in the context of a war that had pioneered the signature strike.

**What's a signature strike?**

A signature strike is effectively ad targeting but for death. So I don't actually know who you are as a human being. All I know is that there's a data profile that has been identified by my system that matches whatever the example data profile we could sort and compile, that we assume to be Taliban related or it's terrorist related.

**Right. Like, "We kill people based on metadata," as former NSA and CIA director Michael Hayden said.**

That's it, exactly.

Google had vocally, many times in the past, disavowed doing military work. Because yoking the interests of a massive surveillance corporation to the world's most lethal military—which is what the US military call themselves, not my term—is a *bad idea*. And the marriage between overclassification on the government side and corporate secrecy on the tech industry side would be a disaster for any accountability around the harms of these systems.

That was the point at which I was like, look, I can't make my reputation and my money on offering an analysis of why this might be bad without actually pushing back using a little bit more muscle.

**We're talking about Project Maven now, the DOD contract that led to your organizing walkouts at Google.**

I mean, it wasn't just me. I was somebody who put my reputation on the line and did a lot of work for this, but it was thousands and thousands of people within Google. It was a sustained effort. It was many of the most senior AI researchers coming out and saying "fuck this." One, it doesn't work. Two, I don't want to contribute to it. And three, this is a bad path to go down.

**What does it feel like to have been looking at that in 2017, and now not only is AI the buzzword of the moment but also we've seen evidence that the IDF is bombing Gaza based on the output of AI tools?**

Well, I don't feel like I was wrong! I mean, if being right were a strategy, we would've won a million times over.

I think one of the things we see in Gaza is the interlocking of mass surveillance and these targeting systems. The latter is reliant on the former.

In order to create data profiles of people, in order to even have the pretext of targeting them algorithmically, you first

need data. And Gazans are some of the most surveilled people in the world. That then becomes the fodder for training these models—however that's done—to determine that if a given data profile looks enough like the profile that's been flagged as a terrorist profile, you should then bomb them.

It's a tragic example of at least part of what we were warning about then.

**On this question of how surveillance and AI are intertwined: Do you have people say to you, "Meredith, please stick to your job, your focus is supposed to be privacy. Why are you talking about AI all the time? Aren't you the encryption person?"**

The short answer here is that AI is a product of the mass surveillance business model in its current form. It is not a separate technological phenomenon.

**When I go back and I listen to your congressional testimony on AI, you were talking more about the ability of AI to do scary things *for* surveillance. But what you're talking about now is the ways that surveillance provides the data and the infrastructure for AI. It sounds like a chicken and egg thing.**

Well, AI is the narrative. It's not the technology. Surveillance and infrastructure are the material conditions.

**So you're saying that AI and surveillance are self-perpetuating: You get the materials to create what we call AI *from* surveillance, and you use it for more surveillance. But there are forms of AI that ought to be more benevolent than that, right? Like finding tumors in medical scans.**

I guess, yeah, although a lot of the claims end up being way overhyped.

What I'm *not* saying is that pattern matching across large sets of robust data is not useful. That is totally useful. What I'm talking about is the business model it's contained in.

OK, say we have radiological detection that actually is robust. But then it gets released into a health care system where it's not used to treat people, where it's used by insurance companies to exclude people from coverage—because that's a business model. Or it's used by hospital chains to turn patients away. How is this actually going to be used, given the cost of training, given the cost of infrastructure, given the actors who control those things?

The more we trust these companies to become the nervous systems of our governments and institutions, the more power they accrue, the harder it is to create alternatives that actually honor certain missions.

**Just seeing your Twitter commentary, it seems like you're calling AI a bubble. Is it going to self-correct by imploding at some point?**

I mean, the dotcom bubble imploded, and we still got the Big Tech surveillance business model. I think this generative AI moment is definitely a bubble. You cannot spend a billion dollars per training run when you need to do multiple training runs and then launch a fucking email-writing engine. Something is wrong there. But you're looking at an industry that is not going to go away.

**So it's not a self-correcting thing. Is regulation the solution?**

Regulation could be part of it. Things like structural separation, where we begin to separate ownership of the infrastructure from the application layer, would perturb these businesses. I think meaningful privacy regulations could go a long way.

Stopping the collection of massive amounts of data, curtailing the authority these companies have claimed for themselves to define our world based on the data they collect: All of that becomes really interesting territory, because it's curbing the tributaries of infrastructural power that is animating this boom.

You can see Signal is doing that in some sense. We don't collect any data. We are effectively creating a system where, instead of all your metadata going to Meta, your metadata is going to no one.

**Yeah, but it's hard to point to Signal as the solution. You're an advocate for structural change while leading an organization that is so sui generis. How do those things work together? Is it that you're providing a model that hopefully other people will adopt? Because it's not like Signal alone is going to solve surveillance capitalism.**

No, no, no. Signal is not a solution to the problem. It is proof that we can do things differently, that there's nothing natural about the paradigm that exists.

The Signal model is going to keep growing, if we're successful. We're already seeing Proton [a startup that offers end-to-end encrypted email, calendars, note-taking apps, and the like] becoming a nonprofit. It's the paradigm shift that's going to involve a lot of different forces pointing in a similar direction.

We need to build alternatives, and

> "People have to use Big Tech because you can't participate in society without it, but that's not winning users. That's coercion."


this is something I'm working on with a coalition in Europe and folks in the US and elsewhere. But what does significant capital poured into building independent tech look like? How do you disarm the massive platforms, draw down their cloud infrastructures, the fact that they control our media ecosystem, the entire nesting-doll of toxic technologies, while building alternatives that actually interconnect the world?

What do communications networks that support this vision look like? What does an independent cloud infrastructure look like? How do we openly govern technologies that have been closed and captured by these large companies? And how do we do that at the level of actually building things? I'm really invested in that, because I think we're going to need it for the world.

**Does that mean that, in another 10 years, there's going to be Signal Search, Signal Drive, Signal whatever?**
We don't have to do everything. Signal has a lane, and we do it really, really well. And it may be that there's another independent actor who is better positioned to provide some of those services. As a nonprofit, we're not looking to poison the ground for others and do it all ourselves. We're looking for a teeming ecosystem of people who are actually innovating, not just providing financializable startup infrastructure to be acquired by Big Tech at some point.

**But still, Signal serves as a model for all of these things you want to see in the world. So what will Signal itself look like in 10 years?**
I see Signal in 10 years being nearly ubiquitous, almost like the power company. I see it being supported by a novel sustainability infrastructure—and I'm being vague about that just because I think we actually need to create the kinds of endowments and support mechanisms that can sustain capital-intensive tech without the surveillance business model. And I think we will see that new model take off enough that it's common sense to not talk about tech as Big Tech but to talk about a much more heterogeneous landscape with many, many more privacy-preserving options.

**That's a lovely vision. I guess basically no one but Signal has been actually making this work, though. So far the for-profit model just keeps winning with this one exception.**
Keeps winning what?

**Keeps winning users.**
So a monopolistic hegemony is a really good way to do that. But it does not win hearts and minds. And we have now fully turned in terms of public sentiment toward Big Tech. People have to use it because you can't participate in society without it, but that's not winning users. That's coercion. We're talking about lock-in, where other options have been foreclosed by state abandonment or monopoly. The demand for an alternative has never been stronger.

Signal is a heroic example. So I know that tech done differently is possible. I don't think it's fair to say other alternative models just haven't worked because people prefer Big Tech. No, these alternative models have not received the capital they need, the support they need. And they've been swimming upstream against a business model that opposes their success.

It's not for lack of ideas or possibilities. It's that we actually have to start taking seriously the shifts that are going to be required to do this thing—to build tech that rejects surveillance and centralized control—whose necessity is now obvi-

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# THE MIDLIFE NOT-RISIS OF MARK CUBAN

**Though he's soon to be out at *Shark Tank*, the billionaire has a massive new "disruption" in the works. He's certain it'll save lives.**

# MARK CUBAN

ENTREPRENEUR

LAUREN GOODE

SENIOR WRITER, WIRED

**MARK CUBAN WAS CONFIDENT HE** wouldn't be recognized in Boston Common. This was early June, and it happened to be the day of the Boston Dyke March, billed as an "anti-capitalist intersectional gender liberation" event. On our walk over to the park, people had bum-rushed the billionaire, angling for an autograph or selfie. Basketball fans on the street lit up at the sight of him—the minority owner of the Dallas Mavericks. But as we strolled the 50-acre stretch of green, considered the oldest public park in the US, Cuban the capitalist assured me that this crowd couldn't be less interested in him.

*"Mark Cubannnnn!"* a young woman screeched just then. She hurried over. Her friends joined. They were infectiously joyful, wearing strips of rainbow fabric fashioned into skirts, and they wanted a selfie. Cuban obliged, beaming like a dad.

Cuban, now 66, is at a turning point. Late last year he announced that the upcoming season of ABC's *Shark Tank*, the reality show that catapulted him to fame, would be his last. He also sold off his controlling stake in the Mavs. Was the tech entrepreneur and investor … slowing down?

The suggestion is offensive to him. He simply has a new obsession. In 2018, Cuban received an email that, to him, smelled like blood. A 33-year-old radiologist named Alex Oshmyansky was cold-pitching a pharmaceutical startup. He wanted to sell generic drugs for about as much as they cost to make or buy. Cuban was intrigued. He invested $250,000.

Within two years Cuban had invested so much that he owned the company. In January 2022 they began selling products as Mark Cuban Cost Plus Drugs. The name references, well, Mark Cuban, but also simple algebra: the base price of the drug, plus a 15 percent markup, plus a $5 pharmacy service fee, plus $5 in shipping. The company ships around 2,500 drugs, including ones for epilepsy, diabetes, and birth control, to consumers and pharmacies across the US.

What excited Cuban was the way Oshmyansky wanted to subvert the middlemen in America's famously contorted health system. Pharmacy benefit managers, or PBMs, sit between drugmakers, insurers, patients, and pharmacies. They're largely responsible for setting all kinds of details: what drugs a patient's insurance will cover, how much they cost, what slice a pharmacy gets. They claim to be money-saving heroes. But as a recent New York Times investigation found, PBMs can charge drugmakers and employers extra fees, effectively jack up prices for patients, and contribute to driving independent drug stores out of business.

When I meet Cuban for breakfast at a posh Boston hotel, the kind of place with soft jazz and gas fireplaces going even on the muggiest days, he's on a tear about PBMs. Their trade groups demonize drugmakers as badly as "the Republicans demonized Hillary Clinton," he claims. Cuban says he's not driven by any personal experience with health care. He simply saw a chance to rip into a dysfunctional industry.

Cuban is also outspoken about tech platforms and politics. He's an active Xer and doesn't hesitate to take on Elon Musk. He has alleged that Musk manipulates the platform's algorithm, and he took it in stride when Musk referred to him as a poop emoji. At the time of our breakfast, President Joe Biden was still on the ticket, and Cuban had stern messaging for his campaign team: Loosen up your stance on taxing crypto or lose the election. When we caught up a second time, in August, Cuban said he's impressed by the way Democratic presidential nominee Kamala Harris is punching back at the Trump campaign's aggressive rhetoric, and the "Bring Your Dad to Work Day" energy that Tim Walz exudes. And he likes that the duo might draw in moderate voters and tamp down some of the chaos the US has endured in the past eight years.

Although, Cuban himself seems to thrive in chaos.

**Lauren Goode: Things have been changing for you lately. You're leaving *Shark Tank*. You sold your majority stake in the Dallas Mavericks. Are you going through a midlife crisis?**

**Mark Cuban:** No, no, no. The exact opposite. It's more platforming for the next step. I don't look at myself and think, "I'm a man of a certain age, I've got to change what I'm doing." No. It's more like, I like to disrupt things. I like to play the game. I like to compete in business, and Cost Plus Drugs could be the biggest thing I've ever done.

**Why?**

If I said to you, Lauren, you could change health care in this country, would you do it?

**I mean, yes, given recent experience with doctor's appointments. It's all opaque. I have no idea what kind of bill I'm going to get.**

Nobody has any idea. Going back to 2017, the Republicans were talking about getting rid of the Affordable Care Act. I talked to various people who had no idea what they were going to do for health care. So I said, "OK, let me dig into it." I started working on various plans. I worked with the Rand Corporation to come up with some ideas.

Then, in 2018, I got a cold email from Alex. He said he wanted to do a pharmacy for drugs that are generic and in short supply, because there are various drugs, like ones for pediatric cancers, that people can't get, and it's insane and someone needs to make them.

I'm like, "That's a great idea, but you're thinking too small." This was around the time that Pharma Bro was going to jail for all his shit. [Martin Shkreli, who was convicted of securities fraud, had a company that bought the marketing rights for an antiparasitic drug and raised the price of a pill from $13.50 to $750.] I said to Alex, "Why can't we also buy out a year's supply?" He said it would cost us about $250,000. I'm like, "Are you kidding me? Only $250,000? Great." The problem is, you can't buy it, because somebody already locked it up.

**In terms of intellectual property?**

No. They bought the entire year's supply. [*The waiter comes and offers coffee.*] Can I get an oatmeal with just raisins? Nothing else.

**That's very specific, just raisins.**

Yeah. I have no willpower, and if it's in front of me, it's gone.

**Speaking of gone … so someone locked up the drug.**

Right, they went to the manufacturer and got a de facto exclusive. Because if there's only 100 or so people that use it in a given year, they can jack up the price. I thought it was fucked up that could even happen. I started digging further.

The biggest problem isn't the care itself, and it's not the pharma side. The pharma manufacturers are perceived as bad guys because they're the ones with the patents, but they're not the bad guys, generally.

**What do you mean by that?**

Because your insurance company, whoever it may be, uses a PBM, a pharmacy benefit manager. The PBM has negotiated with a pharmacy what the reimbursement rate is. Except they basically said, "Here's what we're going to reimburse you." [*His Apple Watch buzzes.*]

**You can go ahead and check that.**

It's my son. [*Speaking into watch.*] We'll do a late lunch. Don't worry about it. Go ahead and have fun. [*Back to the interview.*] He's playing basketball.

**Nice.**

So, with the PBMs, there's no negotiation. Particularly for the small independent pharmacies, they take it or leave it. And: "Oh, by the way, you are not allowed to say anything about this contract at all." Period. The number one rule of health care contracts is you don't talk about health care contracts. So instead of breaking even, the pharmacy might lose $20 to $30 on every brand subscription they're doing. The idea is, they'll make it up on toilet paper and other stuff. Well, that doesn't work.

**And the drug manufacturer?**

The PBMs also negotiate with the manufacturers, but they lose out as well. They have no idea who is using their medications, what the demographics are, what the adherence is. So the PBM will offer to do analysis for them, and then *sell* the manufacturer access to the data for their own drug.

Then the trade association for the PBM says, "Look at the bad guys!" It's so convoluted and opaque.

[Greg Lopes, a spokesperson for the Pharmaceutical Care Management Association, a trade group, told WIRED, "PBMs have a proven track record of securing savings on prescription drugs for patients." He added that drug companies "are solely responsible for setting and raising prescription drug prices."]

**OK, so you saw how these entities bought up drugs and controlled the market. Why didn't you, a billionaire, take that approach with other drugs? Why didn't you say, I'm going to buy all the insulin in America?**

Well, we looked at manufacturing insulin. We developed our own glargine [synthetic] insulin, and I spent $5 million or more, I don't even know. But that was right when Biden made sure Medicare plans were covering insulin for up to a $35 copay. So it made no sense to do it at that point.

**You told Texas Monthly that you don't care if you don't make a fortune off of this. Is that still true?**

I want to make it so it's self-sustained. I don't want to subsidize it the whole time. But I don't need to make money.

**Do you see Cost Plus Drugs as altruistic?**
No. I see it as fun with a huge impact. Altruism is like, "Great, I feel good because I'm helping people. I gave money and *da-da-da-da-da*." Disrupting an industry that everybody hates, that's *fun*. I'm getting emails and letters, if not every week, every two weeks, saying, "Oh my God, my grandma's alive." I just got a note from someone who wrote, "You saved me $15,000 a year on my cancer medication. I would be dead if it weren't for you."

**What's interesting is—and I'm not going to say midlife crisis—it does seem like you're at least thinking about your legacy now.**
But if I was 25 and this opportunity came up—

**You'd still do it.**
I'd do the same thing. The difference is I would probably try to make as much money as I could because I'm only 25 and I'm trying to establish myself. Now I don't need the money. My next dollar is not going to change my kids' kids' kids' kids' life.

But it does take a lot of time and emotional energy. It takes a lot of work to learn all this in a few years, enough to turn a whole industry around. That's what people are most surprised about. I walk in the door and I'm telling the CEO of a major company, "You're an idiot because I've studied your business and here's what's wrong." [*The waiter arrives with our food.*]

Thank you so much. See, the other part of this is I track everything I eat in MyFitnessPal. I think my streak is up to 3,600 days.

**How big do you want Cost Plus Drugs to be? How are you thinking about scale?**
We'll sell every drug we're legally allowed to sell. But scale isn't so much about size, it's about disruption. If I do my job, that means we've disintermediated those PBMs.

**What about the part of your business that manufactures drugs, will you grow that?**
We manufacture drugs that are on the FDA shortage list and are injectables. There's an FDA drug-shortage list that hospitals can't access but the companies can, so they jack up the price.

**How are you approaching GLP-1 drugs, like Ozempic and Wegovy?**
OK, so that's an interesting question, because GLP-1s are on the shortage list. As long as the patents are valid, there's a rule that says if it's on the shortage list, you're allowed to make it. So companies can manufacture them, and that's why you see some companies starting to sell them at a lower price now.

That's also why you see some GLP-1 makers invest huge amounts to expand their capacity, because they don't want to be on the shortage list. It's unlikely those drugs will stay on the shortage list for long, so we don't make them.

**I have to imagine manufacturing your own drugs from scratch is like making silicon chips—a multiyear, multibillion-dollar investment to spin up your fabs.**
Same thing. It's multiyear. It's not multibillion, but it's all robotically driven. Right now our capacity is about 2 million vials a year.

**How long are you going to stay with this?**
Until it's fixed. I want to say I fixed the health care system. Can I do it? Maybe. Is it 100 percent? No. Is it greater than 1 percent? Greater than zero? Yes.

**On the Trevor Noah podcast, you talked about how if you'd done something else in life you'd probably still be successful because of your work ethic and curiosity. But you've also gotten incredibly lucky.**
And I'll be incredibly lucky here too.

**Do you think we should have billionaires?**
Yeah, of course.

**Why?**
Everything's relative. "Millionaire" used to be inconceivable. When I became a billionaire, a company with a $5 billion or $10 billion valuation was huge. Now there are trillion-dollar companies. And I guarantee you, those people are going to be a lot smarter than the government.

**"You can't be president and change health care. As an entrepreneur you can change anything."**

**The billionaires are?**
The 1 percent who figure it out and are able to create something that's of value, yes. There's *Atlas Shrugged* for a reason. "Who is John Galt?" was a saying for a reason. There's a point of diminishing returns. Those people in a position to make something or build something, whatever it may be, aren't going to all of a sudden say, "Well, it's OK that I can't be rewarded for that."

As an entrepreneur, I can create things and get rewarded and reinvest in other companies, like I did with Cost Plus Drugs. So while the money seems obscene in a lot of respects—and I understand that completely, I couldn't even spend the money that I have—without it I couldn't invest in the things that I invest in, the hundreds of entrepreneurs that I have backed. I couldn't do Cost Plus Drugs.

**Do you think that billionaires should be taxed more than they are now?**
Not on unearned income or on capital gains.

**The majority of Americans support a wealth tax on the very rich. It's one of the few things that people are aligned on.**
If there's a net-worth tax there would be no Cost Plus Drugs, because I wouldn't know what my tax is next year.

**Could you pay your taxes either way? You shared a tweet in April that showed you owed $275,900,000 in taxes this year.**
I couldn't. Because who carries that much cash?

**Are you still a libertarian?**
Not so much anymore.

**Why is that?**
Things change. This country has 110 million more people than it did in 1980. And there are all these policies that have been put in place.

Would I like less government? Yeah, I would like less government. Would I like a smarter government? Even more so. Would I love to see government as a service so fewer people have to do the same bureaucratic work over and over again? Do I think AI will be smarter than 99 percent of these people doing the rote bureaucratic work? Yes, I do. Do I wish that we had anybody who understood that and was trying to propose it and implement it? Yes. That's part of being a libertarian.

But you can't go from where we are to *there*, in a direct line. It's impossible.

**And you've said you're not going to run for office.**
No, hell no.

**Why not?**
Who would put themselves through that? I can do more from the private sector. You can't be president and change health care. You've got to get Congress behind you, and this, and that. As an entrepreneur, you can change anything. Jensen Huang, what he's doing with Nvidia, he can pretty much define what's going to happen by how he prices things.

**Do you think Nvidia's at its top?**
Not yet.

**I know you don't want to talk about Elon, but you've been pretty outspoken against some of his ideas around DEI. What drives you to speak? You know the reaction you're going to get on Twitter.**
That's the whole point. It wasn't an Elon issue, it was a platform issue.

**Explain that.**
He who controls the algorithm controls the platform—controls that world, that community. And Elon has built, X has built, a very strong right-leaning community. They're fun to fuck with.

**That doesn't seem exactly like the best reasoning for speaking out about diversity and inclusion.**
I'm not *just* taking a position to fuck with them. It's something I believe in. But at the same time … look, I don't do a whole lot of interviews. During the last election cycle, I didn't do a lot on CNN or MSNBC. I did a bunch on Fox. I don't need to preach to the converted.

**It seemed like you went out of your way to say that you're not hiring solely based on diversity.**
No, you can't. You can't hire less qualified people, because that's business suicide. But you can go out and find the really, really smart people who aren't being discovered. That's the mission: to look where other people are not. Because there's some kid that's smart as fuck, that's living in an urban area that may not have the same opportunities as other people. And no one's looking for him. You should look for him. That's always the best reason.

**You mentioned that AI will affect drug manufacturing and rote bureaucratic jobs, but it's also changing hiring, right? AI is going to screen people. It's supposedly smarter, but it could be discriminatory too. How are you thinking about AI?**
So I'll give you an analogy. Who would you trust more to take you three blocks, a Seeing Eye dog or a full-service, self-driving car?

**Google Maps.**
Well, no. If you were blind, let's say.

**Oh, a full self-driving car. I actually really like the self-driving cars. I take them in San Francisco.**
I would trust the dog.

> “Everybody’s going to have their own model. Everybody’s going to be immortal in a certain sense.”

**Why?**
Because a dog can sense issues. Nothing about a self-driving car understands what’s adversarial or not. If it hasn’t seen it, it has no idea. Whereas a dog is going to understand. Take a puppy. We have a mini Australian shepherd. I can take Tucks and just drop him in a situation, and he’ll figure it out quick. I take a phone with AI and show it a video, it’s not going to have a clue. And I don’t think that’s going to change for a long time.

**How long?**
Ten years.

**Why do you think that is?**
Because wisdom doesn’t come with text.

**I literally just saw you do an ad for Google’s Gemini AI tool.**
It helped promote Cost Plus Drugs. That’s all I care about.

**But in more consequential scenarios, you think AI has a long way to go.**
I think smart puppies are smarter than AI is today or in the near future.

**So when you look at companies like OpenAI, do you think they’re overhyped?**
Not at this point. I don’t think any of them are overhyped. But a lot of things are going to change. The processors are super expensive. They’re not going to be super expensive forever. The efficiency of training and building models is going to change. Everybody’s going to have their own model. There’s going to be millions and millions and millions. Lauren will have her own model.

Everybody’s going to be immortal in a certain sense. So if you keep all your emails and interviews, or your parents keep it for you from the time you’re a kid—your first-grade papers, your pictures, all the things kids do—now you have little Lauren LLM. By the time Lauren’s 11, that’s probably going to be her best friend.

**I do think building an AI version of yourself is increasingly going to become a part of people’s end-of-life planning or legacy thinking. But I also think it gives us a bit of main character syndrome. As I think about my own life, do I need that stuff? Does anyone?**
It’s not that you need it. But look at social media. Everybody’s already a brand.

**Right, we all think about how we’re going to be perceived, but is that a good thing?**
In the big picture, no. Particularly not for kids. With my kids, there is no balance. That’s all they know. Would I prefer they didn’t have that? Yes. Just because playing and going outside and connecting is different.

**Yeah. Our curiosity had to be fed in different ways.**
That’s the right way to put it.

**And I had a lot more alone time, which I kind of liked.**
You might’ve read. I used to read a lot, and tried to teach myself the guitar.

**And I played basketball for years and years. That was a community.**
And so, now …

**Very online.**
Yup.

**You said something once about how the boomer generation—**
Yeah, how it was a disappointment.

**Had a good rep for a while.**
Sex, drugs, and rock and roll was a great start. And protesting the Vietnam War.

**And now you call it the Fox News generation. I’m wondering if you think there is an antidote to that.**
You buy Fox News.

**Would you do that?**
If I had enough money to do it, which I don’t, I’d buy it in a heartbeat.

**Explain that to the readers, who are like, how does he not have enough to buy Fox?**
What’s the market cap of Fox?

**Let’s see. Well, you’d also have the whole Murdoch heir thing to deal with. But putting that aside, it’s $15.6 billion right now.**
And you’ve got to pay at least 50 percent

premium. So now it's $22 billion. And then you've got to make all the changes, so that's another $2 billion. You can sell some things off. So maybe it's $15 billion, $20 billion net. I don't have $15 or $20 billion in cash sitting around.

**Short of buying it yourself then, how would you fix something essentially like propaganda?**
Too late.

**That's dire. Why don't you buy Twitter?**
He wouldn't sell it.

**What if you convinced him it was his idea?**
I wouldn't know how to do that.

**Would you, in a perfect world, consider buying Twitter?**
Yeah, for sure.

**Would you please, for the love of God, buy Twitter?**
I wish I could. There's no reason for him to sell it.

**What have you been wrong about?**
Oh, a lot.

**I remember at least two things from when I interviewed you many years ago. One, you were big on movie theaters. It was after the financial crisis, and you were sure people were going to come back to theaters. You owned Landmark. Do you still own that?**
No, I sold it. Before the pandemic. Thank God.

**Smart.**
Lucky.

**We also talked about 3D and home theater, and you were bullish on it. I never really thought people were going to sit at home with 3D glasses on.**
No, I don't think I was … I liked it as a value add, right? I thought it created a new entry point for people to buy something. I didn't think it was going to revolutionize anything.

**OK, so, bigger things: What have you been wrong about?**
Donald Trump. I thought there was no chance he'd get elected.

**Why did you think there was no chance?**
Because I know the guy.

**Do you think he's going to win again?**
I hope not. I don't think this election is about policy at all. I think it's about trust and comfort, and that's why the double haters—people who don't like Trump *or* Biden—are now going to go for Kamala. She and Walz are both somebody that if, you know, you invited them to dinner, it would be a comfortable, fun family dinner, right? You wouldn't feel threatened. You can't say that about Donald Trump.

**You've said before you don't give money to PACs or politicians. Is that still the case?**
Correct. I'm helping Harris vocally. But I do think she's going to have to swing more moderate on certain issues.

**Like what?**
Like crypto.

**What about gun laws? Or abortion rights?**
I'm talking only on the financial side. And the reason I think crypto is so important is—look, I've seen a variety of surveys, so who knows exactly what's right. But kids under the age of 40—let's say kids, even though they're adults—a lot of them own crypto.

**But infinitesimal amounts?**
That's the whole point. You put up 50 bucks, 20 bucks, 10 bucks and you buy some dogecoin or bitcoin, and that's kind of your lottery ticket that you're hoping will increase your net worth, because you can't save money elsewhere. When I was a kid, we collected comic books and baseball cards. It was fun to get your Superman comic and talk to your friends about it. But you knew, because you'd heard the stories, that the original Superman comic book was eventually worth $10,000, and so you're thinking, wow, this could be worth something.

Now, in today's age, you download an app, you get on Reddit, you're part of that community. If dogecoin went from less than a penny to $0.18, and you've bought $10 worth, that's a substantial change to your net worth as a 20-year-old kid living at home with your parents. Let's say some material percentage are people of color and they don't have as many opportunities. They're not in the banking system. And now someone [in the government] says, "Nope, those are all securities, and we're going to make all that worthless," well, that's going to affect them.

**You were pro-FTX.**
I wasn't pro-FTX. I thought Sam [Bankman-Fried] was smart. I didn't talk to him that much. I talked to him one time.

**And you didn't get any vibes?**
I never met him personally or anything like that. But as big of a crook as he turned out to be, if the SEC had put in the same collateral requirements and separation of funds requirements that Japan has, he wouldn't have been able to steal it.

**What's your biggest concern about Donald Trump?**
When I talk to Trumpers, I'm like, "Look, the guy rips off hard-working Americans and takes pride in it. Is that who you want? The guy doesn't believe in climate change. Are you 100 percent certain about climate change? No? Well maybe there's a 1 percent chance. Are you willing to take a 1 percent chance that your kids are fucked, your grandkids are fucked?"

**Is there anything that makes you feel your own mortality these days?**
Oh, yeah. Every day that I wake up and I'm sore. I do the whole thing, I get my blood checked every three or four months, and that gives me benchmarks. But it makes me feel my mortality, for sure. You get older. Your parents die. Mortality is all around you.

But one thing I learned from my dad: When you hit 40, you think you're old. When you hit 50, you think you're old. When you hit 60, you think you're old. But when you look back at 40 ...

**Looks pretty good.**
It looks really good. So that's kind of the attitude I take. When I hit 80, I'm going to say ... 60 looked really, really, really good.

**Maybe the reason I keep asking about a midlife crisis is because maybe I'm having one. And maybe we shouldn't call it a crisis anymore.**
Yeah, I mean, you can call it whatever you want, but at various points in your life you go through that.

For me, right now, I don't need to be more famous. I don't need to be wealthier. Now I think more about my kids and their health and what could go wrong there, which terrifies me every day. It's not so much my own mortality that scares me. It's the people I love.

You can get past your own midlife crisis, your own mortality. Because you get to the point where you realize, "Hey, if I have 20 years left, 30 years left, that's good—and I'm not going to fuck it up."

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**LAUREN GOODE** *is a senior writer at* WIRED. *She interviewed Nvidia CEO Jensen Huang in issue 32.05.*

BY **KATIE DRUMMOND**

PHOTOGRAPHS BY **SHAYAN ASGHARNIA**

# THE ULTRA COOL CASH GRAB OF BOBBI ALTHOFF

**She went megaviral after *that* Drake interview.**

**Now the TikTokker turned podcaster is out to prove her worth—by being herself.**

# BOBBI ALTHOFF

PODCASTER AND INFLUENCER

# KATIE DRUMMOND

GLOBAL EDITORIAL DIRECTOR, WIRED

**FOR SOMEONE SO NEW TO CELEBRITY**, Bobbi Althoff sure is good at it. Gliding into a cramped, bohemian studio space tucked into the 14th floor of an office tower in Los Angeles' Arts District, Althoff is well dressed, well coiffed, and appropriately entouraged—she arrives flanked by a makeup artist, a PR rep, and a woman shooting "BTS" (behind-the-scenes) footage of this interview for Althoff's social media accounts.

Althoff, who's 27 years old, just has *it*, that indescribable presence, that gravitational pull. A person who makes sense as somebody that everybody knows. And a lot more people know Althoff now than they did a few years ago: In 2021, her relentless attempts at taking off on TikTok finally stuck, and she established herself as a viral, albeit subversive, member of Mommy TikTok. That's also where Althoff honed the awkwardly funny, deadpan persona that became her calling card and led to *The Really Good Podcast*, which is now in its third season.

When it launched in April 2023, the show, which sees Althoff interviewing a grab bag of mostly non-A-list celebrities—everyone from Saweetie and Meghan Trainor to Bobby Flay and Mark Cuban—quickly took off and turned Althoff into an online lightning rod even before she spent an hour in bed with Drake. That July 2023 interview drew over 10 million views on Althoff's YouTube channel. And then things got a little weird: What we *know* is that Althoff pulled the interview offline and both unfollowed each other on social; everything else is conjecture and online conspiracy, mushed together and then shoved through the internet meat grinder. The Drake interview and its ensuing chaos also nudged Althoff over some mythical line, one that separates "famous person, on the internet" from "famous person, period," someone whose personal and professional exploits are tracked by TMZ and written up by People.

And they had quite a bit to write about: persistent rumblings that Althoff's fame was preordained by industry connections, that she sleeps with her show's guests (see above), and most notably, in February of this year, that she was divorcing tech writer and executive Cory Althoff, with whom Bobbi shares two daughters. Somewhere in that frenzied ascent, there's also been a shift: In more recent episodes of *The Really Good Podcast*, the disinterested, deadpan Bobbi has faded away, and a new Bobbi—who, as I would find out over our two hours together, is both consistently interested and convincingly sincere—has taken her place. "The character was a way of me leaning into how uncomfortable I was," Althoff tells me. "As I've become more confident in what I'm doing, it's easier for me to be comfortable."

Indeed, little of Althoff's signature brand was on display during WIRED's photo shoot (even when we forced her to stand behind a wall of dangling plants or pose thoughtfully next to a filthy bathroom) or the subsequent on-camera interview we did right after that. Even though it was 95 degrees in Los Angeles and the studio where we hosted Althoff didn't have air conditioning. And the men running WIRED's video shoot smelled like it. And *then* they ordered takeout. Even as we filmed the first part of the conversation you're about to read—the moment you'd expect Althoff to become the "Aubrey Plaza knock-off with no charisma" that Redditors gripe about—while the sweat cascaded down my back and the aroma of a production member's *lobster grilled cheese panini* wafted onto set, Althoff stayed decidedly *out* of the character that launched her career.

After all, she doesn't have much use for it anymore. In addition to her podcast, Althoff recently inked a development deal to produce, write, and star in a TV comedy, which she describes as "a cross between *Dave* and *The Office*," based loosely on her own rise to fame. She has stopped reading nasty comments from Reddit trolls and says she has found a supportive community among LA industry types who can relate to life in the online spotlight. Not to mention that Althoff has finally realized the singular goal she's been chasing since childhood, one that's given her the freedom to chart a course on her own terms: Make money. *A lot* of money.

**Katie Drummond: Who are your fans?**
**Bobbi Althoff:** Everyone.

**Everyone?**
When I started, it was just moms.

**Because you were a Mommy TikTokker.**
I was.

**Tell us a little bit about the start of your rise.**
I believe it was right after I had my first daughter. I posted my first video in November of 2020 if I'm not wrong.

**And correct me if I'm wrong, but there was a banana. You were dancing with a banana.**
This is not the first time I've been told this in an interview, and every time I'm always blown away, because that didn't go viral. That was just a video I put up that had barely any views. It got a million views, but it was a slow million.

**A million is a lot of eyeballs on someone dancing with a banana.**
But the videos it was surrounded by had at least 5 million. So that was not ...

**It was not your claim to fame.**
I don't claim it.

**OK. So as a Mommy TikTokker, what is Bobbi's claim to fame? What was your big break?**
I started doing this thing where I was calling my daughter Richard. People were making fun of her real name [Luca] being a boy's name. Her real name is unisex, is that the word? So then I was like, I'm going to take this a step further.

And that was the start of me just making ... I wasn't making mommy content per se. I think I even called it "a parody of a really bad mom" on my bio at the time. And I would just parody the craziest things that I could think of, like, "Oh, my daughter's teeth are growing in and they're crooked, so I'm taking her to get braces," and just things that were obviously not true.

**She's a baby?**
Yes, she's a tiny little baby. She didn't even have full teeth, they were just barely grown in.

**You can never start too early.**
Exactly. Moms got it. Because a lot of people hate on that kind of mom. There are some moms that are very—no hate to them from me—but are very into dressing their kids, and their aesthetic. So I was just like, let me take this a step further. But I did, to answer your first question, go on TikTok with the intention of growing my page, because I was like, there's just no way that I don't make money in my life. I need to figure out something.

**How did brand deals on TikTok work for you, and how much money were you making?**
Last July I was making around $250,000 to $300,000 a year. From brand deals on TikTok and from the Creator Fund. I was doing pretty well for myself. I thought I had really made it. I didn't know there was a level above that. I was like, "I did this, guys."

**You also became the subject of internet conspiracies. And one of them—there are many, many Bobbi Althoff internet conspiracies—one is that you were an industry plant.**
Yes.

**I barely know enough about the industry to know what that means. I think it means something like: You were so well connected in LA that you were able to get celebrity guests on the podcast, and that's how you were able to become so successful so quickly.**
Early on I was like, is that a joke? What is an industry plant? And I would just play into it. I was like, there's no way people actually think that. But then I realized people actually think that.

I've been a hard worker for my whole life. In high school, I would go with my parents to the houses my dad was working on, and clean them with my mom. When I was 16, I got my first job. I became friends with managers and convinced them to give me extra hours so that I could have extra money. Even during Covid, I was selling face masks on Etsy.

This interview has been edited for length and clarity, combining on-camera and off-camera portions. A version of it can be found on WIRED's YouTube channel.

**That's a hustle.**
Oh, I was eight months pregnant and I had a sewing machine my mom bought me. So when the CDC said, "You have to wear all-cotton face masks," I was like, "This is my time to shine."

**Did you shine?**
I made $3,000.

**Total?**
Yeah. That was like 300, at least, face masks. I would stay up all night and just sew.

**So, you had a Mommy TikTok era, and then you launched a really good podcast called *The Really Good Podcast*?**
Side note, I feel like you should host one of my episodes, because you're giving it to me ...

**If you pay me $10,000 to $15,000.**
I won't be doing that.

**It's like a brand deal.**
No.

**I'm helping with your brand.**
OK.

**So you moved into the podcast world. You paid people $300 to help you get your first guests.**
Well, so the way that my podcast started was, I felt like $250,000 is great and all, but it's hard to come up with content

with just me every day. Every day I'm having to go viral. No matter how long you've been doing it, going viral and keeping viral is not easy. So every day I was still posting 10 videos; even when I had 3 million followers, some of those videos would completely flop and get 50,000 views. And then I saw this video of a girl talking about how much she made from her podcast, and I think I mentally decided that she made at least $300,000 a year on her podcast alone. And I was like, that's what I need to do next. I need a podcast. So I started it. It was first called *So You're Rich*.

**Was it?**
Yeah. And I was interviewing rich people.

**Money is a theme that comes up on your podcast a lot. When you sat down with Mark Cuban, you relentlessly asked him for money.**
Begged him for it.

**Begged that man for money.**
I did do that.

**I believe you asked to cohost a birthday party together. It was very funny. But it feels like money is this constant subject for you. And I was wondering where that comes from and whether that is deliberate.**
I don't think it's deliberate in the sense that I set out to talk to everybody about it. I mean, as someone who grew up without money and with my parents always struggling … it's always been a big deal in my life.

**Can you define that struggle a bit more? What kind of financial struggle are we talking about?**
When I was 7, we moved from LA to a place called Perris, California, and my mom didn't want me to go to the schools where we were, so she put me in the schools in the middle-class neighborhood. It was great and all, but the difference was that everybody was middle-class there. And I kind of wish she kept me with the people who were in my class. Because I was always worried about money. In my house, it was always a gamble whether our phone worked, whether the bill was paid, whether any bill was paid. And the number of times I would go grocery shopping and the card would get declined. Anytime a card was swiped, I knew that there was a 50-50 chance this card was going to go through.

My parents were constantly fighting every single night, really fighting about money. And it was just such a struggle. I wanted it so bad. And I remember turning 16 and being so happy I could get a job. At times, my dad would just come into my room and be like, "Hey, can I borrow $20?" And it's like, for a man to have to ask his 16-year-old daughter to borrow $20? Money's always been on my mind.

**So the podcast, when did it turn into *The Really Good Podcast*?**
After the first episode.

**Oh, OK. It didn't last long.**
No. So the team that I was with at the time, not going to call them out or anything. They're great people.

**But you fired them.**
No. I sent them my pilot of it and I got an email, a thread that was sent between the company, not meant for me to see. And they were like, "This is so bad. This is horrible. This is not funny. I see what she's trying to do, but it's just not funny." So that's when the idea was born. This is not going to just be a podcast. It's going to be *The Really Good Podcast* and you guys are going to … this is going to be good.

So I was DM-ing every person I knew that had a following, and then I ran out of people. So then I started a thing where I'd be like, "If you comment [on a celebrity's account] and that leads to them being on my show, I'll give you $300." Funny Marco was the first one, I think, who somebody tagged. And I was like, OK, if this comment leads to me getting him, then I'll give you $300.

And he did it. That one went crazy online. And from there, I believe that Drake saw the clips of that one.

**I was going to ask you, that Drake interview was a year ago now. Did you feel at any moment you had built something that you couldn't control anymore? Do you know what I mean?**
Yeah.

**You lose control of how you are able to show up as a person, right?**
There was a moment in my life where I could walk in places and no one was coming up to me. Or if they were, because of TikTok, moms would come up to me. I would still be able to live my life as normal. And then there was definitely a moment where everything was different. Where I'm like, oh, paparazzi want to take photos of me now. Or if I do stuff, it's making news. And that was definitely a huge, crazy thing. I don't think it happened suddenly, because I don't really remember a moment. It just slowly happened after I interviewed Drake. Obviously that was so huge.

But I have no complaints because I've dreamed of this life. I remember as a kid doing interviews in the mirror by myself, dreaming of this moment right here where I'm getting interviewed by you.

**You dreamed of being interviewed by WIRED magazine?**
Exactly.

**Yeah. Do you read WIRED?**
No.

**OK. And how much money do you make now?**
I don't know. You'd have to ask my business manager.

**One thing about celebrity, and I would say online celebrity in particular, is that it is fickle, right? It is finite and unpredictable and unstable. I have a sister who's a lawyer. She's worked at the same place for 15 years. It's this very stable career. You have chosen a very unstable pathway. How do you stay relevant when you're thinking about TikTok or YouTube or platforms where, with the switch of an algorithm, all of a sudden you're not relevant anymore?**
So I will say that I wasn't a lawyer before, so it wasn't like I was ...

**Well, fair. You weren't choosing between the two.**
It wasn't like, be a lawyer and have a stable career or ... It's not like I had another stable option. I graduated from community college. My family has no money. There was no stable fallback plan. It was just work hard and keep working hard. And I know that this career is not like a lawyer or not like a doctor. But there is skill to it, and I think a lot of people don't recognize that there is a skill to what I do, and there's a lot of work that goes into it.

And even in the last year, there have been times where I'm down and up and down and up, and I know how to climb back up, and I know how not to let things get to me. But at the end of the day, if I had to go back and work at Jersey Mike's again to support myself, I'll make your sandwich for you.

**And let's say in 10 years we do a follow-up story on you. And it's not at Jersey Mike's.**
OK.

**Let's say it's a different future where this continues to work, and you've translated the online fame into *x* thing. Where do we find Bobbi Althoff in 10 years?**
Having a late-night show, or I would love to get into acting, not like dramatic acting. I don't think I'm ever going to be ... I can't even think of an actress right now.

**Like a Meryl Streep.**
Yeah. No, that's not going to be me.

**You're no Meryl Streep.**
No.

**I came here today expecting Bobbi Althoff "in character"—and you've said it before, that you are playing a character, right? You are in character on the podcast, and then you go out of character and have your real life. Actually, though, you are way more kind and articulate than I thought that the "in-character version" of you would be. You've basically dropped the persona. Can you tell me about that transformation?**
Especially when I created season 3, maybe even when I started season 2, I let myself be a little bit more of myself. My later episodes are more me being just myself and being more conversational. As I've gone on, it's been broken down a little bit more, and now it's just kind of a blend.

That's why I want to get into something bigger, like acting, because then it'll be obviously scripted and in character all the time. When I started off, I was incredibly uncomfortable because I didn't know what I was doing. So the character is just super awkward. Now as I've become more confident in what I'm doing, it's easier for me to be comfortable. I think the character was a way of me leaning into how uncomfortable I was.

**Because you are a shy person.**
I'm very shy. But especially when I feel, I don't know if *insecure* is the right word, but not confident about what I'm doing. And when I started the podcast, I was like, I don't know what I'm doing at all, I can't believe you're even sitting with me. The people that would sit with me, I'm like, "Oh my god, you're sitting with me."

**I'm also very shy. And I work in this job where I need to be on, a lot. And so I turn on. And then I turn off. And I find the "on" part really exhausting. And I was wondering when I was getting ready to meet you, whether you are that way too. Are you an introverted person who finds it really difficult to turn it on and then you have to recharge?**
I don't think I ever turned it on. You know what I mean? I embrace my "introverted, I don't know what to do right now" persona. I embrace how uncomfortable I am and embrace how awkward I am. Because anyone who knows me in real life and is friends with me in real life knows my social anxiety is through the roof. Even when I walk in here, I'm like, I want everyone to not think I was rude or I want to be nice to everyone. I'm like, "Oh my god, did I shake his hand? I shook his hand. Did I shake his?"

**For someone with social anxiety, who cares a lot about making people happy, I can imagine it would be very hard to do the work that you do on the internet if you read the comments.**
Mainly I don't read comments outside of my pages. For the most part, my comment section is full of so many positive people that it actually just motivates me to keep going. And the people that I encounter in real life that come up to me are so positive. It's obviously very hard. Reddit is ...

**I checked out some Reddit on you.**
Yeah, I haven't looked at that in a year.

**You don't need to start now.**
Oh, and I will not. My sister used to think it was funny; she wanted me to know what was on there. And I was like, "For my mental health, you cannot tell me what's on there," because it's very hard to see things about yourself and not want to defend yourself. And people are miser-

> **“At the end of the day, if I had to go back and work at Jersey Mike’s again to support myself, I’ll make your sandwich for you.”**

able. Misery loves company. I would love to get my Reddit taken down though. If you know anybody.

**Well actually WIRED shares a parent company with Reddit.**
Good. Get rid of it.

**What’s the part of all of it that feels the weirdest to you still? Is it weird to have something happen in your life and have to issue a statement about it on Instagram?**
It’s weird that if I say anything, it’s going to get press. And sometimes I don’t think about that. So when I decided to post an Instagram Story two weeks ago and be like, “I have never slept with someone I interviewed,” I did not expect to wake up to an email from my PR team being like, “Here’s all the news, the press you got from this.” Or when I got a divorce, having paparazzi show up at my house, I was like: “A. How did they figure out where I live? B. Why do they need to take photos of me walking without a wedding ring on?”

**It is kind of crazy. Are you in a good place in all of that personal stuff?**
A lot of people still really give me a hard time because I’m no longer with my children’s father. I was 22 when I got married.

**I didn’t know if we were going to talk about this. But I got married when I was 21.**
Did you?

**And I got divorced. I was going to offer to tell you about my divorce if it would help you talk about yours. Because I married an abolitionist vegan in college. Special. And I was also vegan and then was seeing a doctor. I was vegan because I was starving myself.**
Oh my god.

**I went to see a doctor and the doctor was like, “You have to start eating dairy. Kate, you have to start eating some sort of animal product. You have to gain weight.” So I started eating yogurt, and I called my husband, because we were living in different cities at the time, and I said, “There are two things I need to tell you. One is that I started smoking.” And he was like, “That’s hilarious. I never would’ve pictured you as a smoker.” And I said, “And the other thing is that I started eating yogurt.” And he was like, “I’m done.”**
No way. Your husband.

**My husband. And we got divorced because I ate—**
Yogurt.

**A Fage 0 percent plain.**
It’s so easy to look at the future and be like, you get married and you stay married forever. We had kids immediately. I got pregnant 10 months after knowing him, maybe 11 months. And then at a year marker we’re getting married. We got married in the courthouse.

As a kid, I saw my parents being horrible together. Horrible. Truly, truly, truly. The worst possible couple that could be together.

**Are they still married?**
No. And I remember the day that my mom told us they were getting divorced was the best day of my life.

I read online that the best time to get a divorce and for it to have the least impact on your kids is before they turn 3. When my daughter was 3 I remember it was just, if we are going to do this, it needs to be now, because our kids won’t know. It wasn’t like my parents, but we weren’t in love.

**And by then you must’ve had some financial independence.**
The timing lined up perfectly with me getting a lot of money. Once I knew my career was going to take off, I was OK. And we had the conversation and it was a joint conversation of, “this isn’t good anyway.”

**Do you want to get married again?**
I would love to get married and have all of the things that I never got. I want to meet someone, date them for a while, have them surprise me with an engagement ring, and then get married and have a big wedding and lots of family and friends there. I want to be disgustingly in love one day.

**Well, I’m sure all your fans on Reddit will read this interview and take notes.**
Oh, they will.

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**KATIE DRUMMOND** *is the global editorial director of* WIRED.

BY **STEVEN LEVY**

# THE MILITARY






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# INDUSTRIAL COMPLEXES

## TRAE STEPHENS

**The venture capitalist and cofounder of the defense-tech startup Anduril has worked with Donald Trump, Peter Thiel, Palmer Luckey, and Elon Musk.**

**As he sees it, Jesus would approve.**

# TRAE STEPHENS

PARTNER AT FOUNDERS FUND AND COFOUNDER OF ANDURIL INDUSTRIES

# STEVEN LEVY

EDITOR AT LARGE, WIRED

TRAE STEPHENS' ORIGIN STORY BEGINS like the first volume of a spy thriller series. Galvanized by 9/11, he vowed as a high schooler to find a career that would let him defend his country. He applied to colleges with programs that could prep him for that heroic role. None were interested in a kid from a hardscrabble Ohio town, so he traveled uninvited to Washington, DC, barged into the applications office at Georgetown University, and talked his way into the School of Foreign Service, where among other things he learned Arabic. After graduating, he joined a US intelligence agency (he can't say which one), where he used his education as a "computational linguist" to do a kind of desktop counterterrorism. But it wasn't long before he became frustrated by the red tape—and the lousy IT setup.

Here, though, Stephens' story diverged (somewhat) from that of the storybook secret agent with all the guns and martial arts tricks. During his time at ... wherever he was ... he met people at a Silicon Valley startup called Palantir, which set out to use deep data mining to win government contracts. Stephens signed on. After a few years, the venture capital firm backing Palantir, Founders Fund, offered him a job on the investment team. He found himself in the midst of Silicon Valley's attempt to create companies that sell military and data-science tech to the government. He reports to Peter Thiel, the Valley's most notorious conservative.

In 2016, of course, Donald Trump won the White House. Thiel was a supporter and had the new president's ear. Stephens wound up running the Trump transition team for the Department of Defense. That experience set him up to cofound what is essentially a sister company to Palantir: Anduril, a military contractor that infuses AI and mixed reality into defense tech. His key cofounder was VR wizard Palmer Luckey. Anduril started by building "smart battlefields" and later ordnance, including autonomous fighter jets and arms-ready submarine drones. More recently, Stephens launched a less deadly enterprise: a hardware startup called Sol that makes a $350 wearable e-reader.

If Trump retakes the White House, Stephens may end up back in DC. But no matter who wins the election, Stephens has forged a unique role for himself: a tech VC and founder with spycraft cred, and a fervent Christian and conservative who voices his values without judgment. Our conversation covers Silicon Valley's suddenly cozy relationship with the military, the proper role of AI in weapons, and Stephens' eerie parallels to Trump's VP nominee, JD Vance. He also explains why he built himself a bunker.

**Steven Levy: Barely seven years old, Anduril has 3,000 employees, is valued at $14 billion, and has won billion-dollar defense contracts. That's unusual. Did you expect to grow at that rate?**

**Trae Stephens:** Things are moving way faster than we expected. At Founders Fund, we had become accustomed to SpaceX and Palantir, where it was a long run to early wins. That's the nature of working with the government. But at Anduril we accelerated into a congressionally budgeted program within three years, which is the fastest that's happened since the Korean War. We're moving way ahead of plan.

**Why?**

We didn't have to learn the lessons for the first time. When I was working sales at Palantir, we made a lot of mistakes.

**What's an example?**

So many. There's this idea to focus entirely on your product—and like the Field of Dreams, you build it and they will come. So you pitch directly to the end user, the person in the field, and don't worry too much about the authorizers and appropriators in Congress, agency leadership, or mid-level bureaucracy. At Palantir, we figured out that you had to work every single one of those audiences. It took us way longer than it should have to hire lobbyists. At Anduril, we did that in the first week.

There's also this hilarious misconception that you should subcontract with the primes—Booz Allen Hamilton and Deloitte and all of those guys—because somehow they're going to bring you in on their contracts. That doesn't work. And there's the idea that you should set up an advisory board where a group of retired generals and retired government officials shepherd you through this process. The reality is, they haven't gone through it either.

**When Anduril started, defense tech was a turnoff for many engineers. Is the stigma still there?**

The easy-money startup days are over, and the geopolitical realities have set in. People are looking at what's happening in Ukraine or Israel, or the

potential threat to Taiwan, and they're saying, "Man, I would love to spend time working on things that are going to move the needle for humanity." That doesn't always look like defense, but it does involve harder tech problems. And you're starting to see investors get more comfortable taking risks that might have been beyond the pale back in 2017.

**You still get pushback from the left.**
It's not the left—it's a very small minority of people at the fringe. It's much harder in 2024 to have a reasoned, thoughtful opposition to defense tech than it was in 2017, and that has made it easier for us to communicate our mission and to recruit and retain engineers.

**Anduril just raised $1.5 billion to help build what it calls a 5-million-square-foot "hyperscale" factory to make thousands of relatively low-cost autonomous weapons. Is that necessary?**
During the later stages of the Cold War and after, the US pivoted into a force posture with very high-cost, exquisite systems in low quantities. Things like fifth-generation fighter planes, aircraft carriers, and missiles that cost millions of dollars every time they're fired. This worked when we had a dominant lead and were deterring large-scale conflict. That's not the geopolitical landscape anymore. In Ukraine, we're depleting entire inventories of weapons systems much faster than we can resupply. We need a supply chain that allows us to ramp up manufacturing of core, low-cost systems, so that if we ever find ourselves in a large-scale conflict, we could push weapons out to the front line quickly and not deplete our inventories.

**If we churn out many thousands of your fighter planes, wouldn't that be a disincentive to diplomacy? Maybe we'd use them more and wind up in more conflicts.**
That goes against a lot of the core concepts of just-war theory [which posits circumstances under which war can be considered moral]. We need to maintain enough of an advantage so we don't find ourselves in a situation where people are tempted to use force. I think it leads to people thinking differently about whether they want to get into conflict in the first place.

**When I wrote about Anduril in 2018, the company explicitly said it wouldn't build lethal weapons. Now you are building fighter planes, underwater drones, and other deadly weapons of war. Why did you make that pivot?**
We responded to what we saw, not only inside our military but also across the world. We want to be aligned with delivering the best capabilities in the most ethical way possible. The alternative is that someone's going to do that anyway, and we believe that we can do that best.

**Were there soul-searching discussions before you crossed that line?**
There's constant internal discussion about what to build and whether there's ethical alignment with our mission. I don't think that there's a whole lot of utility in trying to set our own line when the government is actually setting that line. They've given clear guidance on what the military is going to do. We're following the lead of our democratically elected government to tell us their issues and how we can be helpful.

**What's the proper role for autonomous AI in warfare?**
Luckily, the US Department of Defense has done more work on this than maybe any other organization in the world, except the big generative-AI foundational model companies. There are clear rules of engagement that keep humans in the loop. You want to take the humans out of the dull, dirty, and dangerous jobs and make decisionmaking more efficient while always keeping the person accountable at the end of the day. That's the goal of all of the policy that's been put in place, regardless of the developments in autonomy in the next five or 10 years.

**There might be temptation in a conflict not to wait for humans to weigh in, when targets present themselves in an instant, especially with weapons like your autonomous fighter planes.**
The autonomous program we're working on for the Fury aircraft [a fighter used by the US Navy and Marine Corps] is called CCA, Collaborative Combat Aircraft. There is a man in a plane controlling and commanding robot fighter planes and deciding what they do.

**What about the drones you're building that hang around in the air until they see a target and then pounce?**
There's a classification of drones called loiter munitions, which are aircraft that search for targets and then have the ability to go kinetic on those targets, kind of as a kamikaze. Again, you have a human in the loop who's accountable.

**War is messy. Isn't there a genuine concern that those principles would be set aside once hostilities begin?**
Humans fight wars, and humans are flawed. We make mistakes. Even back when we were standing in lines and shooting each other with muskets, there was a process to adjudicate violations of the law of engagement. I think that will persist. Do I think there will never be a case where some autonomous system is asked to do something that feels like a gross violation of ethical principles? Of course not, because it's still humans in charge. Do I believe that it is more ethical to prosecute a dangerous, messy conflict with robots that are more precise, more discriminating, and less likely to lead to escalation? Yes. Deciding *not* to do this is to continue to put people in harm's way.

**I'm sure you're familiar with Eisenhower's final message about the dangers of a military-industrial complex that serves its own needs. Does that warning affect how you operate?**
That's one of the all-time great speeches—I read it at least once a year. Eisenhower was articulating a military-industrial complex where the government is not that different from the contractors like Lockheed Martin, Boeing, Northrop Grumman, General

Dynamics. There's a revolving door in the senior levels of these companies, and they become power centers because of that interconnectedness. Anduril has been pushing a more commercial approach that doesn't rely on that closely tied incentive structure. We say, "Let's build things at the lowest cost, utilizing off-the-shelf technologies, and do it in a way where we are taking on a lot of the risk." That avoids some of this potential tension that Eisenhower identified.

**You led the Trump Defense Department transition team, and the Founders Fund seemed allied with the former president. Are you currently supporting Trump?**

I think Trump, like any candidate, is flawed, and I've never been particularly excited by his candidacy. The question for me comes down to a matrix. Picture a chart with four quadrants: feels-good-is-good, feels-bad-is-bad, feels-bad-is-good, feels-good-is-bad. We can all agree that we like feels-good-is-good and don't like feels-bad-is-bad. The other two quadrants are messy. The feels-good-is-bad quadrant is kind of like hedonism—

**Are you putting Kamala Harris in the feels-good-is-bad quadrant?**

You'll see where I'm going with this. On the other side, you have the feels-bad-is-good quadrant. Law enforcement and defense fit into it. Historically, the flaw with Republicans is that they're unnecessarily cruel in the way that they talk about these things. But with Republicans we're more likely to get a thoughtful government that does the right thing, even when it doesn't feel good. That's the core reason I consider myself to be right of center—on the left, there's too much emotion-driven decisionmaking.

**So I take that as a yes—you're going to vote Republican and press the lever for Trump.**

I tend to be right of center, and I don't see any reason to be anything other than that at this point.

**Would you serve in a second Trump administration?**

The timing on this is bad—I'm incredibly committed to the mission of Anduril. That said, I do believe it's important that people come out of private industry to work on civil service projects, and I hope at some point I'll have the opportunity to go back in and serve the government and American people.

**Another yes. You were in the same VC circles as JD Vance. What's your relationship with him?**

JD is an incredibly thoughtful person. We have very similar biographies—the towns we grew up in were right next to each other in Ohio's Warren County. We share a similar tale of our families emigrating from Appalachia into a steel-producing region, and then the steel plants left. I don't think it's possible to find a political candidate that you agree with 100 percent of the time, but broadly speaking, it's important that incredibly smart people from the private sector are open to serving the country in public office, and I'm glad to see JD doing that.

**Not everyone is glad about it—he's getting whacked for his views and his flip-flopping.**

The state of discourse in American politics is pathetic. All of the things that JD is being raked over the coals for are memes, made-up stories. People are throwing around comments about him being weird. This is terrible for America. I want a real dialog about policy, and I don't think we have the ability to do that anymore. I'm incredibly concerned for democracy.

**It seems to me that a lot more name-calling comes from the right.**
It goes on on both sides. There is no political discourse. It's just emotional rabble-rousing.

**OK, let's talk about Founders Fund. As one of the top partners, are you involved in portfolio companies like Palantir?**
Yes, day to day, I spend time across the board in our companies. One thing that I love is that they are debate-driven organizations where we are encouraged to disagree, and we believe that disagreement and dialog lead to better decisions.

**You also cofounded a consumer tech company called Sol, which makes a reading device that you wear like glasses. How did that happen?**
I was talking to Palmer about the future of AR and VR, and he said we've reached a limit from a physics perspective, and right now things like really high brightness, resolution, and long battery life are literally not possible. I told him I just want to lie on the beach or in bed and put on sunglasses where I can read and not have to hold a book or a Kindle. He laughed at me and said, "Oh, you can do that!" So I worked with a good friend of mine to build a wearable e-reader. It's still very early, and we're still doing marketing tests, but it's now possible to go on our website and buy one.

**How many books have you read using this thing?**
Maybe 20, 25.

**Founders Fund is closely tied to Elon Musk, with big shares in his companies: SpaceX, Neuralink, even the Boring Company. Has anything shaken your confidence in him?**
No. The one ironclad rule in venture is never bet against Elon Musk. He is entitled to his personal beliefs. And SpaceX, Neuralink, and the Boring Company seem to be doing quite well.

**To many people, your boss at Founders Fund, Peter Thiel, is Silicon Valley's Bond villain. What do people get wrong about him?**
There's this weird idea that he's like this conservative godfather-type guy, and I have not seen that to be true at all. He doesn't surround himself with sycophants, but with people who push him intellectually and drive him to better decisions.

**You are very open about your faith. Do you feel that Silicon Valley is intolerant of evangelical Christianity?**
Generally speaking, people in tech are very smart and intellectually curious. When they find out that someone who they respect intellectually is a Christian, they want to understand more. When I gave a talk about tech and Christianity a few weeks ago in downtown San Francisco, it ended up being a packed house.

**Would Jesus have liked venture capitalists?**
I think Jesus doesn't care about classes of people. He cares about people.

**I'm talking about what they do.**
My favorite story in the Gospel is about the rich young ruler who came to Jesus and said, "What do I have to do to receive eternal life, to receive salvation?" Jesus said, "Take all of your money and give it away and come and follow me." He was saying that this man was a good person but he worshiped money, and he needed to turn away from that idol to receive the wisdom and blessing from God. There's a lot that venture capitalists do that is directly aligned with abundance—caring about improving humanity. There's also a lot of ego and greed. If people want to live a joy-filled and abundant life, they're going to need to turn from those things and see that there's a better plan that they can step into.

**That happens at Founders Fund?**
We care deeply about getting the team right. Peter is committed to having different ideas about creating abundance. That's where you get, like, the manifesto for Founders Fund—you know, we wanted flying cars; instead, we got 140 characters. Peter gives a ton of money to funding bioresearch projects, the longevity movement, things like that. We believe that people move the needle. Actual people, not companies, not systems, not organizations. Which is why we're called the Founders Fund. It all starts at the heart of man. The best things in history have come from the heart of man, and so have the worst. We need to find and invest in the people who we feel are on the right side of history.

**I thought the essence of venture capital is multiplying your money.**
No, the essence of venture capital is creating wealth. It's not extractive. It's not zero-sum. It's the idea that you can make something from nothing, and that is, foundationally, a theological idea. It's far less extractive than many other parts of the financial community.

**So Jesus would have loved venture capitalists?**
He cares about the heart of the individual, and some people's hearts are more aligned. The call that I have been trying to make to the tech community is that we have a moral obligation to do things to benefit humanity, to draw us closer to God's plan for his people.

**Between your belief in End Times and your role in defense, I find it unnerving that you reportedly have a bunker in one of your homes. Is that true?**
I have a ranch in New Mexico, yes, and a part of the house is more survival-oriented than others. It's off the grid. It gives us the ability to get out of the city and be at total peace with nature.

**If something horrible happened, how long could you be in your bunker?**
It has a lot to do with the quantity of nonperishable foods. I haven't solved that problem yet. It's on the list. So the answer is, it could be a really long time if I had adequate food. But if I was actually concerned about these things, my ranch would have been a bad place for a bunker. It's between Sandia and Los Alamos. Putting your house there is not a true survivalist mentality.

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**STEVEN LEVY** *is editor at large at* WIRED. *He interviewed President Biden's science adviser, Arati Prabakhar, in issue 32.07/08.*

BY **SAMANTH SUBRAMANIAN**

PHOTOGRAPHS BY **TOM COCKRAM**

# THE TELEVISUAL HIJACKING OF ALFONSO CUARÓN

***Gravity*, *Children of Men*, the best Harry Potter film—and now a seven-part miniseries?**

**With *Disclaimer*, the director wants to conquer TV in the name of cinema.**

# ALFONSO CUARÓN

FILM DIRECTOR

# SAMANTH SUBRAMANIAN

CONTRIBUTOR, WIRED

**WITH ALFONSO CUARÓN, YOU NEVER** know what's next—and sometimes neither does he. The director leaps from genre to genre: from a Dickens adaptation, to a sensual road movie about two teenage boys, to a blockbuster Harry Potter sequel, to a dystopia about infertility, to a thriller set in low Earth orbit, to a meditative drama about the housekeeper in a wealthy Mexican household, filmed in black and white. What unites these stories is Cuarón's particular sensibility, or what he calls his "cinematic language." His camera rarely stops moving. His films regularly deliver tiny, unexpected moments—a woman shyly revealing herself to be pregnant in *Children of Men*; a stranded astronaut making radio contact with an Inuit man and his dogs down on Earth in *Gravity*—that feel intimate and grand at the same time.

For each of his past two films, Cuarón won the Best Director Oscar. His first big project since 2018's *Roma* is not a movie but a television show: *Disclaimer*, which stars Cate Blanchett and Kevin Kline and streams on Apple TV+. Its seven episodes are marvels of engineered tension: Mysteries turn inside out, narrators grow unreliable, facts evaporate, and the sand never stops shifting. This summer, in London, I spoke with Cuarón about what it takes to make TV feel like cinema. We also talked about science fiction. Two of Cuarón's films, *Children of Men* and *Gravity*, routinely make lists of the best movies ever made in the genre, but he doesn't really see them that way. His films about "the future" are, he says, studies of what life is already like for some people—and the precarious realities we don't like to confront—here in the present day.

This interview has been edited for length and clarity, combining on-camera and off-camera portions. A version of it can be found on WIRED's YouTube channel.

**Samanth Subramanian: This must be your first time out talking about a big project since *Roma* in 2018, back before the pandemic. I thought about your movies a lot during the lockdown, for a particular reason. Every time I've seen a film of yours, I've associated it with this feeling of claustrophobia—whether it's a physical claustrophobia, like when you're moving the camera into Sandra Bullock's helmet in *Gravity*, or an emotional claustrophobia, like the world closing in around you.**

**Alfonso Cuarón:** First of all, I apologize for making you feel like that! [*Laughs.*]

**It's very effective!**

I'm glad—I guess. But this is the first time I've been confronted with this. It was not a conscious decision. But most stuff is like that when you make a film: It's up to the audience to make meaning.

**In any case, it got me wondering, what was your pandemic like?**

Well, I guess similar to everybody's—just locked into the house. At first, I was trying to figure out if there was something I could do, and I sorted out many, many thousands of masks to be sent to Mexico for the nurses in the hospitals. Then I started working on *Disclaimer*.

**How did that project come to your attention?**

Renée Knight [the author of the 2015 novel that inspired the show] and I have acquaintances in common. She sent me the manuscript, and I really liked it. I just didn't know how to make it happen as a conventional film. And so time passed, I went to do *Roma*, and toward the end of that Knight got in touch, saying, Hey, in case you're interested, the rights are available. And that was a moment when I was very intrigued about exploring episodic TV.

I enjoy many series, and they have amazing writing and amazing acting. But only very few have a cinematic approach. So I was intrigued. How can you hijack the conventional, writer-oriented show into something that is closer to cinema?

**What do you mean here by "cinematic approach"?**
In film, you take images and put them in relationship with other images to convey a meaning. There's a visual layer, a visual way in which stories are told. In order to do that, you have to surrender to it.

Many series cannot be concerned about that. They need to keep moving the narrative forward constantly. The narrative is leading the show—that's their amazing strength. Narratively they've started doing way more interesting things than most mainstream American films. But in the worst cases, you can watch many series with your eyes closed.

By the way, you can still have a great time. You can actually be doing things while you're watching your show.

**My wife does embroidery while she's watching some of these shows.**
Yeah, and you're talking once in a while. That's their value.

Another thing is: I'd never done anything overtly narrative, and I was very intrigued by the challenge. I'd always favored a more cinematic language to convey ideas, rather than just strong narrative impulse.

**Can you say a little more about what you mean by "overtly narrative"?**
When you have a narrative, you can go: A, then B, then C, then D, then E, then F, and so on. In films, you have to somehow convey everything you need—and this is what I mean about cinematic language—to go from A to D.

But there are two principles that are contradictory, and I learned these by working on this show. The principle of film is time—it's how those images flow in time, and all the emotions that they convey in time. Television, on the other hand, is about killing time. It's killing time to keep the narrative flowing.

Doing *Disclaimer*, there were cinematic moments that I loved. But I also knew that if I hold the shot here, people watching are going to check their messages.

**You mentioned holding a shot. There's that moment in *Y Tu Mamá También* when the camera inside the car turns around, looks out of the back window, and focuses on cops stopping some men on the road, then it turns back to the front seat, where the stars are talking about foreplay. Is that the kind of moment that wouldn't fit in a series? Because, in a series, it's just the lead characters and their actions, one after another, killing time?**
I don't mean that in a derogatory way, by the way!

**Of course. Maybe "occupying time"?**
Yes, maybe that's a less radical expression of it. The important thing in most of the films I do is to show the relationship between the character and the environment. It's always the clash between the two. And in *Y Tu Mamá*, it was like: These guys are in their little, stupid drama, cruising through a greater reality that they are oblivious to.

And don't get me wrong, so many shows have amazing cinematic moments. *Chernobyl* is a great example. *The Bear* as well. But they are not consistent throughout the whole show.

Part of the nature of most shows is that you have several directors going through each series. Different directors doing different episodes. So it's hard to have a strong directorial point of view from A to Z—a certain attention to detail that has a causal effect in the whole show. The great ones establish a style and then different filmmakers come to honor that style through the whole series.

In the irresponsible decision I made to direct all seven episodes of *Disclaimer*, it's like I'm doing a film but it's very long.

**I guess it's your own cinematic language, as you call it, that unites all these movies you've made. Which, on the surface, otherwise seem very different.**
More than anything, that's a limitation, I guess.

**Why would you say that?**
A problem I have is that I have a very eclectic taste in cinema. I grew up loving *The Poseidon Adventure*, or *Planet of the Apes*, or *Soylent Green*.

**All great movies.**
I know—they're great! But at the same time, I love Bergman, and I love Tarkovsky, and I love Sokurov—I admired them the most. But what they have in common is that there's one idea they keep on developing, film after film. You can see everything that unifies Bergman or Fellini or even Kurosawa. I haven't been able to do that. Once I finish a film, I just want to explore different realms.

**Have you tried?**
No, no, I haven't even tried. [*Laughs.*] Some films you do because you make conscious choices. Some films you do to survive. Others come out and save your life. You cannot force these things. I have to wait for films to come to me. They have to manifest in my head somehow. Anytime I've tried to seriously plan to do a specific film, I end up not doing that film and end up doing something else.

**You mentioned *Soylent Green* and *Planet of the Apes*, and another idea that has struck me about your work is, you apply this higher cinematic aesthetic to adaptations of pretty mass-market material. *Disclaimer* is a great case. The book is really like a summer beach read—a thriller. *Children of Men* and *Harry Potter* are genre fiction as well, by best-selling authors rather than literary writers. What is it about this material that draws you in?**
It's just how films come into your life. With all these adaptations, there's a moment in which you see the film in your head—while you're reading the book. In the case of *Children of Men*, I saw the film pretty much as soon as I read a one-page outline of what the book was about. So in that case, I made the conscious decision not to read the book; I didn't want it to sidetrack me from what I was thinking. People tell me it's great. But I guess my *Children of Men* times have gone.

**Although given the anti-immigrant riots that happened in England recently,**

**everything in *Children of Men* seems suddenly timely again.**

Well, but those things were happening then. The thing is that we were living in this kind of bubble before. When I did *Children of Men*, it was just after the turn of the century, and I wanted to understand the things that were going to shape the 21st century. And I was reading a lot of experts—sociologists and philosophers and so on. And they were already talking about this. It's nothing new. The difference now is that it's coming closer to our backyard, you know? Maybe not in London, or maybe not in the London that a privileged class gravitates around—but all around the world, this has been happening.

**Tell me a little bit about your parents? I gather they were in the sciences, in some way or another?**

My father was a physician, and he had a specialty called nuclear medicine. In the later part of his life, he was working with the UN, with an atomic agency—but more like an inspector. And my mom was a biochemist. But when I was growing up, she went to work as a teacher. Later on, she switched to philosophy—she did a master's, and her professional career was working in the Institute of Philosophical Investigations in a university as an editor.

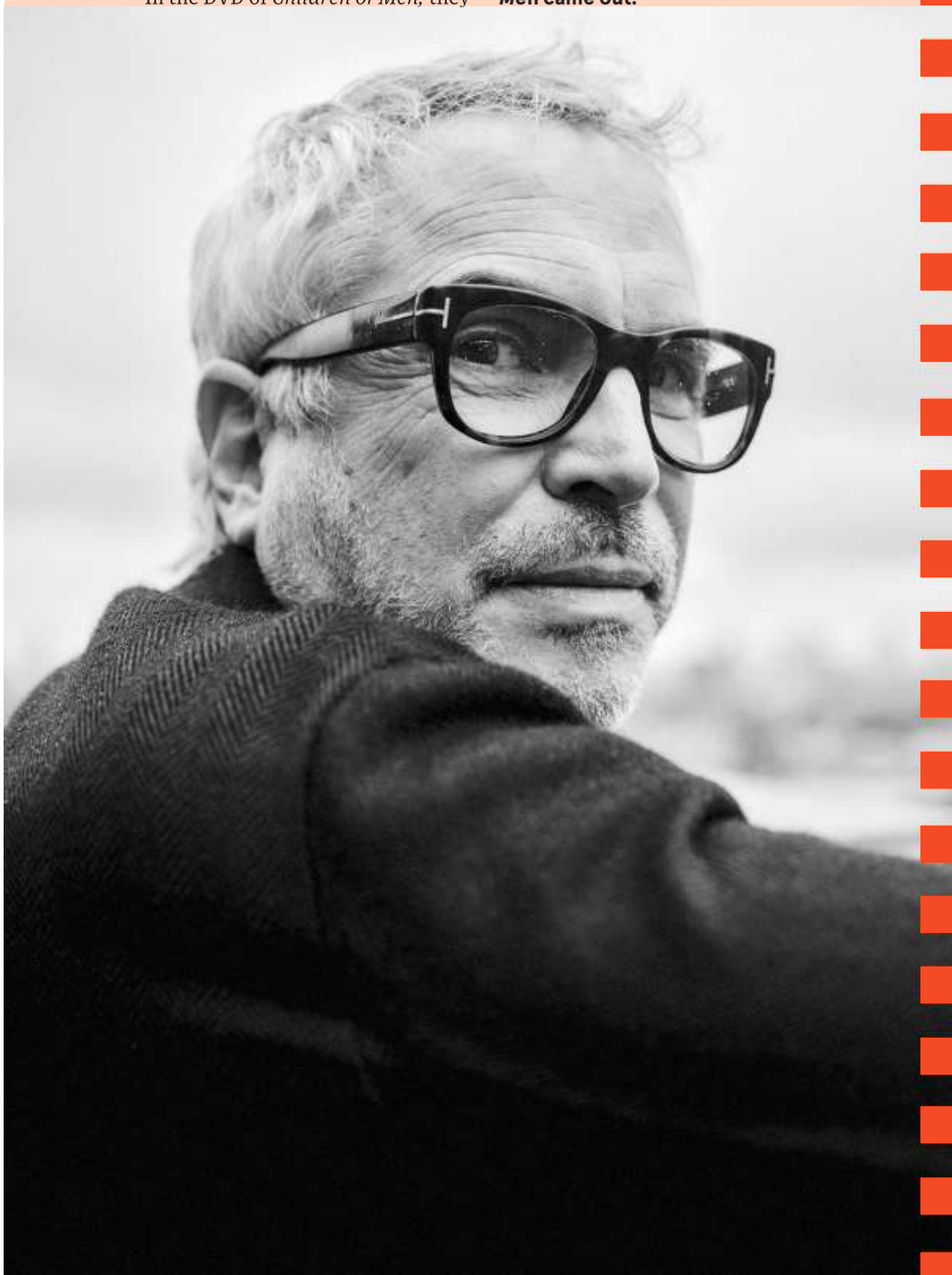
**I ask because I was thinking of *Children of Men* and *Gravity*, and they're very precise in how they're informed by science and research. In a way it's tempting to call them "science fiction," but are they, really?**

*Gravity* actually doesn't take place in the future, exactly. It's a plausible present, in the sense that the Kessler effect is a danger. More and more, we should be terrified. The worst-case scenario is that it affects telecommunication and transportation, because we depend so much on those satellites. Forget about your TikTok!

And with *Children of Men* too, I wasn't intending to do science fiction. Whatever you see in *Children of Men*—except for the contrivance that children haven't been born in years—all the images you see are from the present. All the stuff in the background—we were very careful to refer to actual events that were going on around the world. The war in the Balkans, images of the north of Sri Lanka. Humans are amazing at creating atrocities. And it was clear that the sociopolitical tendency was toward a kind of populism and paranoia about immigration. That was happening already—not necessarily in our green zones in the West. Now people are saying, "Oh my God, it's coming true." But no. It's always been true, it's just that reality is closer to your backyard.

In the DVD of *Children of Men,* they asked me to do a "Making of," and I was a little bored of "Making ofs," so I did a little documentary with interviews of some of the people I was reading. There were people talking about these things in the movie happening in Mexico and many other places. We tend to forget that because we live such a sheltered existence.

**But 2024 feels dystopic even by the standards of 2006, when *Children of Men* came out.**



Even then, we were hearing about this immigration paranoia. Humans have migrated ever since we were humans. That's the reason we're humans—we migrated and populated everywhere. They call it a problem. No! It's a phenomenon, and it keeps on going and will always exist. But it's easy to blame the one who is different.

**I want to go back to something you said earlier, about when you read *Disclaimer* and saw it as a long-format project ...**
I saw the possibility, but I didn't know how to do it.

**Is that why you take projects on? You find one challenge, and you think: OK, I should try to see if I can do this?**
I think what motivates me is to do something I don't know how to do. For example, *Harry Potter* was one of the best experiences I've had in my working life. I learned so much. I didn't know a thing about visual effects, and this movie was my university for that. So much so that, toward the end of the movie, it became second nature for me to work with visual effects. I was very generously invited to stay and direct the next one. I passed because I didn't want it to become like I was doing things by numbers.

**Since *Roma* in 2018, filmmaking has changed so much. The kinds of movies that make it into the theaters, the kinds of audiences that receive them. What are the most interesting shifts?**
Audiences are getting so comfortable with the streaming shows. Think about this: It's still quite new, right? Earlier, there were the miniseries and the telenovelas that would run forever. But the format of the streaming series, as something that is way more structured, is kind of novel.

It's interesting to conquer that in the name of cinema. We're so used to saying that films are around two hours long. But cinema started with films that were one minute long, you know? And then those films grew longer, in part because people were used to the commercial paradigm of the stage. In many ways, cinema inherited this alien paradigm that was the theater. And we've stayed with that convention. I don't think time should be a constraint for films.

**What about the industry itself? Do you agree with people like Alejandro Iñárritu or Martin Scorsese—these guys who look upon movies like the Marvel franchise as just ... I think Alejandro called it "cultural genocide."**
He stole that phrase from me! I used it in another context. He used it for the superheroes, I said it about something on Mexican TV.

The thing is the lack of diversity—when these films go and hijack all the theaters. There was a photo of a multiplex in Mexico, in which all of the theaters were showing the same film. I don't remember which of these movies it was—I'm not very into superheroes—but it was one of those films. All except one—because they have a legal obligation to show Mexican films in a certain ratio, so they scheduled an 11:30 slot in the morning for this Mexican film. It was ridiculous.

There should be diversity. Theaters are concerned about filling seats and selling popcorn, and you can't ignore that audiences like these movies. Except that if you keep giving audiences what they know they like, eventually you'll dry the well.

Even on streaming, what you see is controlled by an algorithm that is completely fictitious. The algorithm prevents you from discovering stuff that is different from what you think you like. Which is why I am so grateful to companies like Criterion and Mubi, which curate and archive. So look, I'm not pessimistic about the future of cinema, because it will keep on existing one way or another. And the new generations will also show us new ways of making movies that are completely unthinkable for us right now. But the business is a different thing.

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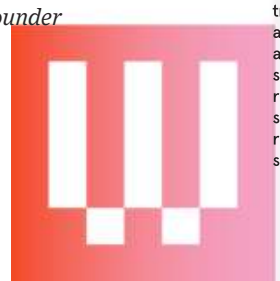
**SAMANTH SUBRAMANIAN** *is a contributing writer at* WIRED. *He interviewed Bellingcat founder Eliot Higgins in June.*



# COLOPHON

## Detours That Helped Get This Issue Out:

Amtrak's Coast Starlight; the Asian American Journalists Association's annual convention; trying a new ice cream shop on the way home (gotta keep the baby's car nap going!); collecting stamps at shops along the Loneliest Road in America to win free swag; the MAD magazine exhibit at the Norman Rockwell Museum; NPR's Tiny Desk concerts by the Lox and Chappell Roan; Siaira Shawn's "Weekend" on repeat; Discogs rabbit holes; getting gelato instead of going to the grocery store; season 2 of *Interview With the Vampire*; being too late for yoga class and consoling myself by going to my favorite bakery; canceling a ton of subscription services; stopping a book halfway through; two recipes combined into one; THC seltzers; wearing a different pair of shoes than planned but still being able to dance all night; taking New Yorkers to Roscoe's House of Chicken 'N Waffles; the more difficult trail to Cataract Falls and Alpine Lake; Poot's Cactus Nursery; the slow route back from LA; a workday trip to the emergency room during the last stages of magazine production; jury duty summons; that last deviled egg; enjoying a city depopulated by the annual exodus to Burning Man.

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THE ASSIGNMENT: IN SIX WORDS, WRITE A STORY ABOUT A COLONY OF BIO-AUGMENTED HUMANS.

# DO YOU REMEMBER YOUR FIRST BODY?

—@contemporaryreuben, via Instagram

## Honorable Mentions

**Home. Finally. Our feet become roots.**
—Lars Schwed Nygård, via Facebook

**Jellyfish-human hybrids: mindless floating immortals.**
—Travis Carraro, via Facebook

**Augmented skin is the new clothing.**
—Diana Yeong, via Facebook

**Last century mech-organs garage sale.**
—David Marques, via Facebook

**Human Pangea engulfs every living person.**
—Walter Ariel Risi, via Facebook

**Awaken, and never fall back asleep.**
—@zachkrawulski, via Instagram

**Frank got a new marsupial pouch.**
—@whoaissteve, via Instagram

**His chlorophyll skin matched her jumpsuit.**
—@lynnreneemaxcy, via Instagram

Want to submit a six-word story for us to consider? Look for the latest story prompt on Facebook, X, Instagram, and WIRED.com/six-word, where you can also see how we have illustrated past favorites.

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