Twitter Thread by Steph Smith

Steph Smith
@stephsmithio

In 1994, Jeff Bezos famously spotted a stat that made him leave his high-paying PE job to start Amazon:

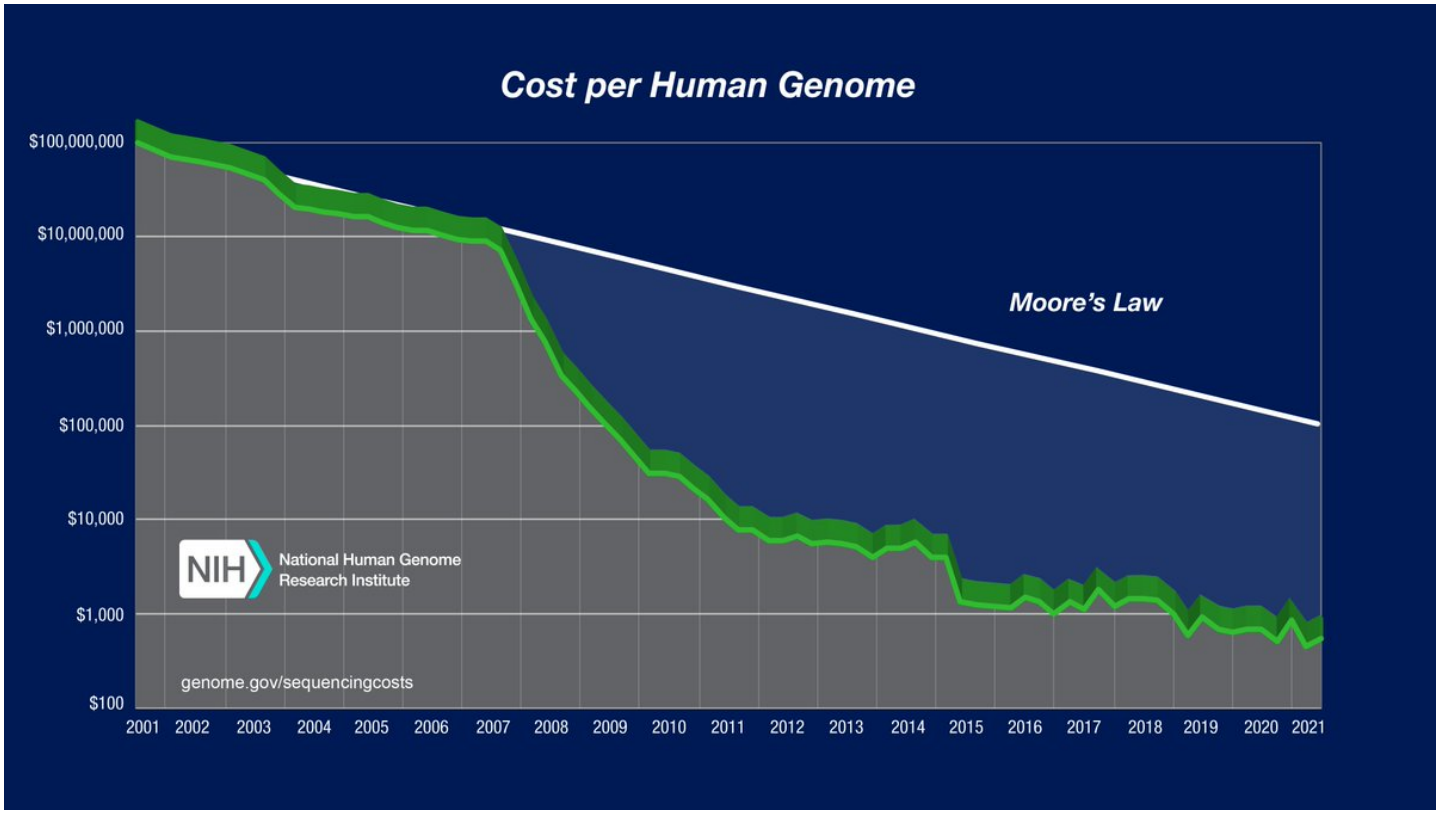
■ The Internet was growing 2300% per year.

What are the generation-defining stats of today?

I'll post a few to kick things off...

■ The cost of mapping a genome has fallen ~100,000% over the last 15 years.

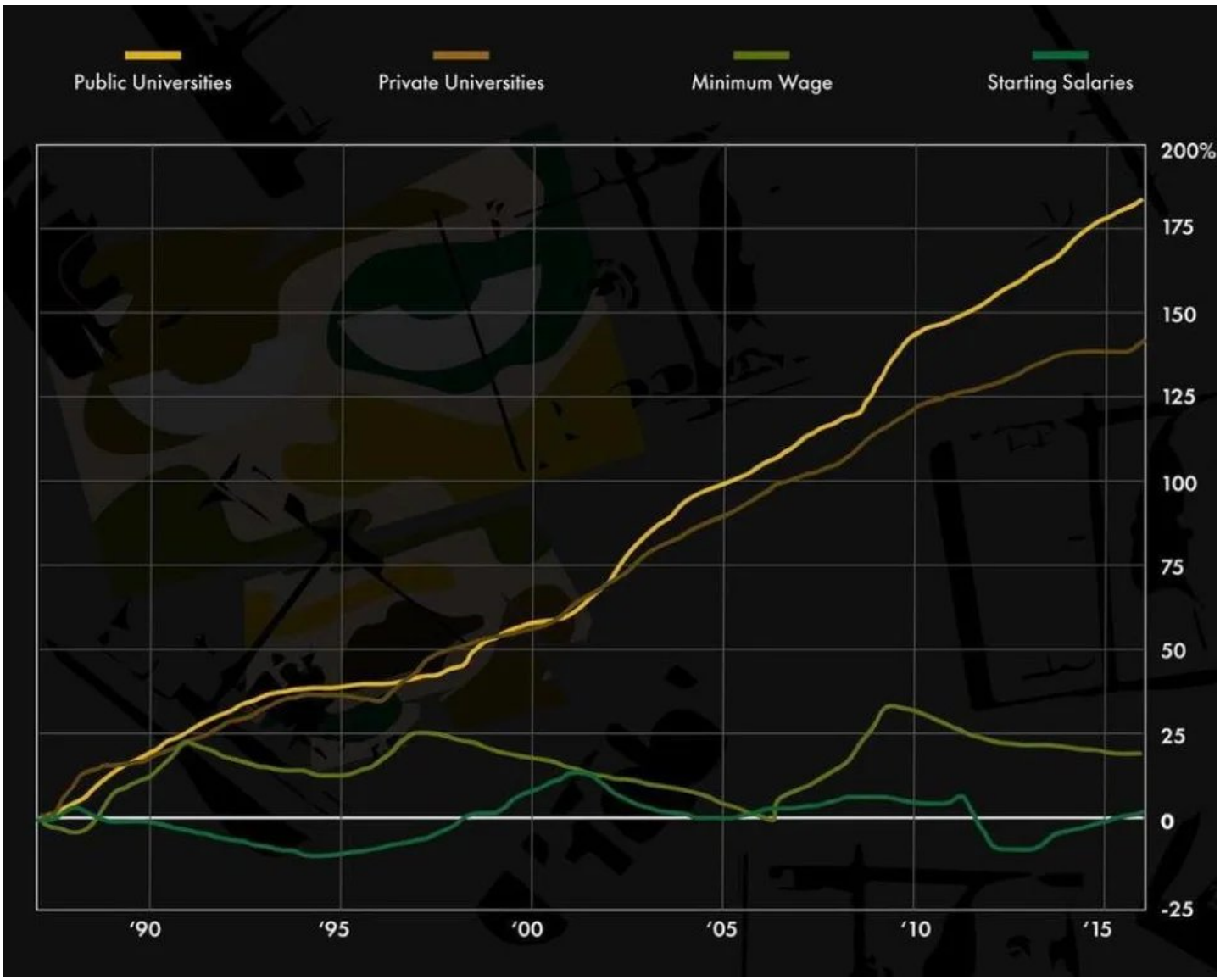
If that doesn't speak to you, we're talking about $100m down to <$1k – faster than Moore's law.



■ College tuition has outpaced how much people earn by almost 10x.

I'll just let this one speak for itself.

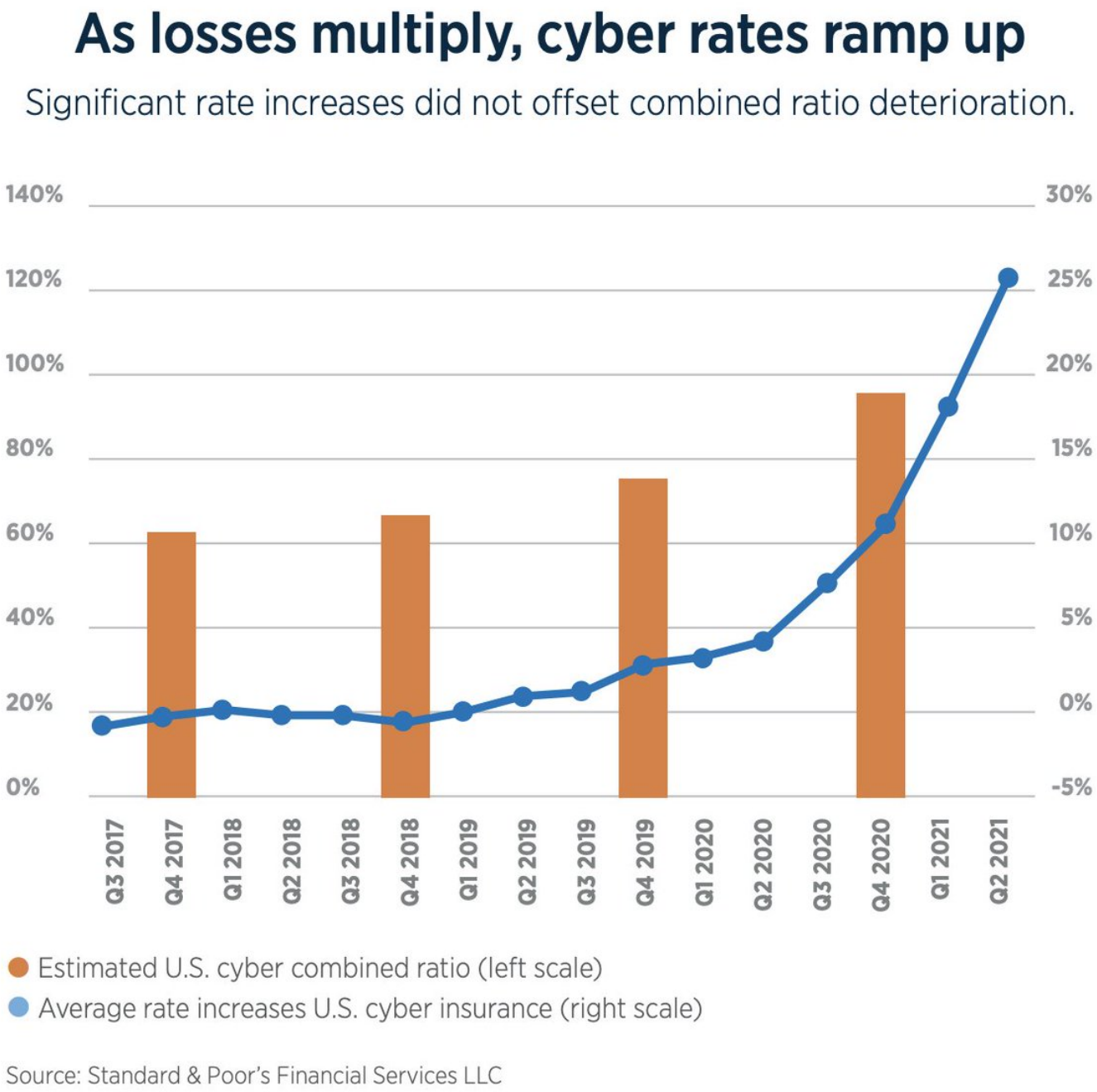
h/t https://t.co/IUn2i52tYQ



■ Cyber insurance loss ratios have increased for years, despite exponentially growing rates.

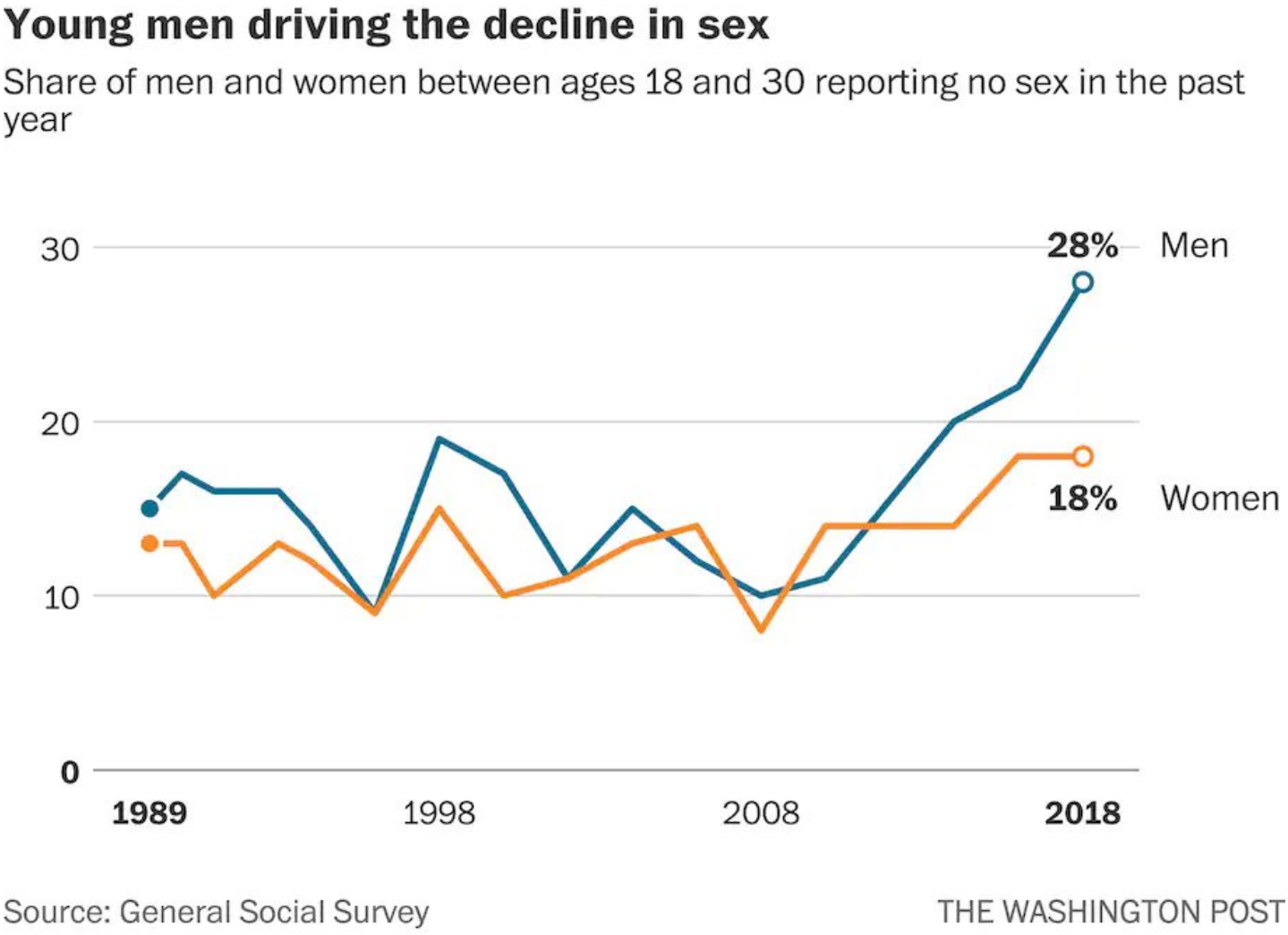
Loss ratio = (costs + claim payments)/premiums

In other words, cyber security is becoming an exponential issue.



■ The percentage of men under 30 not having sex has tripled in the last ~decade.

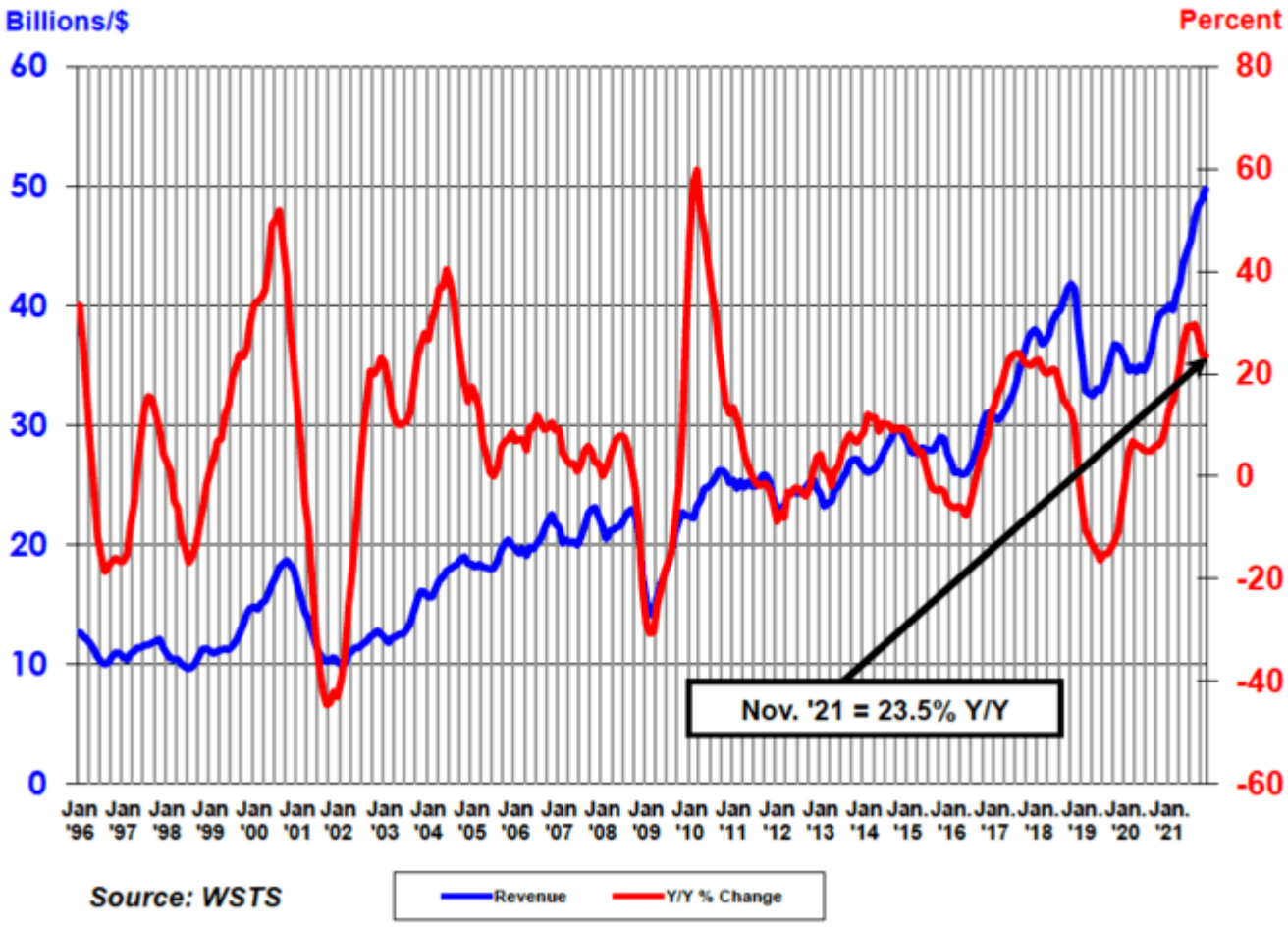
I'm not sure what percentage of those men are now having sex in the "metaverse".



■ The @nytimes estimates that there will be a shortage of 300k semiconductor workers by 2025.

Most emerging tech depends on semiconductors, whether we're talking EVs, AI, gaming...

And making chips is highly complex – taking up to 1500 individual steps and up to 6 mos.

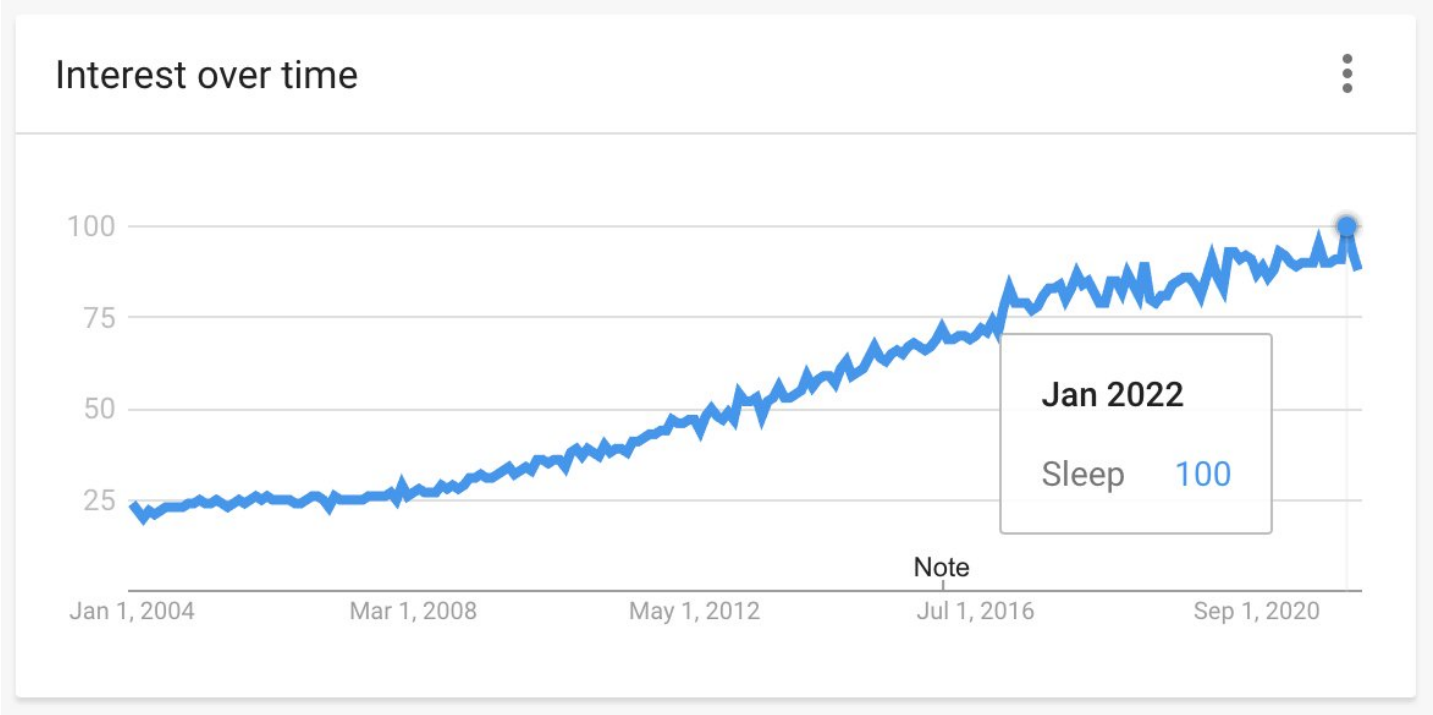


■ In 1942, 8 hours of sleep was the norm. Today, people get an average of 6.8.

New research and the $411B toll this costs the US each year has people finally "waking up" to its importance.

Think the meditation industry is big?

Try a TAM of literally every person on earth.



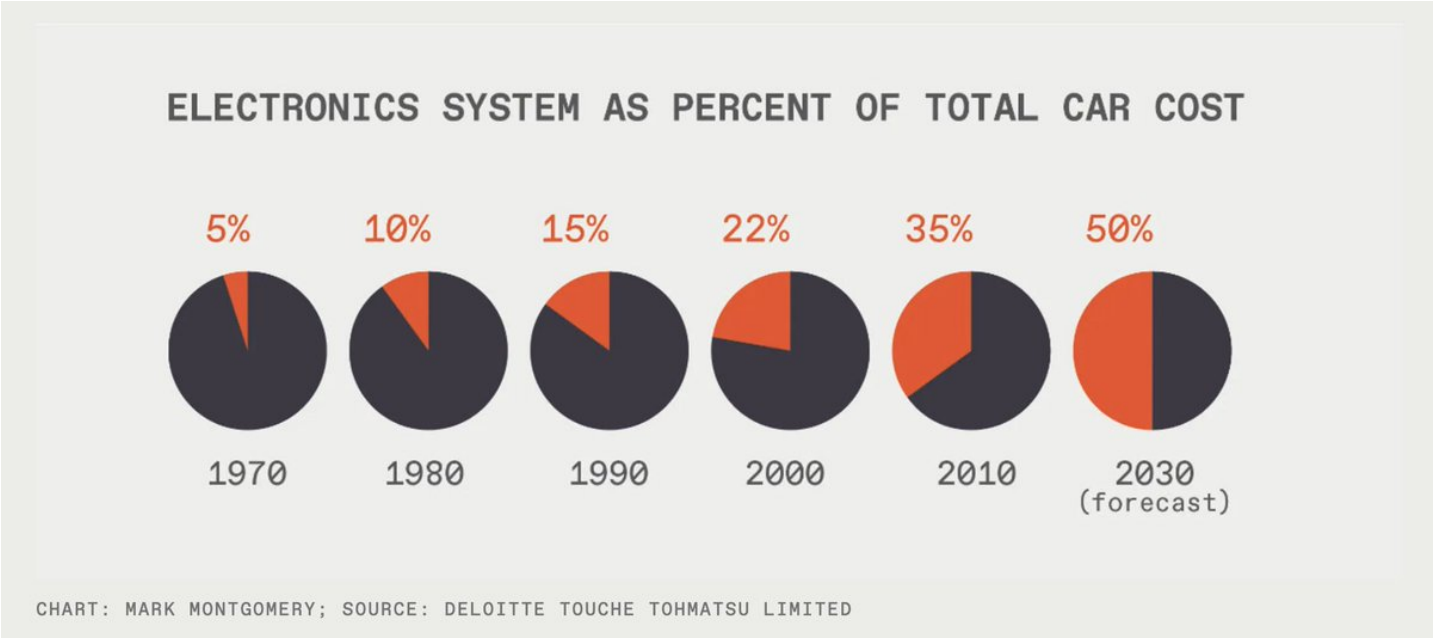
■ The electronics system was 5% of car costs in 1970.

It's expected to be 50% by 2030.

Self-driving is not going to be the only advancement when it comes to "car computers"...

Exhibit A: The Ford F-150 has 150m lines of code!

Look out for car malware, app stores, etc

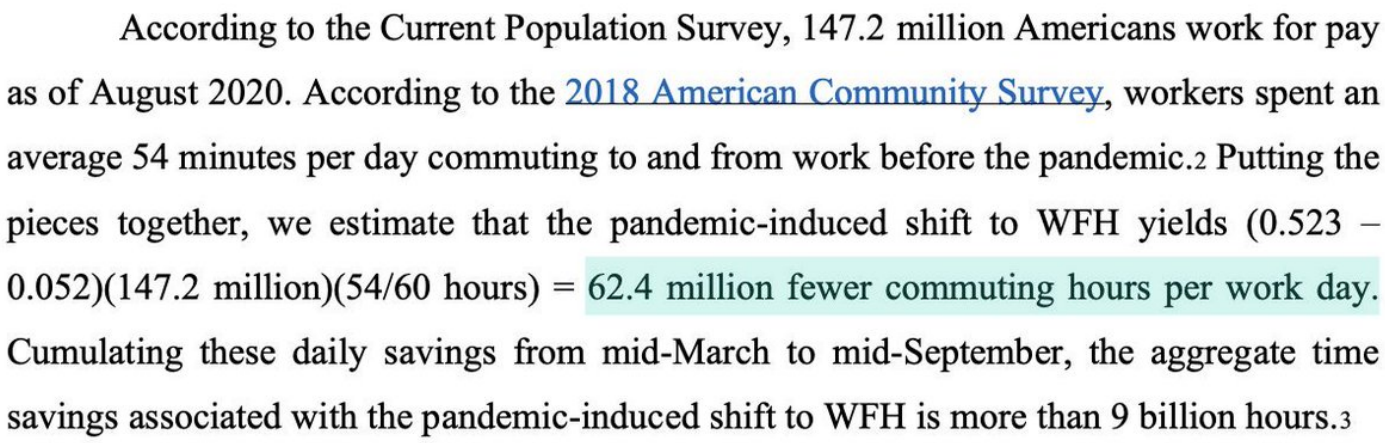


■ Here's one that I can't believe it took folks a pandemic to realize:

As of 2020, Americans saved over 60m commute hours per day with remote work.

Per day!

Assuming 5-day weeks, that's ~16.3B (billion!) hours saved per year, equivalent to:
• 1.9m years
• 23k lifetimes



According to the Current Population Survey, 147.2 million Americans work for pay as of August 2020. According to the 2018 American Community Survey, workers spent an average 54 minutes per day commuting to and from work before the pandemic.[2] Putting the pieces together, we estimate that the pandemic-induced shift to WFH yields (0.523 – 0.052)(147.2 million)(54/60 hours) = 62.4 million fewer commuting hours per work day. Cumulating these daily savings from mid-March to mid-September, the aggregate time savings associated with the pandemic-induced shift to WFH is more than 9 billion hours.[3]

Lots of great comments! Will comb through them and share the best soon.

Gotta catch ■ first.

In the meantime, if you like this stuff...

1. Bookmark this ■. I'll add to it!
2. Give my podcast @sydlis a listen. You'll like this ep on tech ppl feared:

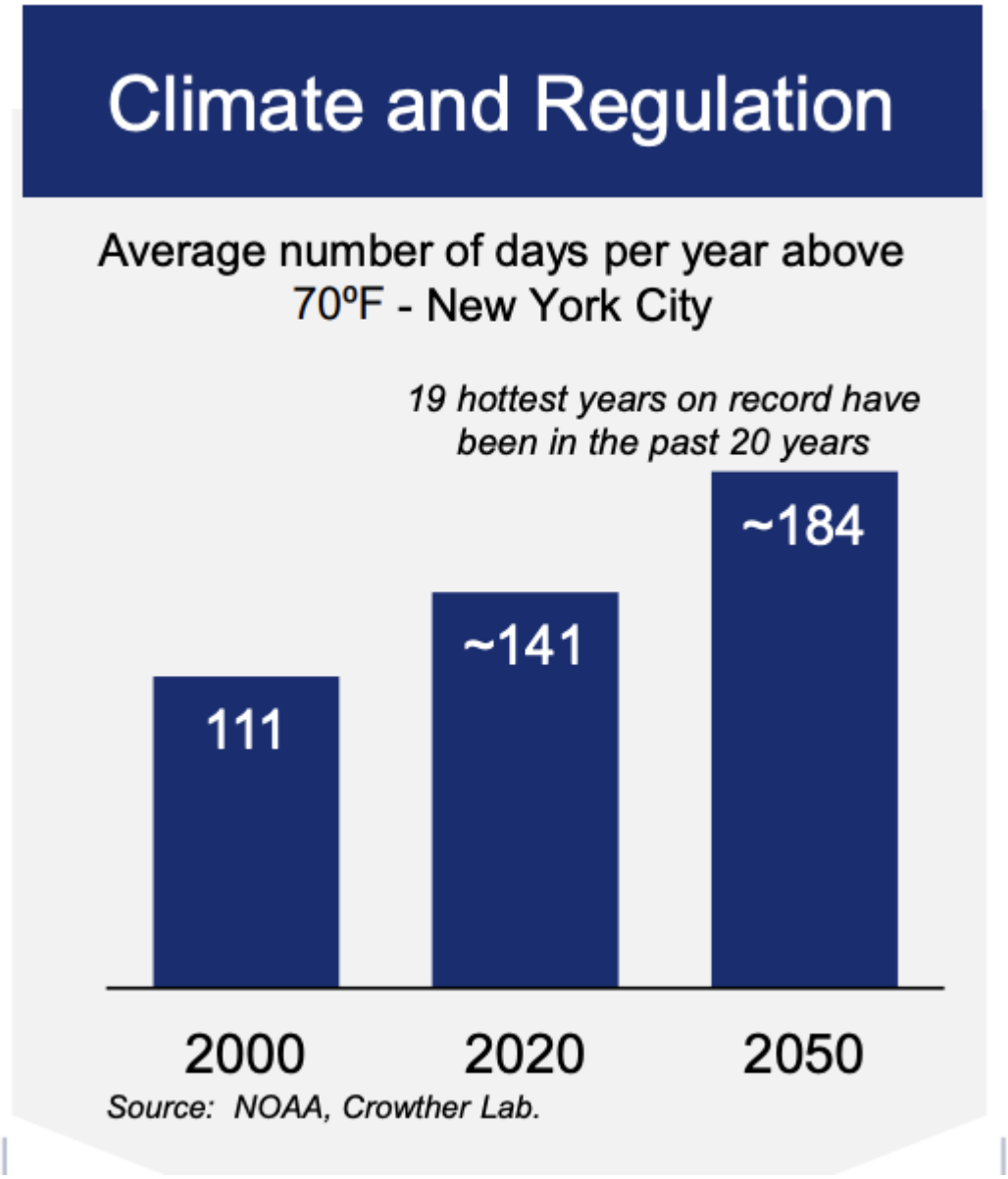
https://t.co/JMbrhJbHZm

@sydlis I'm back with more on solar, lab-grown meat, crypto, eldercare... but first:

■ The stat everyone knows, but not everyone FEELS (yet!)

19 of the hottest years on record were in the last 20.

A concrete example? The # of days 70■F+ in NYC:
• 2000: 111
• 2020: 141
• 2050: 184



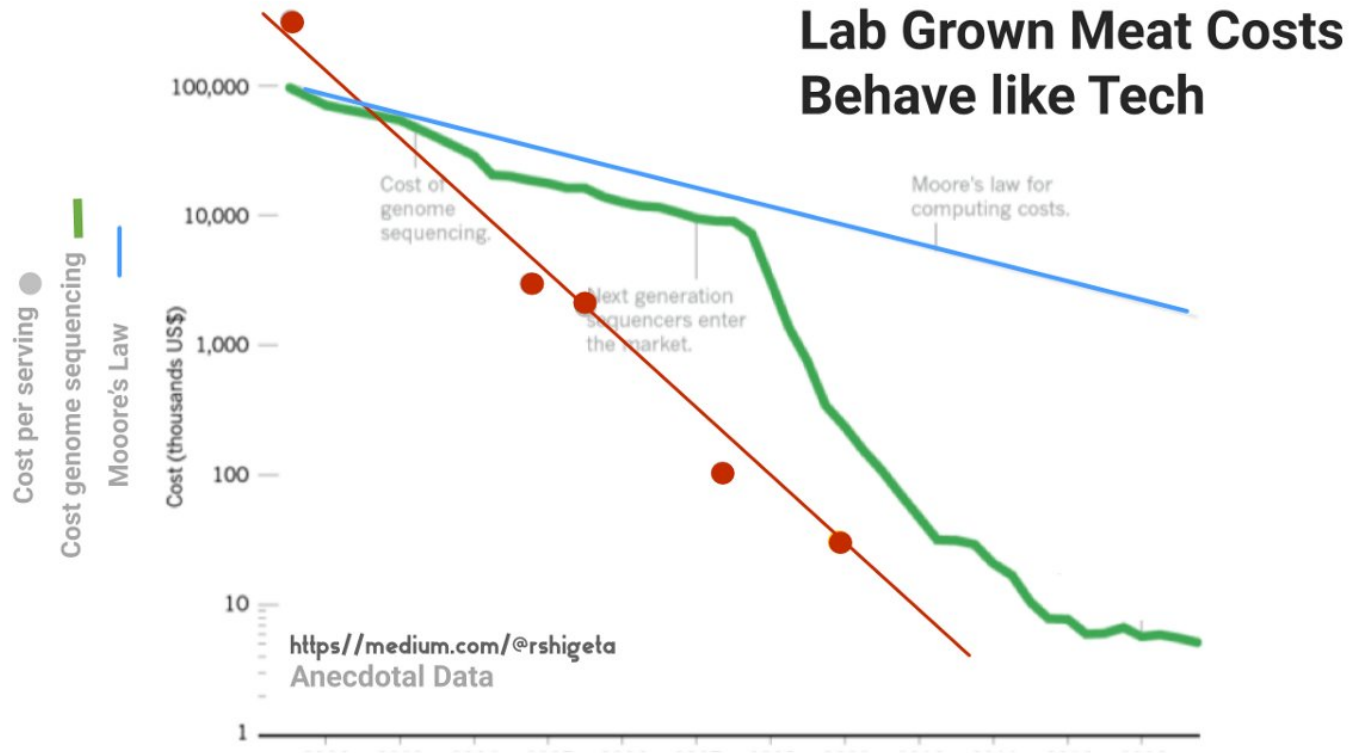
■ The OG lab-grown burger costed $330k in 2013.

Now, 1lb of lab-grown chicken costs $7.70, down from $18 mid-2021.

And 1 kg of lab-grown shrimp?
• 2019: $7398
• 2021: $739
• 2022: $37
• 2026-28: $4

Yet another trend that's challenging Moore's law.

https://t.co/ywyz8tAgCq



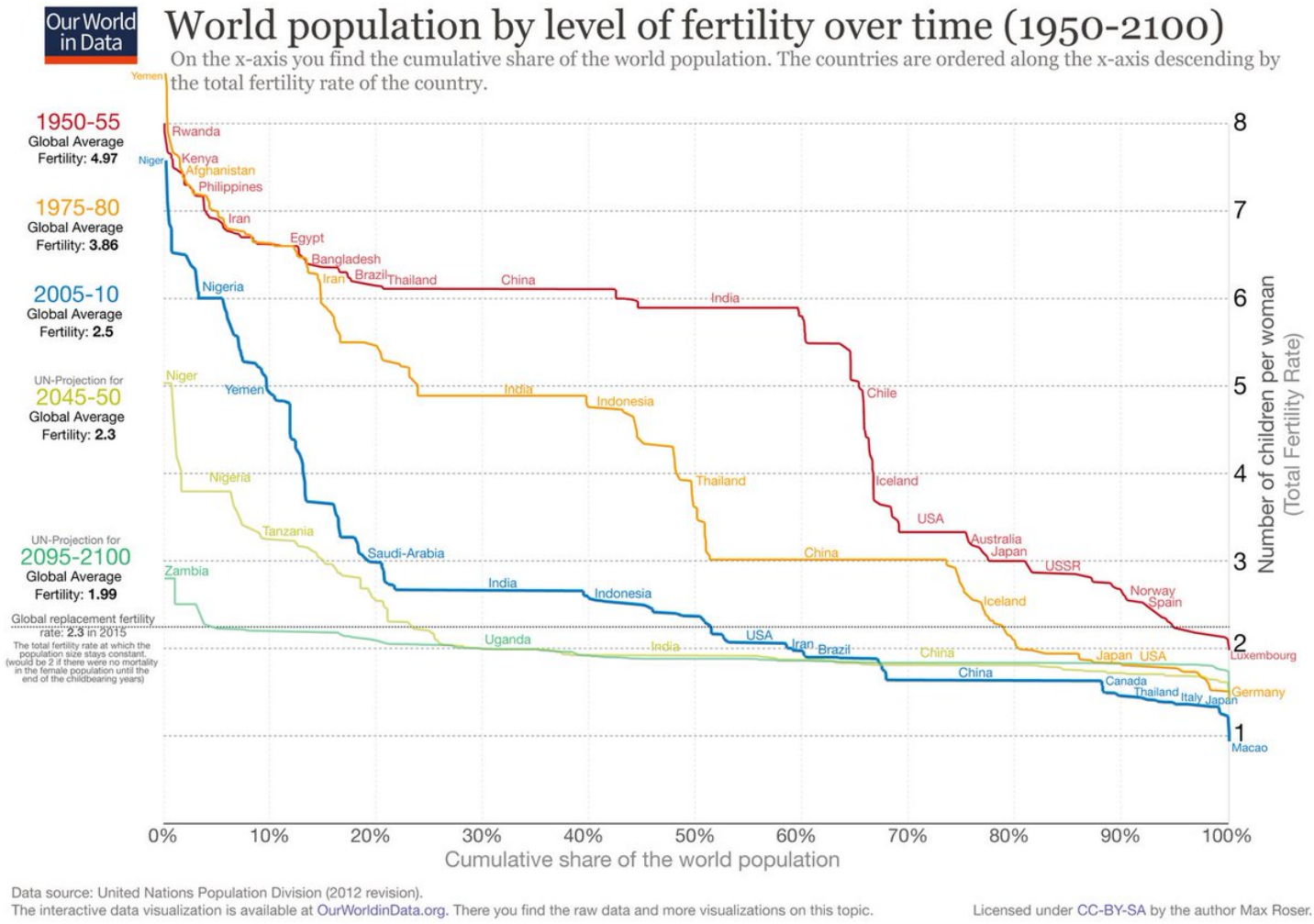
> Yet another example of exponential innovation.
>
> In 2500, people will look back and think it's crazy that we bred and killed animals the way that we do today. pic.twitter.com/v4EryI6Hhp
>
> — Steph Smith (@stephsmithio) January 18, 2022

■ Global fertility has halved in ~50 years.

This might not sound meaningful until you realize that 10k baby boomers turn 65 every day in the US alone.

We can only hope that all these robots we're building will lend a "hand".

h/t to @heykahn @healthwealthgen for calling out



Data source: United Nations Population Division (2012 revision).
The interactive data visualization is available at OurWorldinData.org. There you find the raw data and more visualizations on this topic.

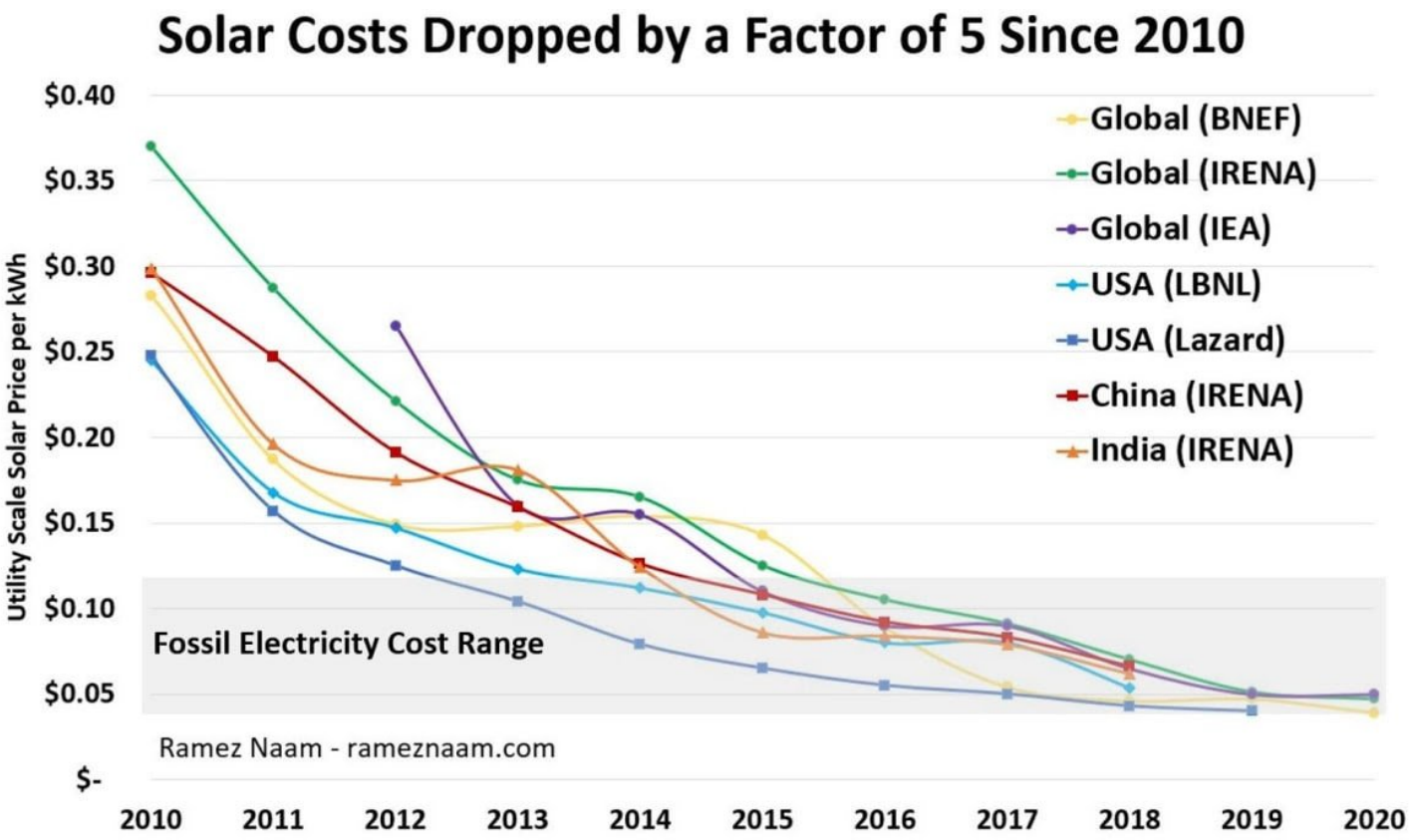
Licensed under CC-BY-SA by the author Max Roser.

@heykahn @healthwealthgen ■ A new solar plant is now 3x cheaper than a new coal plant.

Lower costs + increased capacity = a sunny, economically viable future

■■■■■■■■■■

h/t to @azeem @ExponentialView @ramez @OurWorldInData @tsungxu for their excellent coverage on this topic

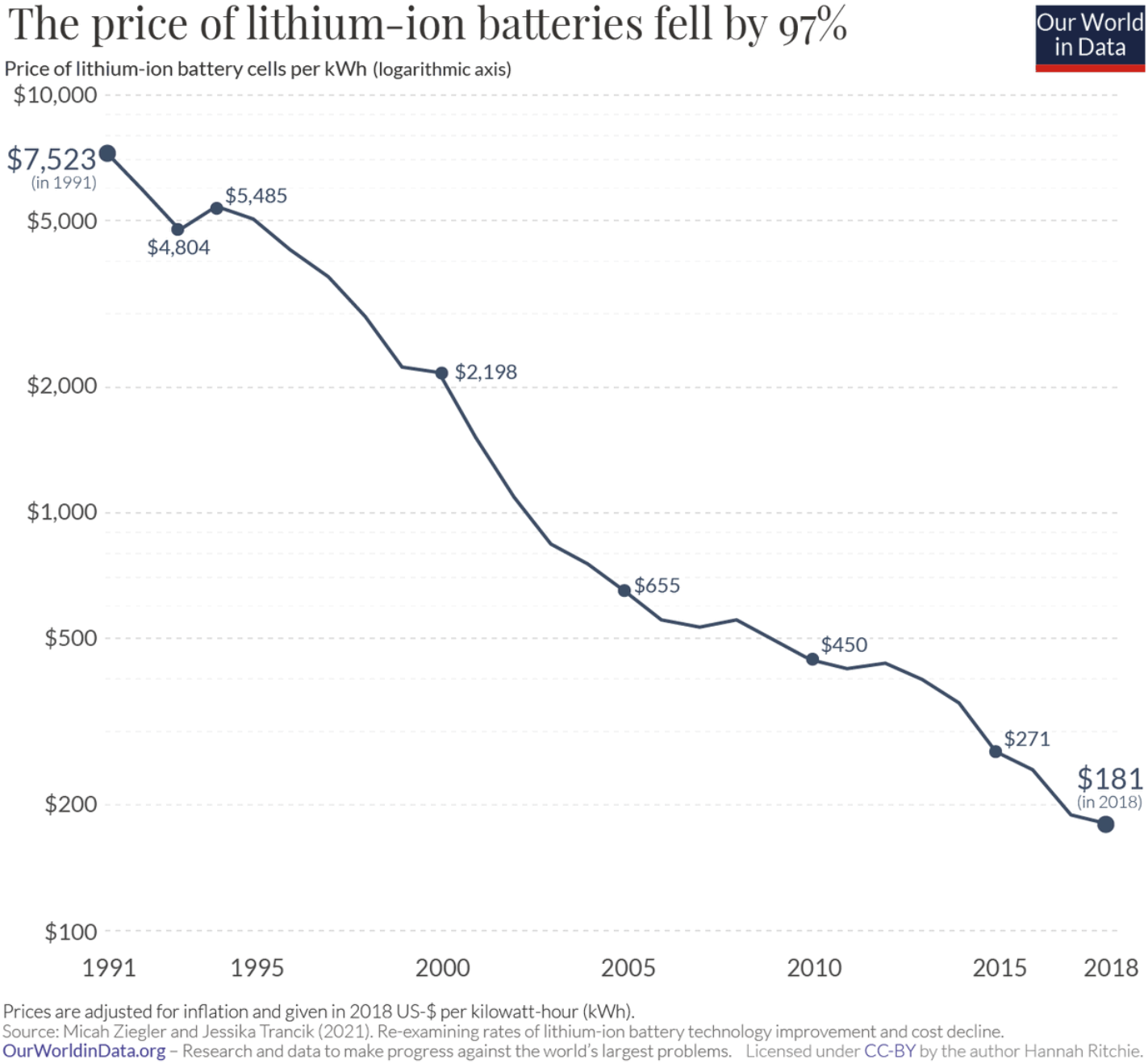


■ Get this: the fastest growing 10-yo company isn't in software. It's a lithium-ion battery company: CATL.

Like semiconductors, batteries are a fundamental layer to many other technologies.

And yep, you guessed it: prices have decreased exponentially.

https://t.co/H9dtaIT2jC



Narrative violation ahead

Think of the fastest growing ten year old companies ever at scale. Which come to mind? Probably a tech company. Maybe Google, Facebook or Amazon.

Nope. It's the leading lithium-ion battery manufacturer. #battery #catl #energytransition #cleantech pic.twitter.com/vGwUezut3w

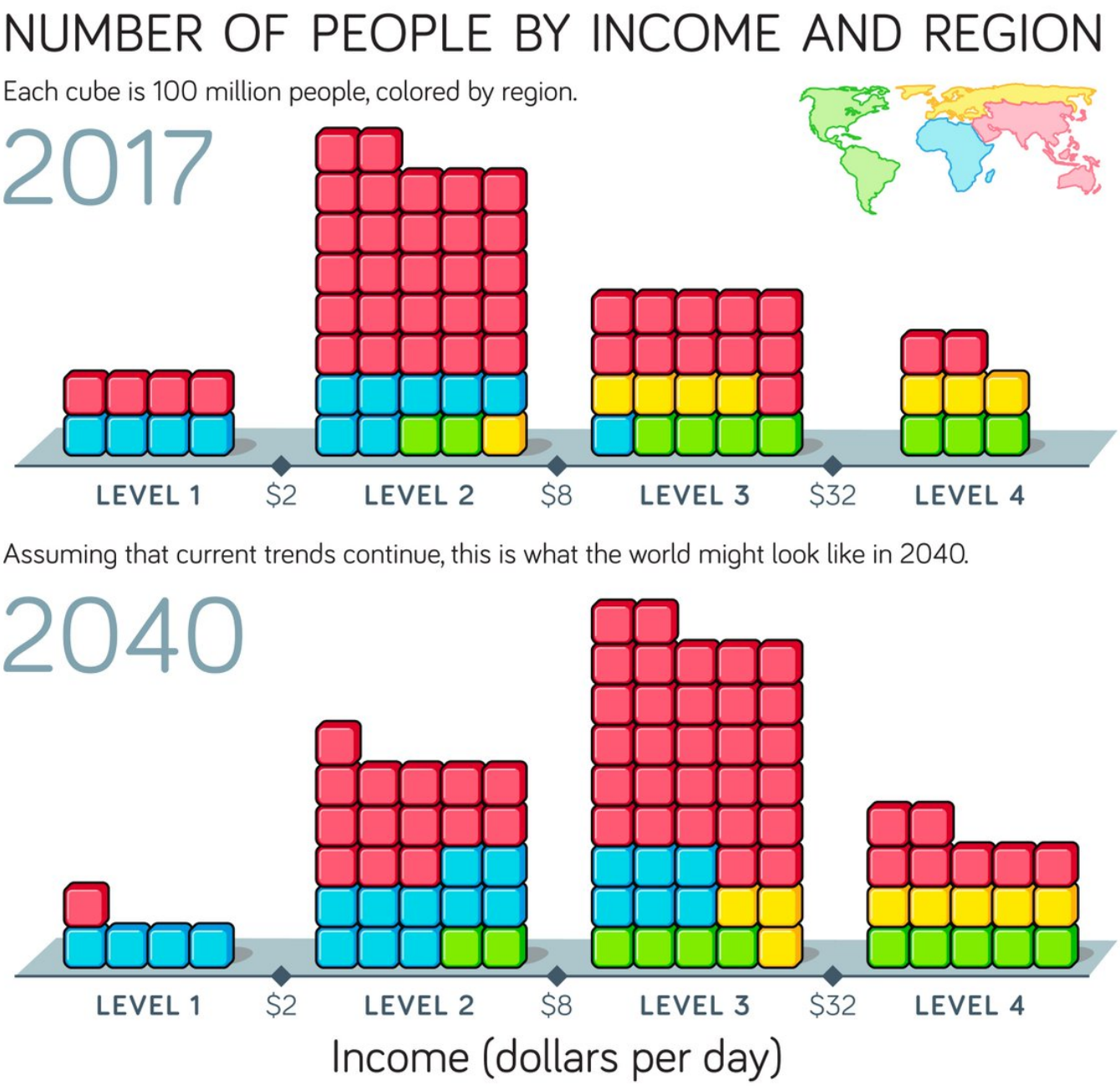
— Tsung Xu (@tsungxu) February 10, 2022

■ Much of the coming decades will be defined by the growing global "middle class", ascending from 3.6B (2018) to 5.5B (2030).

Examples:

■■ India went from 70% to 93% electricity access from 2007 to 2017.

■ Africa reps 3% of global GDP, despite 17% of the pop'n. h/t @iaboyeji



Olympics coverage is down 55% (vs 2018)
Disney channel is down 88% (vs 2014)
Nickelodeon is down 75% (vs 2014)

You know what's not down..? Gaming.

■ Esports viewership outpaces some major sports leagues, while prize money grew 4000x since 1998.

https://t.co/RF6PyiadDK

> To the folks still sleeping on esports....
>
> 4000x (400000%) growth ($177k to $726m) in top prize money since 1998. pic.twitter.com/Z5pQszvOkI
>
> — Steph Smith (@stephsmithio) September 30, 2021

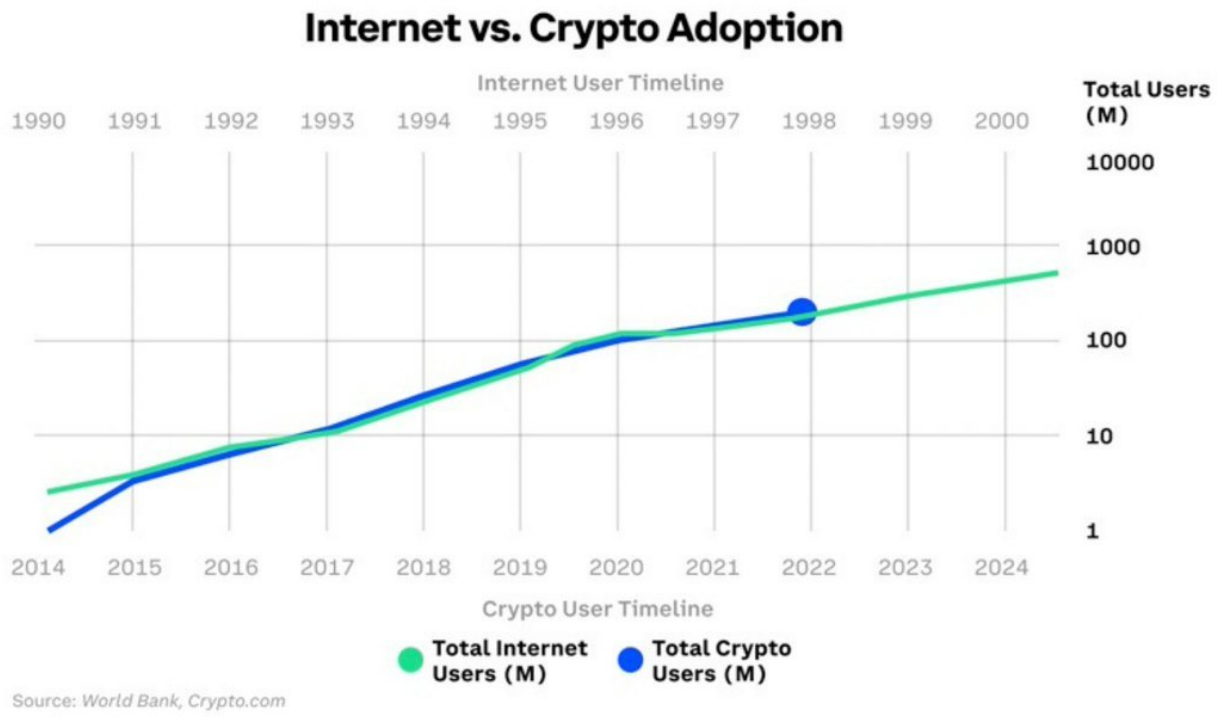
You didn't think I'd get through this entire thread w/o crypto, did you?

The maximalists must be sweating. ■

■ Crypto adoption closely mirrors internet adoption minus a few decades. This trajectory predicts 1B users by 2027.

Others peg as soon as 2023.

h/t @AzazelAyers

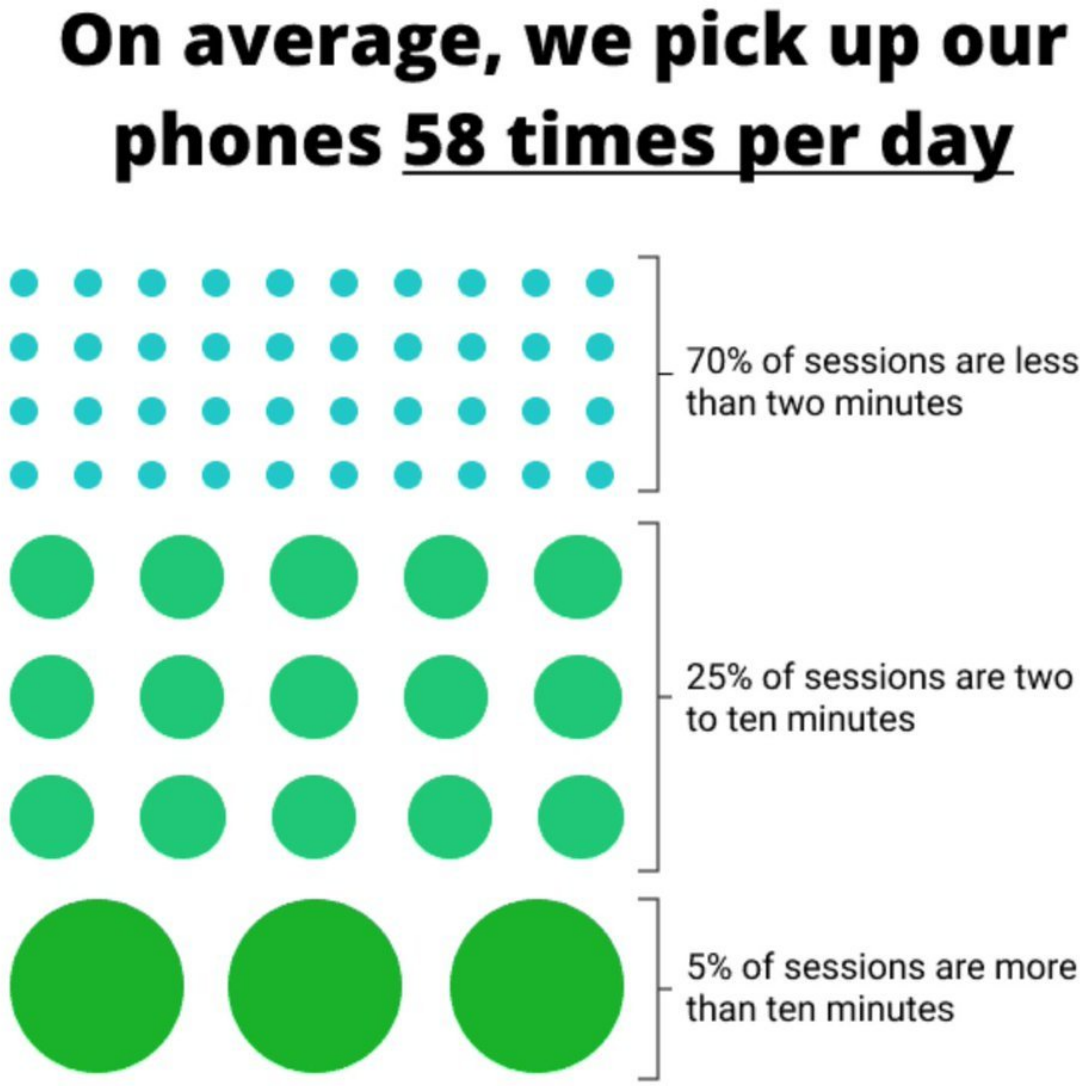


I'll end (for now) with a stat shared by @JustinQuda:

We pick up our phones 58x per day. 58!!!

Here's your reminder to:

|■■■■■■■■■■■■■■■■|
Get some sunshine today
|■■■■■■■■■■■■■■■■|
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\ /



And if you learned a thing or two...

1■■ Comment with a trend I missed! I'll keep adding.
2■■ Give @sydlis a listen. Ep 35 is our most popular.
3■■ Follow me @stephsmithio! Uncovering trends is literally my job, so there's more where that came from.

See you in the future! ■