

# Steps Today, Leaps Tomorrow

## Technology's Role in the Global Re-Opening

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[in/petercoffee](https://www.linkedin.com/in/petercoffee)



# Yes, I Am *Absolutely* Making Forward-Looking Statements



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# It was a wonderful party



In 2018, I traveled 206 days. In 2019, only 183: I cleared three weeks for jury duty



# Did that map remind you of anything?



This ↪ backgrounded the closing credits of “Rise of the Planet of the Apes” (2011)



And then things...  
...changed:

 Peter Coffee  
@petercoffee

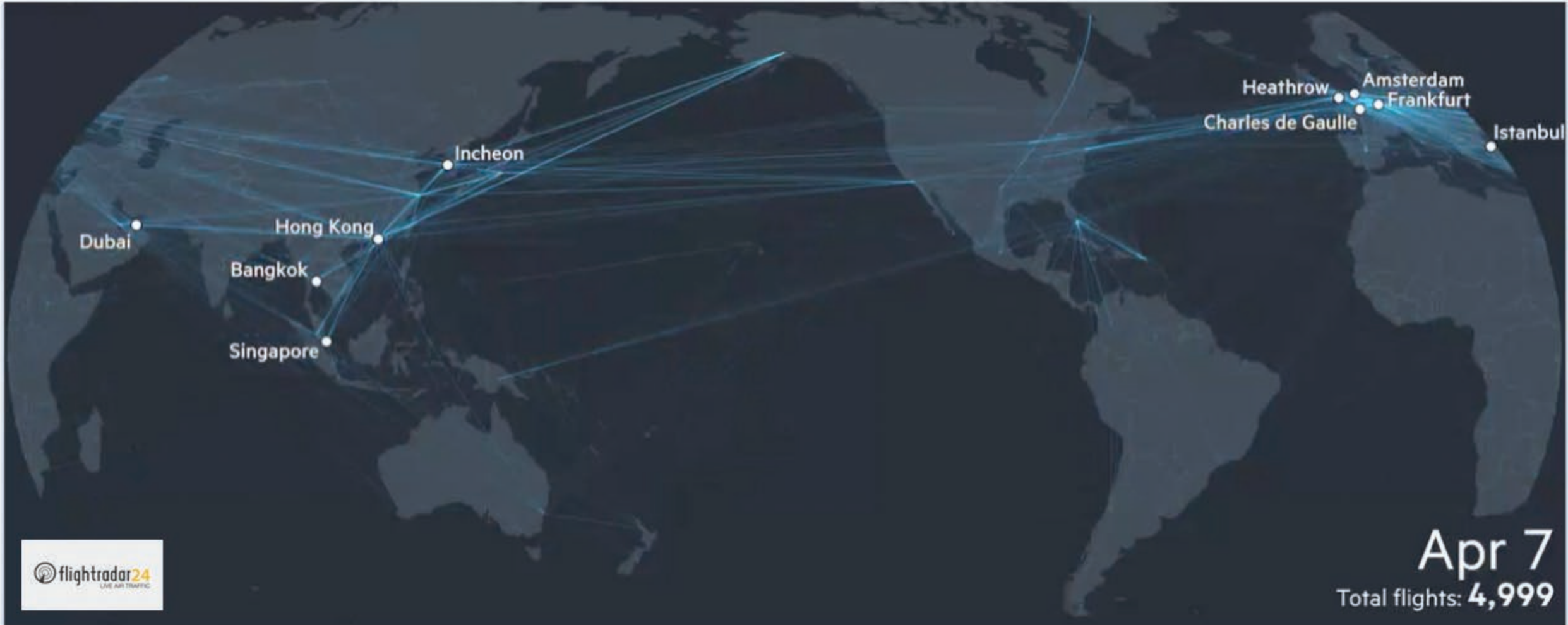
"10 March – A new word has appeared in my inbox: 'coronavirus'. A shipment of branded reusable cups from China is delayed by it. Sales are as normal." It will be difficult, next time, to remember how swiftly trivial nuisance surged into global trauma. @FT



Roasted: a small business's pandemic diary  
Behind the panicked scenes at a London specialty coffee company.  
[ftalphaville.ft.com](https://ftalphaville.ft.com)

# Our former “normal” was so six months ago

In March, we hit the “Pause” button – but you can’t pause indefinitely



# Suspended animation is still science fiction



## Some things can't just stop

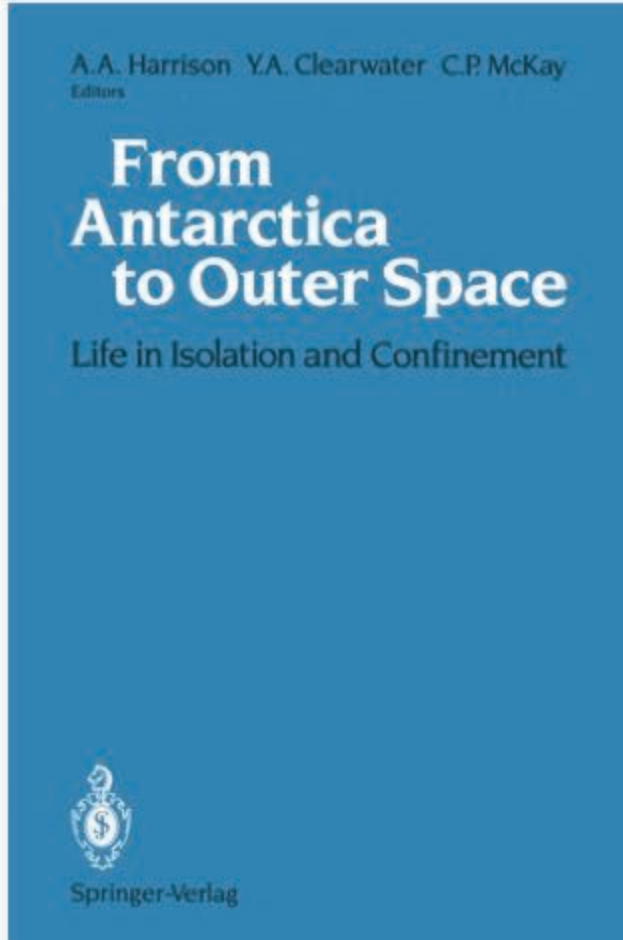
- Hiring & onboarding
- Retirements and transitions of responsibilities
- New product introductions
- New customer acquisitions
- Maintenance of perishable inventories
- Collections and payments

A body can function for days without food, for hours without water, but only for minutes without a pulse

# The leadership needed now: more than supervision



Excitement of novelty • challenge → Anxiety of difficulty • boredom × risk



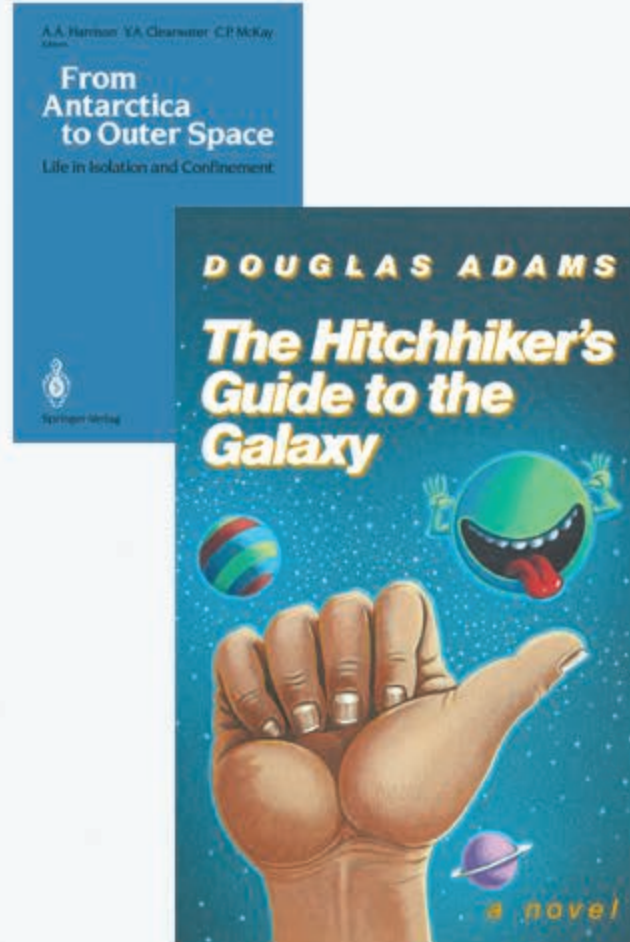
“In 1991, researchers found that morale seemed to dip, and interpersonal tensions rise, when missions reached the three-quarter mark...knowing that the first part of the journey was over, but that a long, tough period still lay ahead.”

– Camilla Cavendish, *Financial Times*, 22 May 2020

# If only we *could* just wake up when it's better



“That’s a pretty unpleasant way to behave, isn't it?” “Sorry, I'm a bit out of touch.”



“In 1991, researchers found that morale seemed to dip, and interpersonal tensions rise, when missions reached the three-quarter mark...knowing that the first part of the journey was over, but that a long, tough period still lay ahead.” (Non-fiction)

– Camilla Cavendish, *Financial Times*, 22 May 2020

“We programmed the computers to revive us when it was all over. They were index-linked to the Galactic stock market prices, so that we’d all be revived when everybody else had rebuilt the economy enough to afford our rather expensive services.” (Fiction)

– Douglas Adams, *The Hitchhiker's Guide to the Galaxy*, 1979



## Quotable Quote

“There are decades where nothing happens; and there are weeks where decades happen.”

# Vladimir Lenin > Quotes > Quotable Quote



“There are decades where nothing happens; and there are weeks where decades happen.”

– Vladimir Ilyich Lenin

tags: [lenin](#), [marx](#), [revolution](#)

PS: a “Marxist” is an economist who notices that Uber drivers break even. Lenin was the revolutionary who’d want, today, to put the Uber drivers in charge.

“Business cultures, organization and working practices **have barely begun to adapt** to what the technology now allows. The COVID-19 lockdown has given us all a jolt in the right direction, but **we are still at the very beginning** of this new wave of change.”

Phil Wainewright, Diginomica  
12 June 2020

# I'm not here to offer comfort



May 9, 2012, 10:37am EDT

## If You're Going Through Hell, Keep Going - Winston Churchill



**Geoff Loftus** Contributor ©

Leadership

*I write about leadership in history, pop culture and business.*

Seventy-two years ago tomorrow, a chubby, stoop-shouldered, funny faced man with a speech impediment took a new job. The man was 65-years old and until a year earlier was generally considered to be a crackpot and a political has-been. His taking the new job was one of the most momentous events of the entire 20<sup>th</sup> Century.

The man was Winston Churchill, and the job was Prime Minister of the United Kingdom. On May 10, 1940, the British looked to be finished. They stood alone against the vicious and victorious Nazis.

**It is time** to stop congratulating ourselves on having gotten through these months

**It is time** to notice that what we are needing to do right now, we were already hoping to do in the next few years

**It is *not* a time** to try to turn back the clock and revert to what we had before

- In some cases, it no longer exists
- In other cases, people now know they can have something better

I *am* here to encourage action – and identify opportunity

“If a silver lining can be found, it might be in the **falling barriers to improvisation and experimentation** that have emerged among customers, markets, regulators, and organizations. In this unique moment, **companies can learn and progress more quickly than ever before.**”

– McKinsey & Co., 22 April 2020

I *am* here to encourage action – and identify opportunity

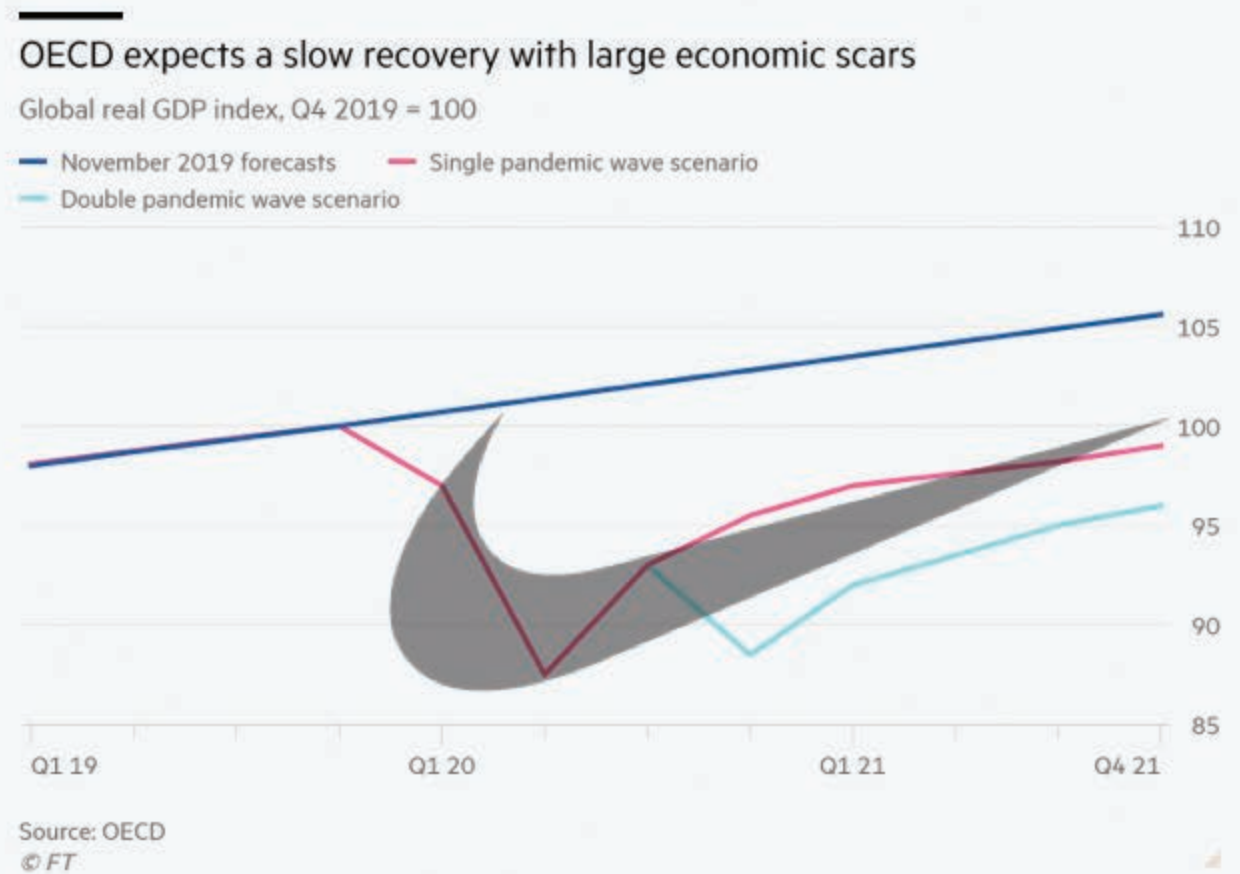


# A different kind of “elephant in the room”



Sometimes, the elephant goes through like a circus parade: Cleaning up isn't fun, but it's do-able – and you know when you're done.

This time, the elephant is coming in and making itself comfortable. You may need new furniture that can bear its weight. You may need to rearrange some things.



# A different kind of “elephant in the room”

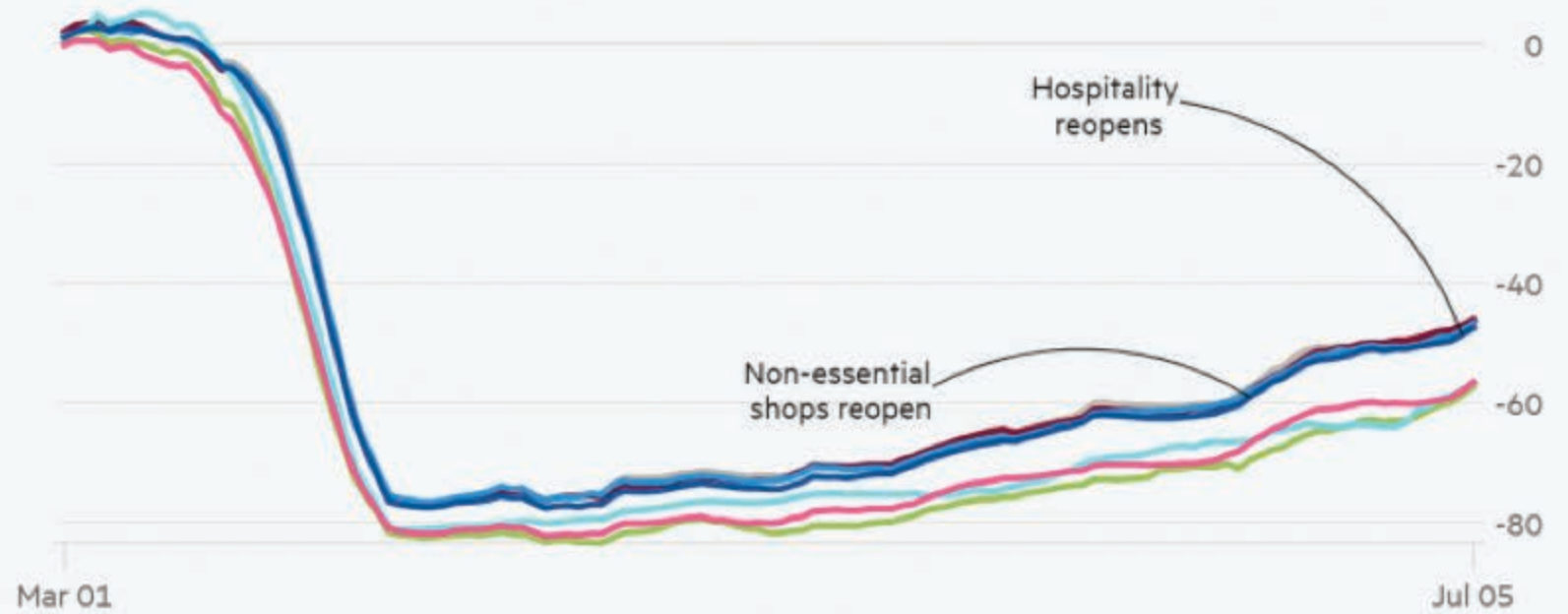


A “swoosh”  
recovery  
isn’t just a  
projection

Consumers make more trips to retail and recreation venues but mobility is still low

% Change to pre-virus average, 7-day average

UK Greater London Glasgow city Bristol city  
Greater Manchester West Midlands West Yorkshire



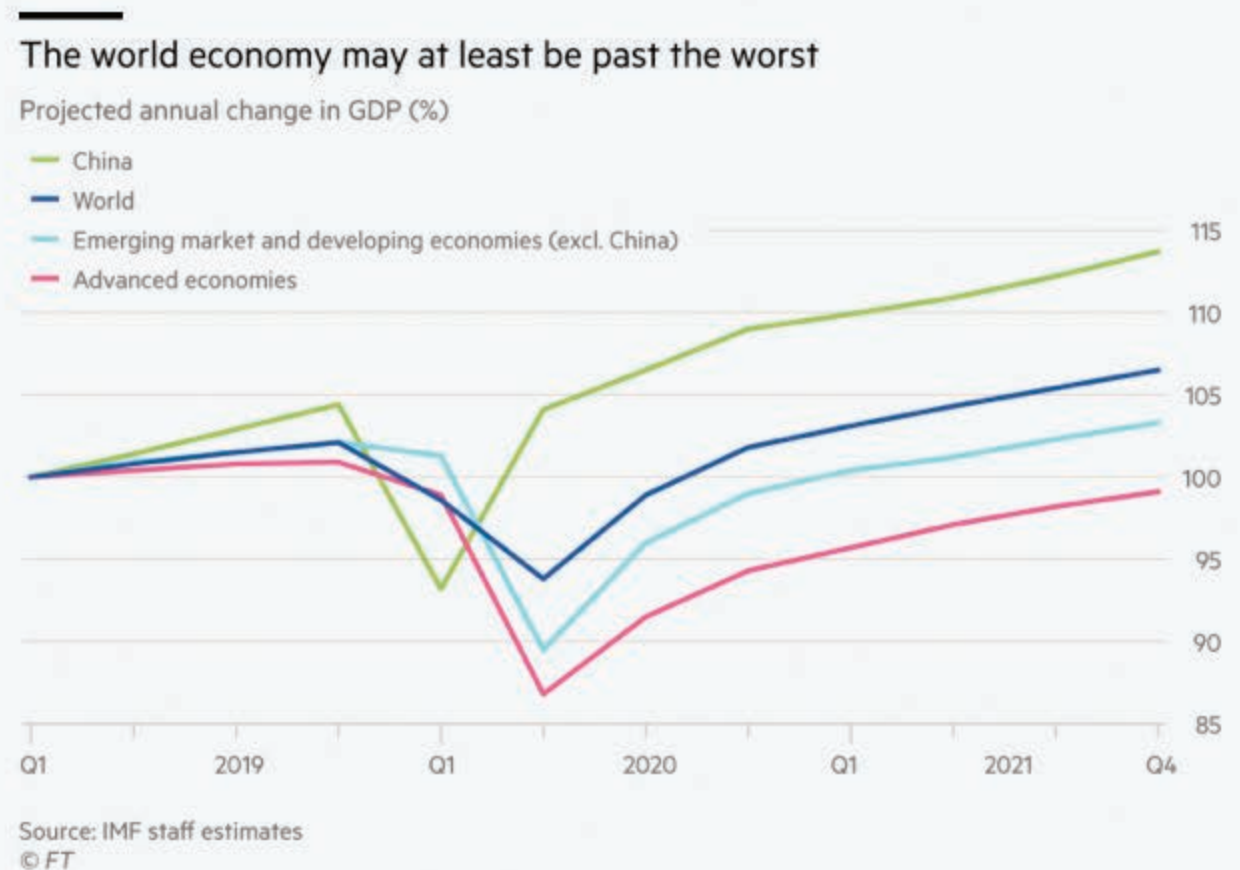
Reopening dates refer to England  
Source: Google mobility report  
© FT

# The elephant steps harder in some places than others



Don't let anyone say anything about "the recovery" without qualifying the statement as to

- Region
- Industry
- Timing
- Assumptions
- Risks





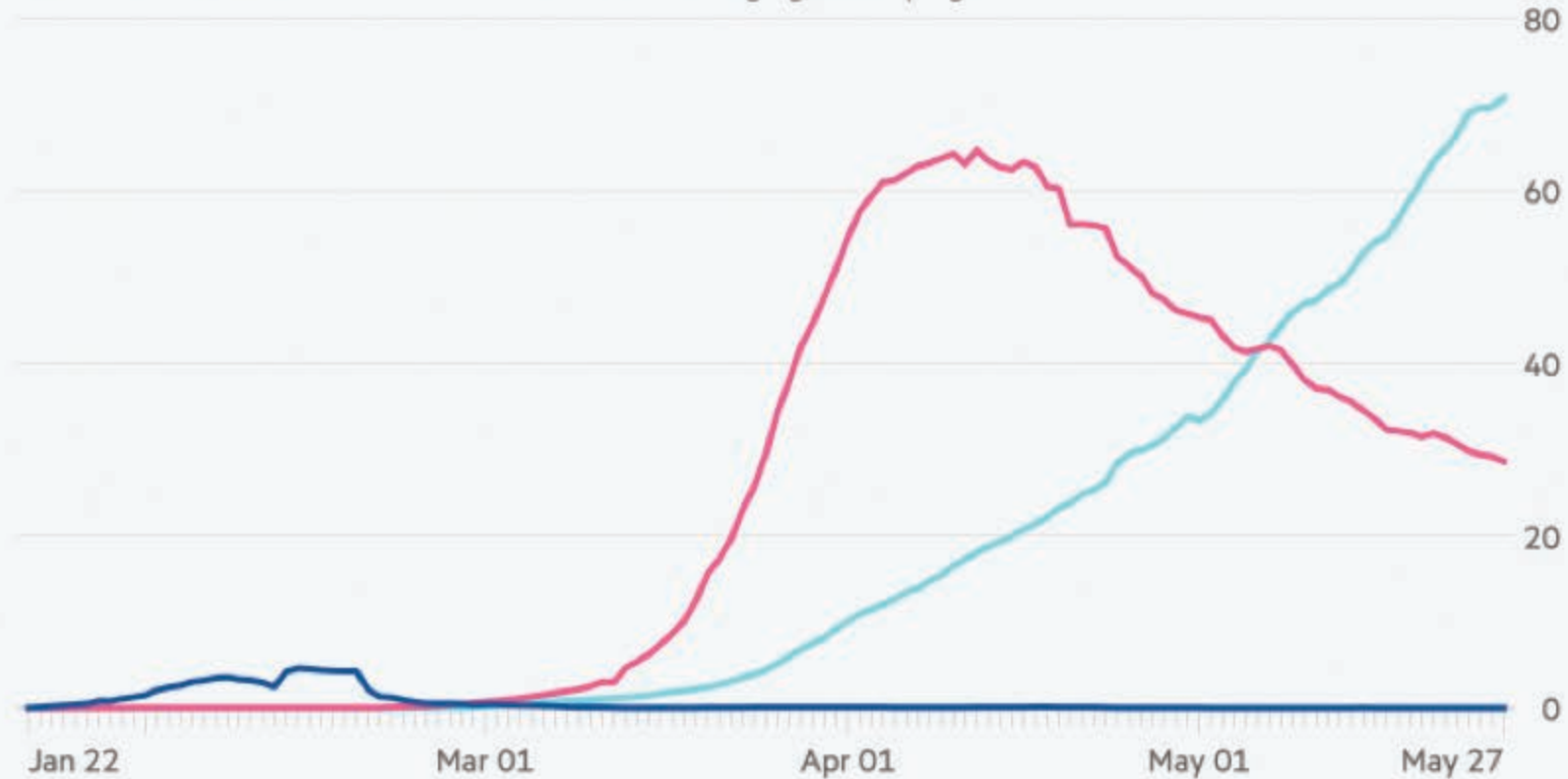
# This is why it's not enough to just clean up *your* room



## Covid-19 is now taking off in emerging and developing countries

Daily new Covid-19 cases (000s)

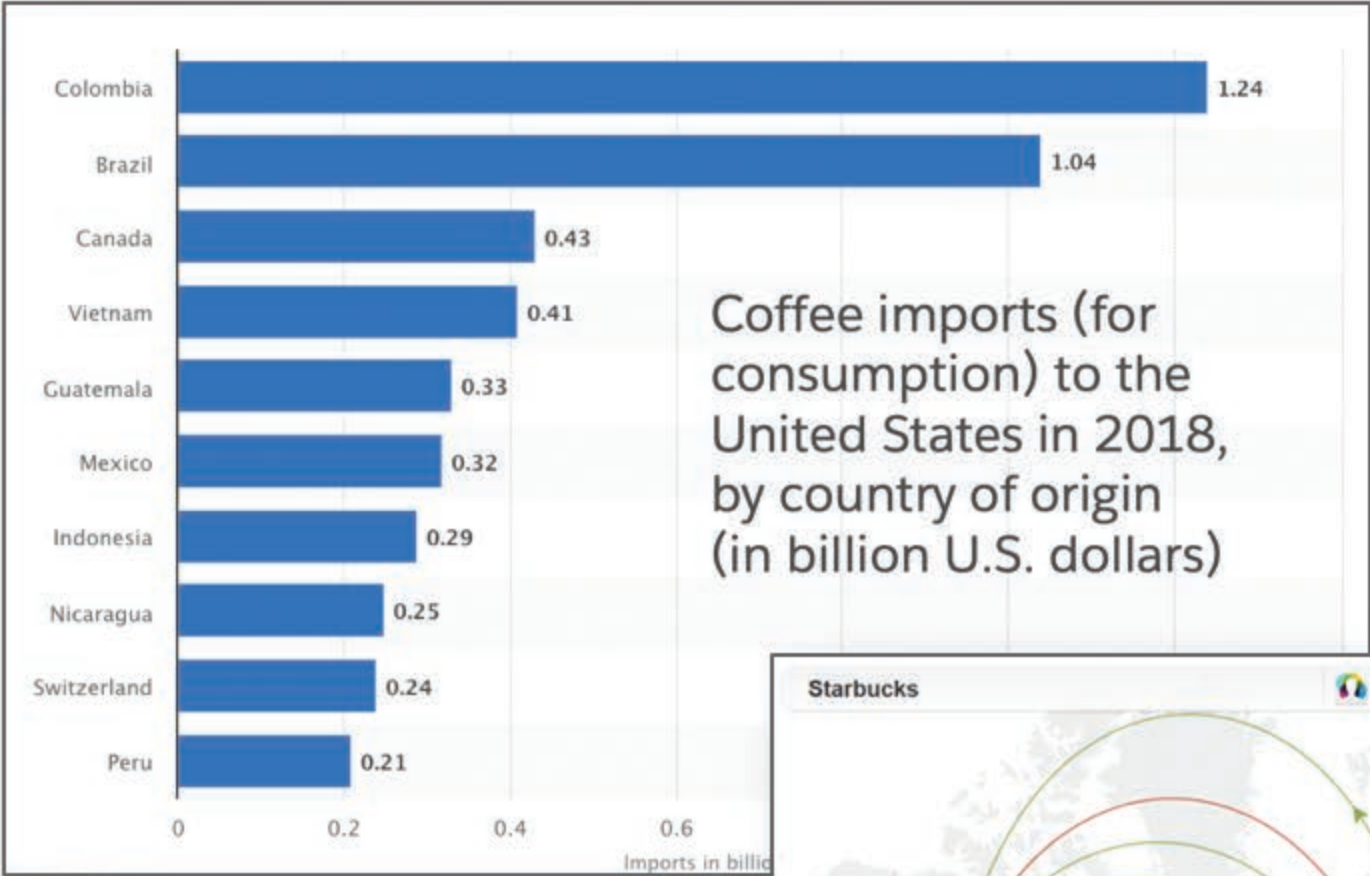
— China    — Advanced economies    — Emerging/developing excl. China



Source: Johns Hopkins University; World Bank

© FT





Coffee imports (for consumption) to the United States in 2018, by country of origin (in billion U.S. dollars)

“A humble cup of coffee requires 29 firms to collaborate across 18 countries, according to one estimate.”

*The Economist*  
26 March 2020



# Yeah, it's about more than my coffee

## Managerial functions of vaccine management:

- Estimating needs for vaccines & equipment
- Coordination, preparation and ordering
- Overseeing systems for optimal use and maintenance of major cold chain equipment and transportation

## Operational functions of vaccine management:

- Carrying out deliveries
- Updating stock records (per batch);
- Monitoring storage temperatures & other conditions



**Peter Coffee**  
@petercoffee

"A vaccine manufacture . . . might source several thousand ingredients to make a vaccine. But each material is coming from factories with hundreds of sources, and those sources have sources." @FT



Tim Harford: can the pandemic help us fix our technology problem?  
The history of innovation has plenty of lessons on how to fight the corona crisis and transform our future  
[ft.com](#)

12:30 PM · Jun 12, 2020 · [Twitter Web App](#)

[View Tweet activity](#)

1 Retweet and comment 1 Like



**Peter Coffee** @petercoffee · Jun 12  
Replying to @petercoffee

"An extract from the soap-bark tree may enhance effectiveness or stretch doses...the bark is harvested in Peru, Chile and Bolivia during summer months of southern hemisphere. Last year's crop was harvested pre-coronavirus; this year's harvest will not begin until November" (Ibid.)

# Yeah, it's about more than my coffee

"We don't know which vaccines will be successful. This process is typically sequential," Dr. David Ho, a professor of epidemiology and researchers must build up manufacturing capacity used. "We cannot afford a sequential process. We need to start the manufacturing capacity today, and the problem is it requires significant investment," he said.

used. "We cannot afford a sequential process. We need to start the manufacturing capacity today, and the problem is it requires significant investment," he said.

[www.supplychaindive.com/news/coronavirus-vaccine-supply-chain/579835/](http://www.supplychaindive.com/news/coronavirus-vaccine-supply-chain/579835/)



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[ft.com](https://www.ft.com)

12:30 PM · Jun 12, 2020 · [Twitter Web App](#)

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# It's the stops and starts that spoil the syncs



## People Out of Sync

**Example:** A business buyer is working with an unmotivated Sales Rep, who is using the latest CRM/SFA technology with the world class Miller Heiman sales process.

**Outcome:** A lost sale and lost potential long-time customer are due to the unmotivated, under-performing sales resource at the point of contact.



## Process Out of Sync

**Example:** A customer has received an email with an upgrade offer and has responded that they are interested, but no one has contacted them. The company was employing the latest marketing automation and customer success tools, but the process was poorly executed and the customer's request landed in an unattended work queue.

**Outcome:** Lost up-sell opportunity, largely due to inefficient process design.



## Technology Out of Sync

**Example:** A classic example here is a call center experience where the consumer is kept on hold while the system takes 60 seconds to look up a payment status.

**Outcome:** Poor customer experience, largely due to technology limitations.

Yeah, it's about more than my coffee

The key factor governing how quickly these manufacturing sectors recover will be ability of companies to re-mobilize complex multi-country supply chains, which in turn depends on their supply chain mapping and risk management.

Baker McKenzie  
& Oxford Economics

## The role of Blockchain in the recovery process

- SHORT-TERM**  
The COVID-19 crisis has revealed a general lack of connectivity and data exchange built into global supply chains. **ROI** should be short-term focus.
- MID-TERM**  
Future **resiliency** will depend on building transparent, inter-operable and connective networks.
- LONG-TERM**  
The "visibility, traceability, and interoperability" of blockchain platforms to better connect and improve the resilience of supply chains will also be critical to getting the recovery underway in the world beyond the COVID-19 crisis, and enable a **sustainable innovation**.



Sources: IDC European Blockchain Practice, 2020

9



Peter Coffee  
@petercoffee

"A vaccine manufacture . . . might source several thousand ingredients to make a vaccine. But each material is coming from factories with hundreds of sources, and those sources have sources." @FT

*"We cannot afford to continue operating in the dark."*

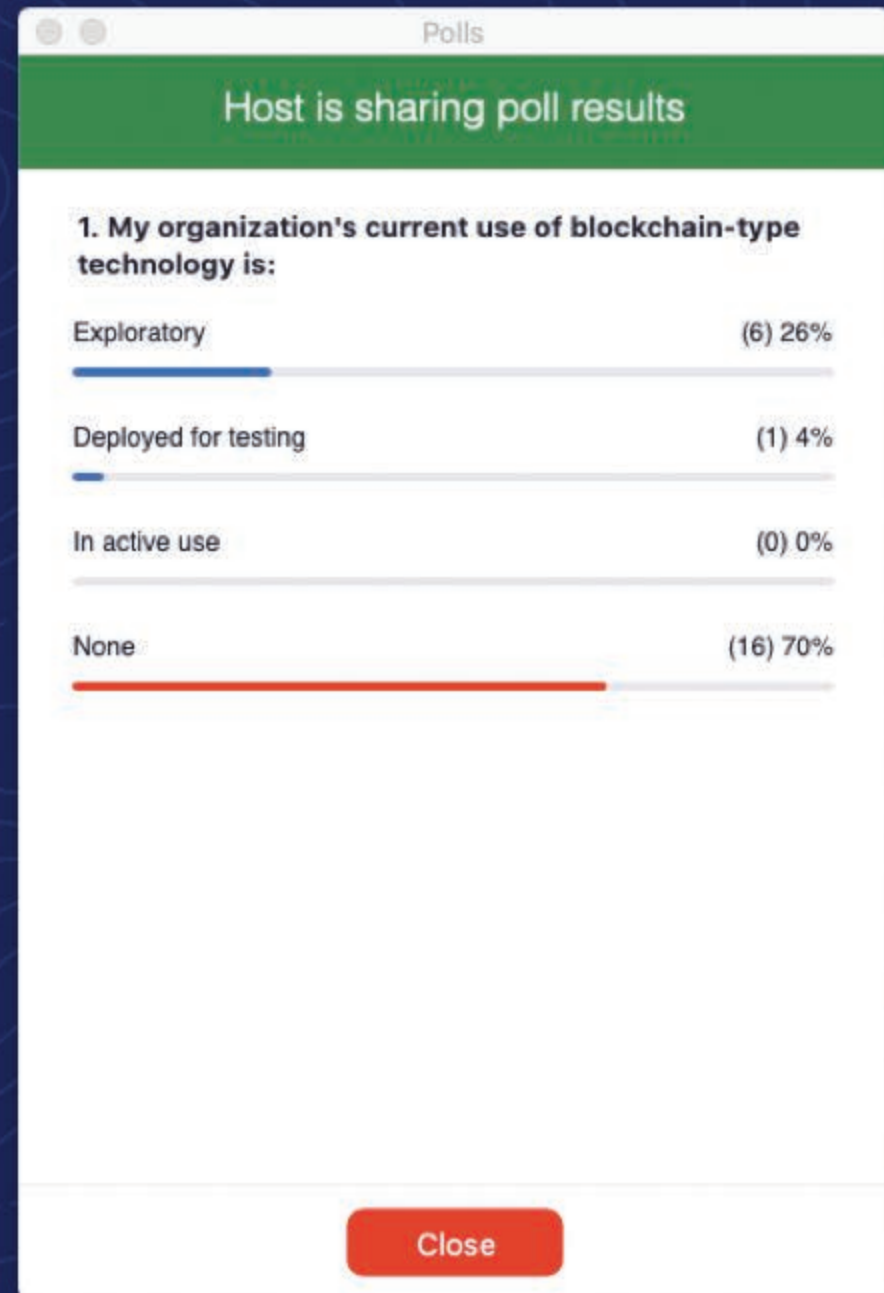
Mariam Obaid Al Muhairi, Project Manager at the Dubai Future Foundation



Peter Coffee @petercoffee · Jun 12  
Replying to @petercoffee

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# Poll 1






# ~~An update of what's failed us?~~ → Let's do something better



1,112 views | Jun 22, 2020, 06:47pm EDT

## Digital Delays: Silos Are At It Again, Impeding Progress

Joe McKendrick Contributor @ Enterprise Tech  
*I track how technology innovations move markets and careers*



Even the best digital efforts at

A few years ago, I soug

policy, and was floored when our

three times as high as the rate we

good consumer, I went around see

other companies, which all came i

higher than what we were paying.

cheaper, carrier and thought no m

piqued, and I made a bunch of cal

Peter Coffee @petercoffee

"Blockchain data is embedded with security and provenance (it can be verified and thus trusted); it can travel freely...shared, combined and virtualized with simple permissions instead of tens of thousands of dollars of infrastructure." OK, but "and" > "or"

"Existing policy data was mainf out of pricin is clea

COMMODITIES JUNE 2, 2020 / 1:12 PM / A MONTH AGO

## Blockchain group says pilot test shows promise for oil and gas operators

Liz Hampton 2 MIN READ

(Reuters) - An oil and gas consortium testing blockchain distributed ledger software said results of its pilot were promising, paving way for the group's members to start using the technology at production sites.

The OOC Oil & Gas Blockchain Consortium, a 10-company group including ConocoPhillips, Equinor, Exxon Mobil Corp, Repsol and Royal Dutch Shell, tested blockchain technology from supplier Data Gumbo Corp to automate payments for oilfield water-handling.

Peter Coffee @petercoffee

"#Blockchain is used to simplify and shorten loan application & approval by removing intermediaries and inherent delays... Since the end of January China has distributed loans > \$200 million to 87 businesses using a cross-border blockchain platform." @IDC



How Blockchain Can Help in the COVID-19 Crisis and Recovery

While COVID-19 may present challenges to the blockchain industry, in the short term, it will also unlock new opportunities in the mid and longer-term.

blog-idcuk.com

6:39 AM · Jul 1, 2020 · Twitter Web App

# Supply chains → partner networks: data requires redesign



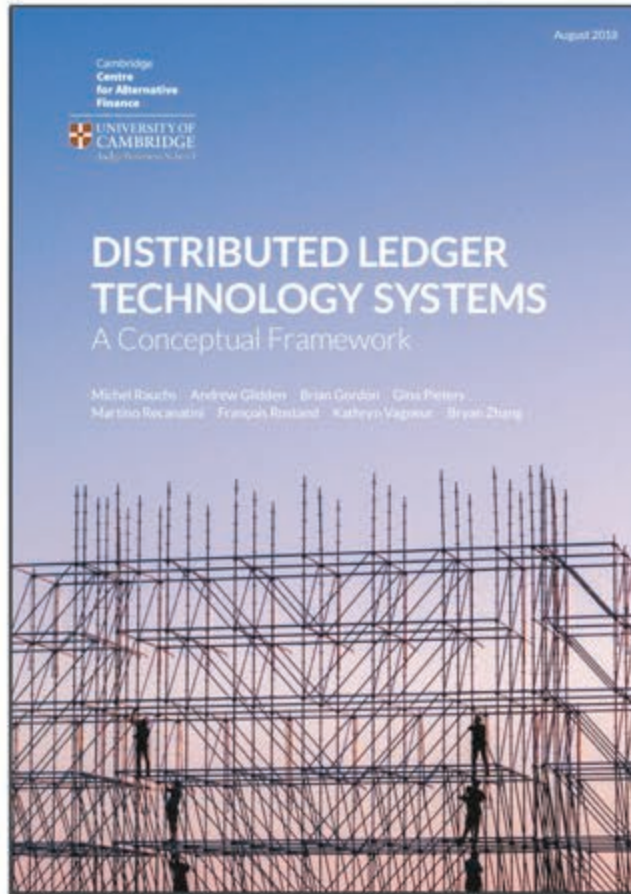
Salesforce Blockchain is a low-code blockchain platform, built on the open source technology of Hyperledger Sawtooth, that lowers the barrier for creating trusted partner networks

The screenshot displays the Salesforce Blockchain interface for an 'Ethical Cotton Network'. On the left, there are navigation panels for 'Details', 'Partners', 'Data', 'Map', 'Permissions', and 'Rules'. The main area features a network diagram titled 'Ethical Cotton Network' with a 'Filter View' dropdown and a table of network partners.

NAME &	STATUS	RELATIONSHIP
Chalawa's Cotton Farm	Approved	Member
Fast Shipping Company	Approved	Member
Organic Cotton Factory	Approved	Member

At the bottom of the screen, there is a progress bar with numerical markers: 0, 0.2, 0.4, 1, 1.2, 1.4. The word 'Peru' is visible on the left side of the progress bar.

# Note: not every distributed database is a “blockchain”

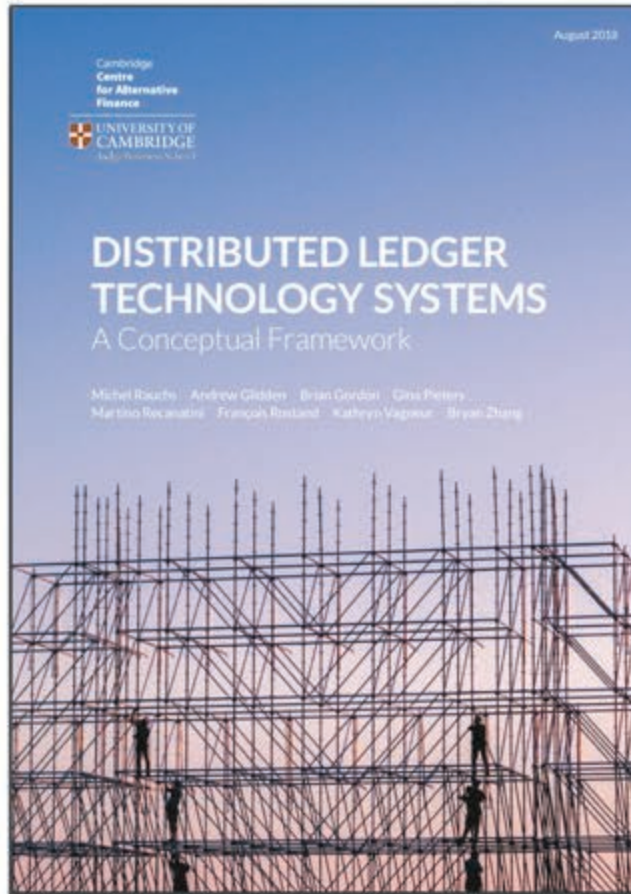


A DLT system needs to be **capable of ensuring** the following properties, either in the existing system or with minimal changes to the system.

- a. **Shared recordkeeping:** enable multiple parties to collectively create, maintain, and update a shared set of authoritative<sup>31</sup> records (*the 'ledger'*).
- b. **Multi-party consensus:** enable all parties to come to agreement on a shared set of records
  - i. If permissionless, without relying on a single party or side-agreements, and in the absence of ex ante trusted relationships between parties; and
  - ii. If permissioned, through multiple record producers who have been approved and bound by some form of contract or other agreement.
- c. **Independent validation:** enable each participant to independently verify the state of their transactions and integrity of the system.
- d. **Tamper evidence:** allow each participant to detect non-consensual changes applied to records trivially.
- e. **Tamper resistance:** make it hard for a single party to unilaterally change past records (i.e. transaction history).



# Note: not every distributed database is a “blockchain”



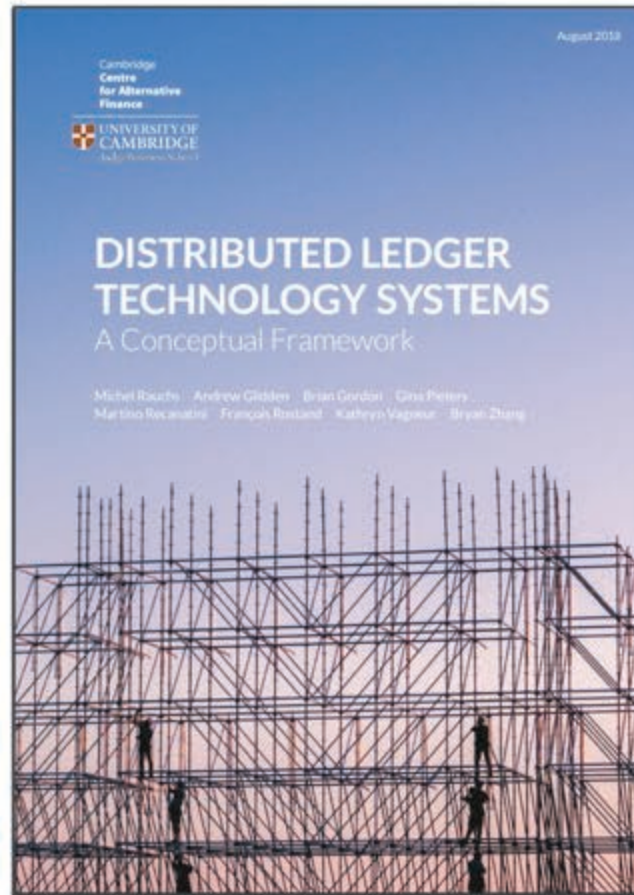
We therefore propose the following **formal definition**:

A DLT system is a system of electronic records that

- i. enables a network of independent participants to establish a consensus around
- ii. the authoritative ordering of cryptographically-validated ('signed') transactions.<sup>32</sup> These records are made
- iii. persistent<sup>34</sup> by replicating the data across multiple nodes,<sup>35</sup> and
- iv. tamper-evident<sup>36</sup> by linking them by cryptographic hashes.<sup>36</sup>
- v. The shared result of the reconciliation/consensus process - the 'ledger' - serves as the authoritative version for these records.<sup>37</sup>



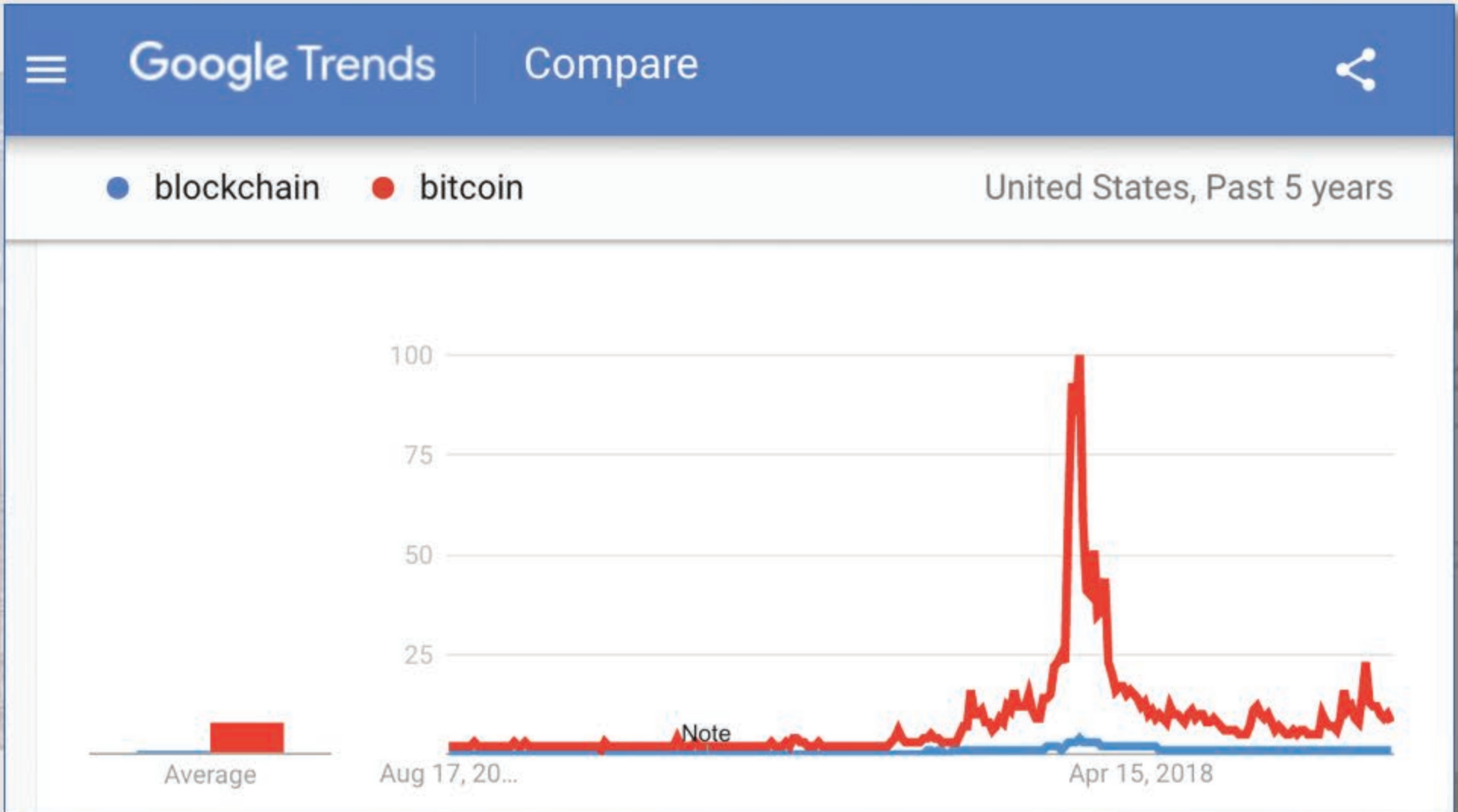
# Blockchain is an old idea, but it needed this new world



“The earliest identified occurrences of the concept of a ‘blockchain’ can be traced back to Haber & Stornetta (1991) and Bayer et al. (1992), who introduced the notion of a chain of cryptographically-linked data blocks to efficiently and securely timestamp digital data in distributed systems using cryptographic hashing functions and Merkle trees...  
...but attracted little attention, in contrast with recent enthusiasm around cryptocurrencies”



# Blockchain is an old idea, but it needed this new world



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**BONDS NEWS**

DECEMBER 5, 2019 / 4:02 AM / UPDATED 7 HOURS AGO

## EU agrees tough line on digital currencies like Facebook's Libra

BRUSSELS, Dec 5 (Reuters) - Private digital currencies such as Facebook's Libra should not be allowed in the European Union until the risks they could pose are clearly addressed, EU finance ministers agreed on Thursday.

**Peter Coffee**  
@petercoffee

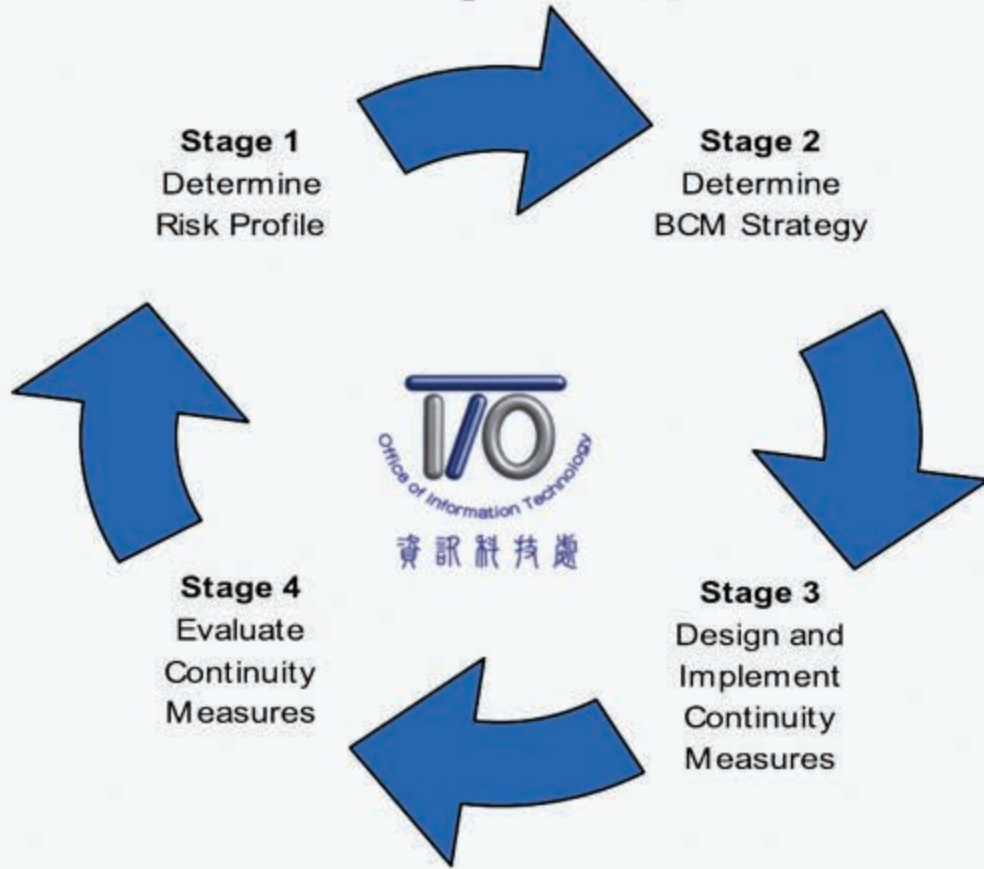
"Swift has launched a service dubbed Global Payments Innovation, which settles payments w/in 30 min. of initiation; Ripple claims its [cryptocurrency] platform is able to perform this task w/in minutes. This highlights magnitude of fintech competition..."



Ripple makes commercial crypto application breakthrough  
Ripple is launching its cryptocurrency-based cross-border payment solution xRapid. The solution will be used by money transfer providers Mercury FX an...  
[businessinsider.com](#)

# Not incident recovery, but process sustainability

It doesn't have an "over"; it *definitely* doesn't have a "return to what was before"



Business Continuity Management Lifecycle  
(Hong Kong Baptist University)



Air Combat OODA Loop  
(Col. John Boyd, USAF)

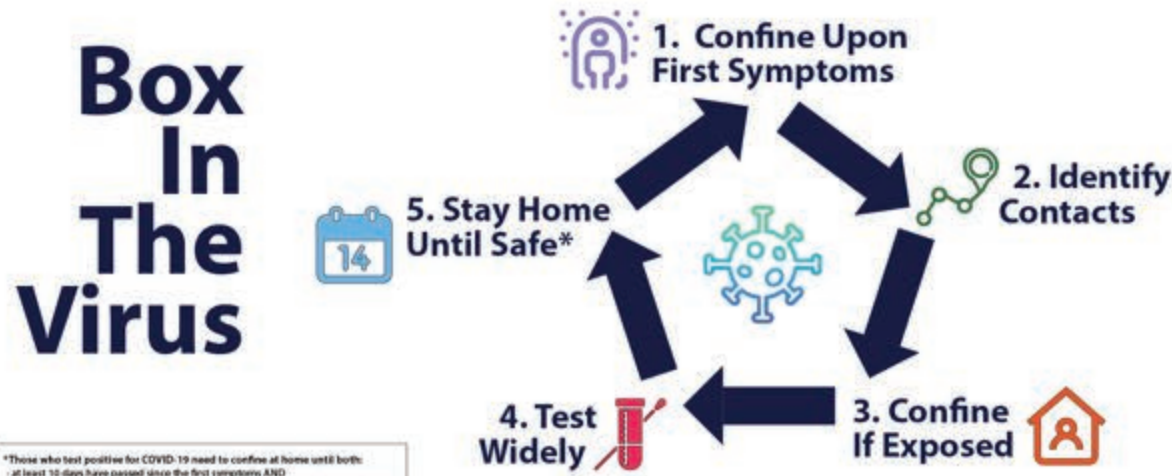


Remember, this is a *cycle*

We can't look to Band-Aids (easily applied but single use); we need a therapy



# Contact Tracing



\*Those who test positive for COVID-19 need to confine at home until both:  
- at least 10 days have passed since the first symptoms AND  
- at least 72 hours have passed without a fever (without fever-reducing medications)  
Close contacts need to confine at home for 14 days after last exposure

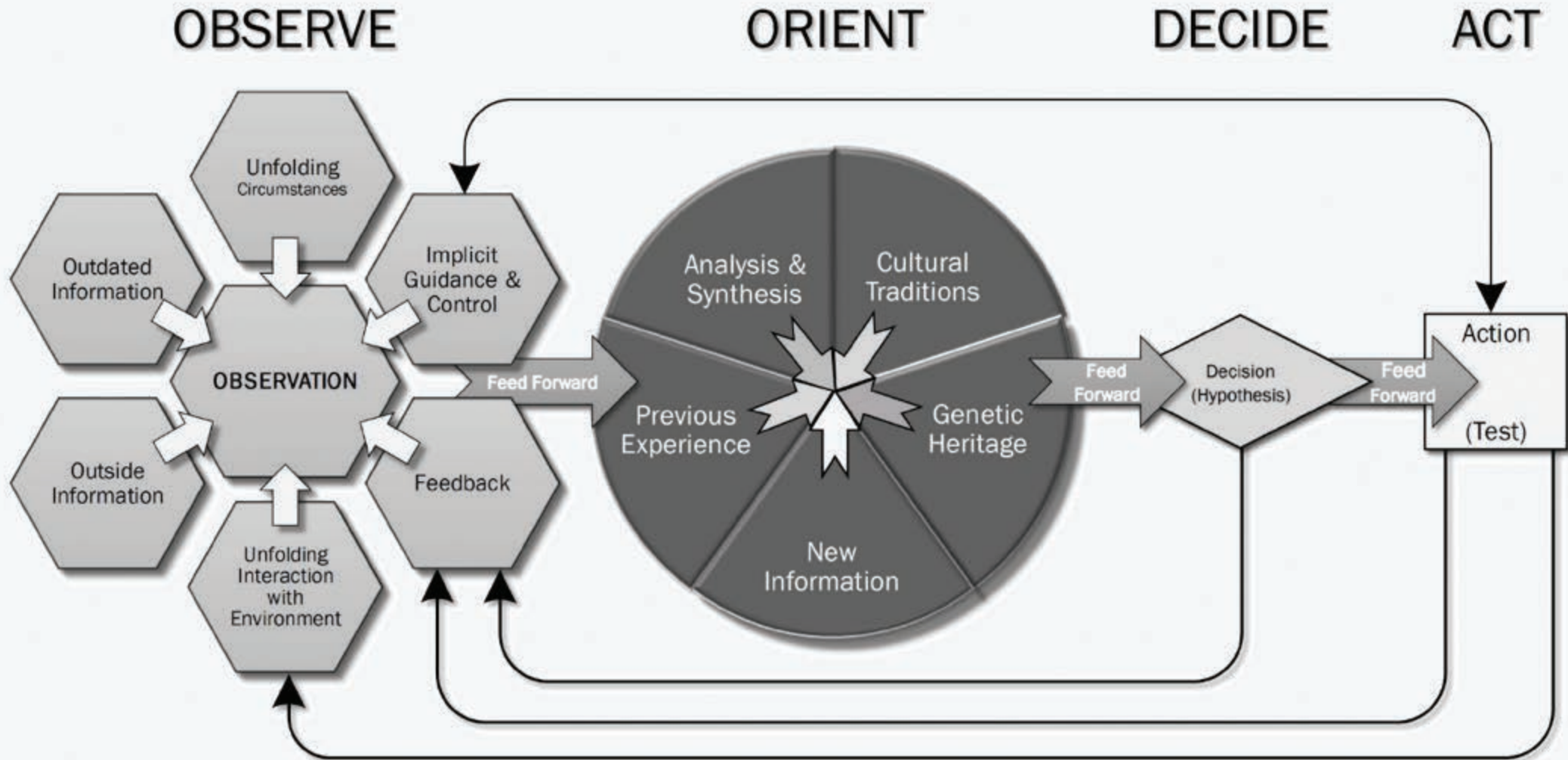
Office of Governor Jay Inslee



# But “it’s a cycle” doesn’t make it simple



Respect “Chesterton’s Fence”: there *will* be  $n^{\text{th}}$ -order effects with  $n > 1$



# Silo-busting was an opportunity. Now it's a mandate.



MCC's purpose is to train you into working as part of a multi-crew team. It teaches you to communicate in an efficient and concise way, and also tells you not to shriek at the other guy if they do something wrong.

[www.profpilot.co.uk/courses/mcc.php](http://www.profpilot.co.uk/courses/mcc.php)



Stanford Business  
@StanfordGSB

Medical workers are trained in silos — they're good at what they do, but they're not always good at talking to each other.

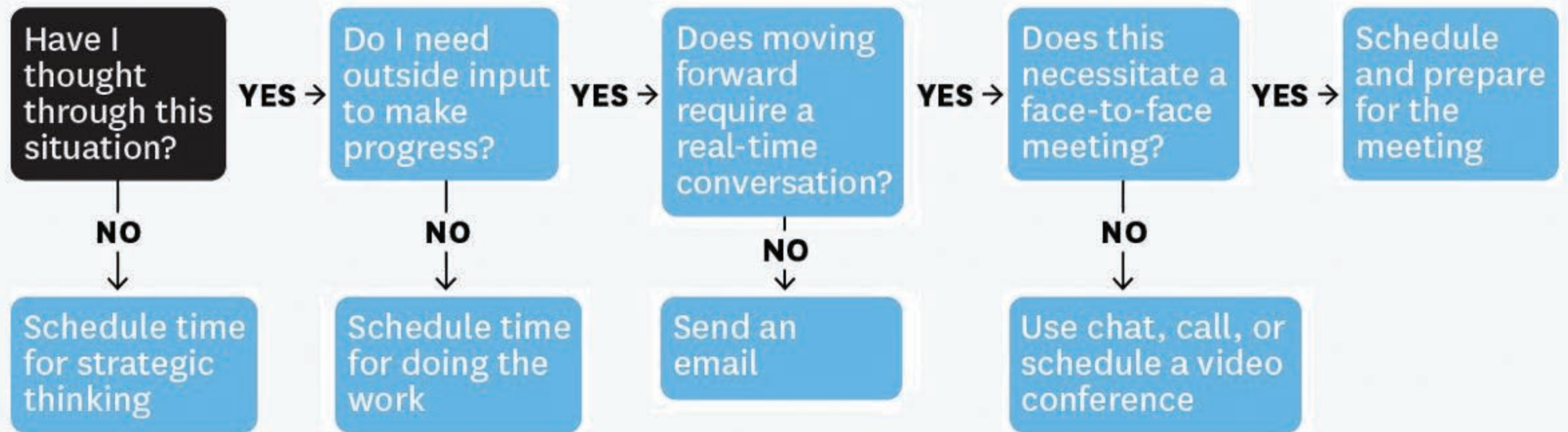
Professor [@SaraJeanSinger](#) studies how high-performing systems work and found the better the communication, the better the care. [stanford.io/2L6pr0S](https://stanford.io/2L6pr0S)



# We have tools that make meetings easy – to a fault?



## SHOULD I HOLD A MEETING?



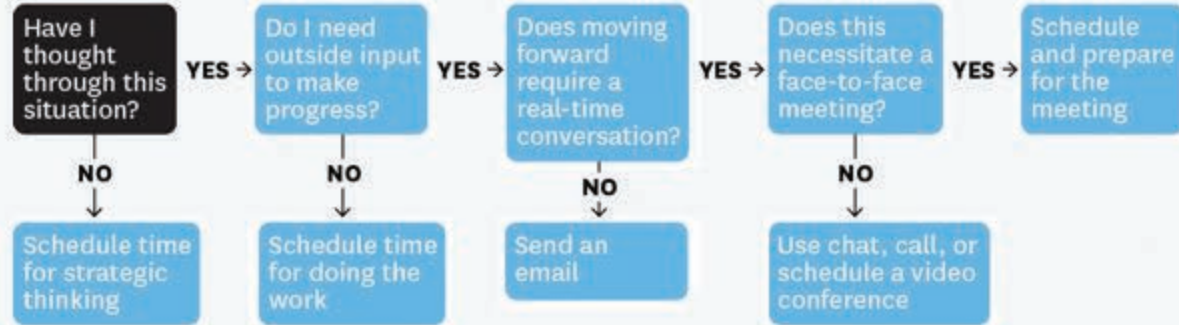
SOURCE REAL LIFE E TIME COACHING & TRAINING

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# We have tools that make meetings easy – to a fault?



## SHOULD I HOLD A MEETING?



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Peter Coffee @petercoffee · Apr 23

Replying to @petercoffee

"Meetings are used as mechanisms to force us to carve out time to think about something that's important... Meetings are most effective when people have done the hard thinking ahead of time."



Covid-19 Is Exposing These 6 Hidden Dysfunctions Of Business Teams

There's nothing like a quarantine to shine light on the bad habits we didn't even know we had...

[forbes.com](https://forbes.com)

1 2



Peter Coffee @petercoffee · Apr 23

"We have meetings and don't document what happened in them. We make decisions and don't record them and the process behind them for people who weren't involved. We make changes to things and just tell people. But what about when we need to find the specifics later?" (Ibid.)

1

# We have tools that make meetings easy – to a fault?



## SHOULD I HOLD A MEETING?



SOURCE REAL LIFE E TIME COACHING & TRAINING

**Robin Daniels** @robin\_daniels · Apr 23  
Who else finds Zoom goodbyes awkward?  
It's always weird when it's time to stop the meeting.  
"Who goes first?"  
"Is it rude if I hang up too soon?"  
"One of us has to end it, right?"

**Peter Coffee** @petercoffee  
Replying to @robin\_daniels  
The best way to end *\*any\** meeting, in-the-room or otherwise, is "That's everything we needed to decide, you'll all get the meeting notes before end of day, looks like we all get ten minutes back by ending early. Thank you all for being so prepared. Wash your hands."

7:49 AM · Apr 24, 2020 · [Twitter for iPhone](#)

**Peter Coffee** @petercoffee · Apr 23  
Replying to @petercoffee  
"Meetings are used as mechanisms to force us to carve out time to think about something that's important... Meetings are most effective when people have done the hard thinking ahead of time."



**Coffee** @petercoffee · Apr 23  
ave meetings and don't document what happened in them. We make ons and don't record them and the process behind them for people aren't involved. We make changes to things and just tell people. But about when we need to find the specifics later?" (Ibid.)

# If it were short-term, we could do it the easy way



Address security/safety/automation/scale – “ad hoc” must not become “bad hoc”\*

Distributed work forces will be with us indefinitely.  
Manage for security as well as for productivity.

**Peter Coffee**  
@petercoffee

Urgency, platform diversity, unfamiliarity: could there ever be a more salubrious environment for new phishing attacks? ("To minimize video issues, please disconnect from VPN" - a valuable bonus...)

Phishing campaign caught spoofing Zoom  
The campaign impersonates Zoom emails, but steals the Microsoft account credentials of its victims, says security firm Abnormal Security.  
[techrepublic.com](https://techrepublic.com)

12:12 PM · May 12, 2020 · [Twitter Web App](#)



“Assistive technologies allow field organizations to drive compliance through all types of service scenarios, weaving records of safety and compliance into workflows” (Deloitte)

\*Andrew Hill, [www.ft.com/content/dedf1fc1-d917-44c9-8b96-87669b1a41e2](http://www.ft.com/content/dedf1fc1-d917-44c9-8b96-87669b1a41e2)



**Peter Coffee**  
@petercoffee

"The U.S. Coast Guard has issued a safety alert encouraging mariners to follow basic cybersecurity protocols after a ship bound for the East Coast experienced a 'significant cyber incident' in February." They're "encouraging"? "Basic protocols"?



After 'significant' malware attack, U.S. Coast Guard issues maritime security advis...  
The U.S. Coast Guard has issued a safety alert encouraging mariners to follow basic cybersecurity protocols after a ship bound for the East Coast experienced a ...  
[cyberscoop.com](#)

10:27 AM - Jul 9, 2019 · Twitter Web Client

View Tweet activity

1 Retweet 2 Likes



**Zarina Varley Scott (Zaz)** @zazamataz · Jul 9  
Replying to @petercoffee

Master password can no longer be the name of the current vessel.



The naïveté about critical systems' use of embedded software—its ubiquity and its vulnerability—is truly breathtaking. Or should I say, “seasickening”?

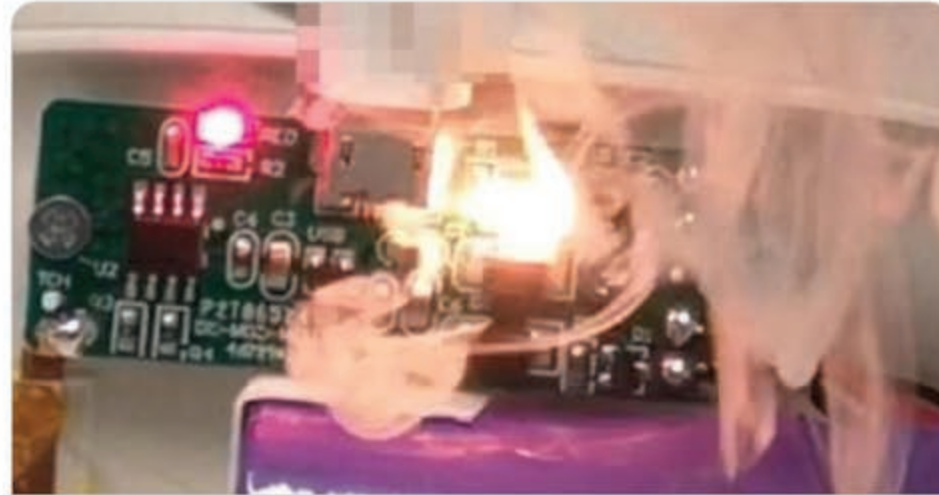




**Peter Coffee**  
@petercoffee



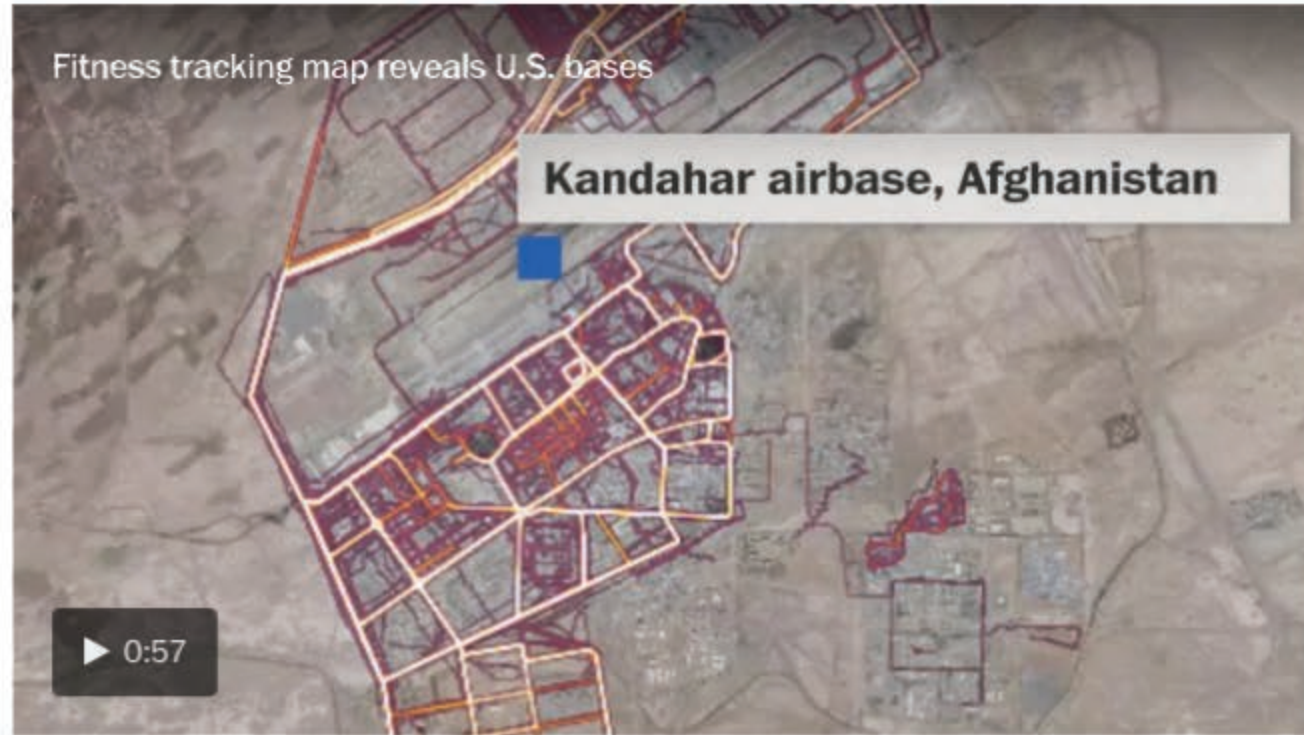
"The BadPower technique works by altering the default charging parameters to deliver more voltage than the receiving device can handle, which degrades and damages the receiver's components, as they heat up, bend, melt, or even burn."



BadPower attack corrupts fast chargers to melt or set your device on fire | ZD...  
Attackers can alter the firmware of fast charger devices to deliver extra voltage and damage connected equipment.  
[zdnet.com](https://www.zdnet.com)

11:21 AM · Jul 20, 2020 · [Twitter Web App](#)

# U.S. soldiers are revealing sensitive and dangerous information by jogging



GPS tracking company Strava published an interactive map in Nov. 2017, showing where people have used fitness tracking devices. (Patrick Markey/The Washington Post)

In war zones and deserts in countries such as Iraq and Syria, the heat map becomes almost entirely dark – except for scattered pinpricks of activity. **Zooming in on those areas brings into focus the locations and outlines of known U.S. military bases, as well as of other unknown and potentially sensitive sites** – presumably because American soldiers and other personnel are using fitness trackers as they move around.

**The U.S.-led coalition against the Islamic State said on Monday it is revising its guidelines on the use of all wireless and technological devices on military facilities as a result of the revelations.**



Peter Coffee  
@petercoffee

"The @DHSgov Cybersecurity and Infrastructure Security Agency (CISA) has issued an emergency directive giving government agencies just 24 hours to update Windows Server or apply other mitigations."



Windows Updates Just Got Serious: You Have 24 Hours To Comply, Homeland Security  
Perfect 10 security vulnerabilities are rare, so are Department of Homeland Security emergency directives regarding Windows updates. But here we are  
[forbes.com](https://forbes.com)

8:20 AM · Jul 17, 2020 · Twitter Web App



Peter Coffee @petercoffee · Jul 19

"There's no technical reason why mfrs. need to ship devices with common default passwords. Shipping w/ unique pwds, or requiring a user to change...on 1st use, are sensible requirements..." – Discuss. Isn't device behavior mgmt better than access control?



Peter Coffee  
@petercoffee

"The error consisted of a single line of configuration code, but that was more than enough. Instead of removing the Atlanta routes from the backbone, a tiny change started leaking all Border Gateway Protocol (BGP) routes into the backbone." BGP \*again\*?



Why the internet went haywire last week | ZDNet

It was just another Friday, until the internet stopped working for tens of millions of people.

[zdnet.com](https://zdnet.com)

11:20 AM · Jul 20, 2020 · Twitter Web App



Passwords Could Be Illegal In 2021, Says U.K. Governm...  
the dangers of easy to crack passwords, but the U. K. actually wants to make them illegal for internet-connecte...

1

4



# Connected product → intelligent, personalized *experience*



 **Peter Coffee** @petercoffee · Sep 11

"The best-selling watch brand in the U.S., and three of the top five, last year were smartwatch brands. NPD ranks the brands by dollar sales as follows: 1) Apple; 2) Rolex; 3) Fitbit; 4) Patek Philippe; 5) Samsung."



 **Peter Coffee** @petercoffee · Oct 4





"A mountain bike rider had a hard fall...knocked unconscious. Apple Watch was able to detect impact. Not only did it alert next of kin about accident & location, it also contacted emergency services...to locate him & have him in **hospital** within the hour."



Top three timepieces that could probably save your...  
Some watches can save your life, and here are the top three candidates that could conceivably do just...  
[timeandtidewatches.com](http://timeandtidewatches.com)

## John Hancock adds fitness tracking to all policies

🕒 20 September 2018 📄 287

    Share



One of the largest life insurance providers in North America will no longer offer policies that do not include digital fitness tracking.

John Hancock will now sell only "interactive" policies that collect health data through wearable devices such as a smartwatch.

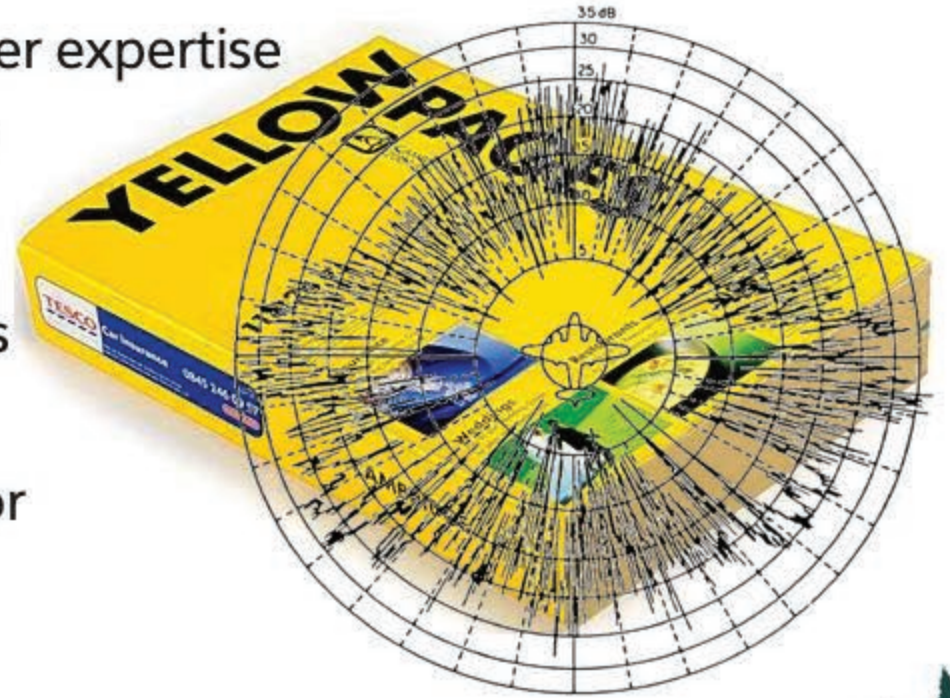
# Connected communities → new models of competition

## Category Competitors:

- Recognized by customers and prospects as rival brands
- Defined by comparable capital assets and subject matter expertise
- Bigger threaten with scale; Smaller threaten with agility

## Connection Competitors:

- Discovered by customers and prospects as viral services
- Defying category definitions with lifestyle positioning
- Empowered by data across multiple spheres of behavior





By **Mark Calvey** – Senior Reporter, San Francisco Business Times  
May 29, 2014, 21:56pm **Updated** Jun 6, 2014, 10:50am

In an ominous sign for traditional banks and their ubiquitous branches, an Accenture survey found that many millennials would prefer to bank with Apple and Google, among others.

Accenture surveyed 4,000 Americans and found 72 percent of 18- to 34-year-olds would be "likely" or "very likely" to bank with companies such Wal-Mart, T-Mobile or the U.S. Postal Service, if they offered banking services.

Millennials are three times more likely to do their banking at one of these non-traditional players than the over-55 crowd.

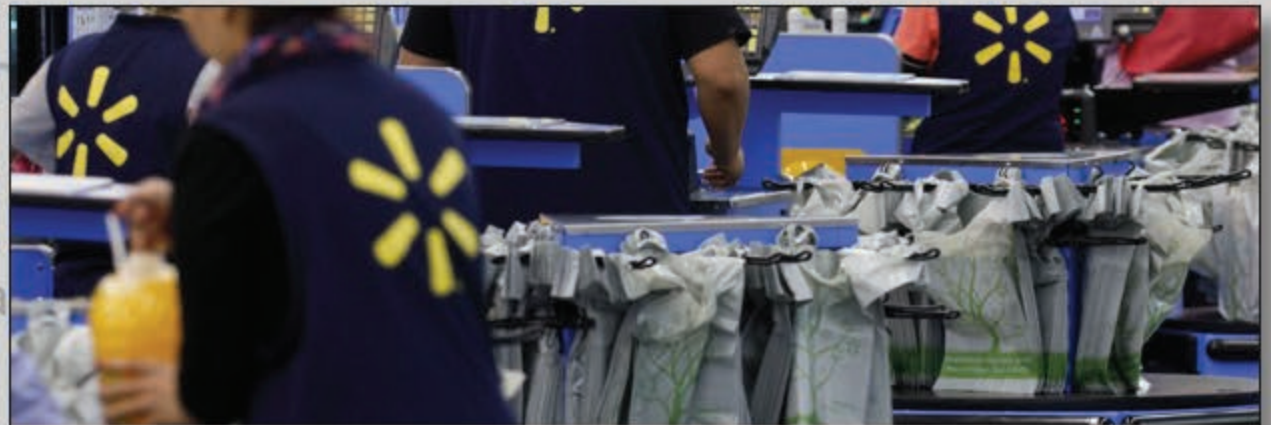
# Apple Card is here.

A new kind of credit card.  
Created by Apple, not a bank.

Apply now



Apple Card completely rethinks everything about the credit card.



Checkout

## Walmart's New Credit Cards Have One Big Goal: Boost E-Commerce

By [Matthew Townsend](#)

September 17, 2019, 10:01 PM MDT

- ▶ Capital One cards offer more rewards with mobile checkout app
- ▶ Cash back for online orders will increase to 5% from 3%

LIVE ON BLOOMBERG

Watch Live TV >

Listen to Live Radio >

The card offers 5% cash back on Walmart online orders and 2% cash back on Walmart purchases in stores... 5% cash back on Walmart purchases in stores for 12 months if they sign up for Walmart Pay, the company's mobile payment option.

Last year, **consumers received \$15 billion in rewards value** through cash back, miles and points, according to our estimates and analysis.

Banks, card companies and retailers are locked in a battle of wills—and significant investments—as they introduce one-up premium rewards cards that extend rewards value.

One company's **marketing and rewards costs as a percent of revenue more than doubled** from 2008 to 2016 from nine percent to 20 percent. Another's jumped from 18 to 29 percent.

This unsustainable friction between rewards and interchange fees means two things. **First, the traditional rewards model is at or close to peak. Second, it is time for a new rewards playbook.**



## DRIVING THE FUTURE OF PAYMENTS

10 MEGA TRENDS

# 48%

**of consumers would switch their primary rewards card to get more value for their purchases, and 42 percent would switch for a large up-front sign-up bonus.<sup>4</sup>**

**Source:** Accenture 2017 North America Consumer Payments Pulse Survey



## Who's Your Competitor Now?

If none of Google, Amazon, Apple, PayPal or Square are on your list, you might need a longer list...

...and you may want to ask,

“What would put us  
on *their* lists?”

• Empowered by data across multiple s



Peter Coffee

@petercoffee

“When GOOG enters yr market, 1yr later they're not just eating yr lunch. They're mkng bkfst in yr kitchen.” @DavidMcIninch

↩ Reply ★ Favorite ⋮ More

RETWEETS

4

FAVORITE

1



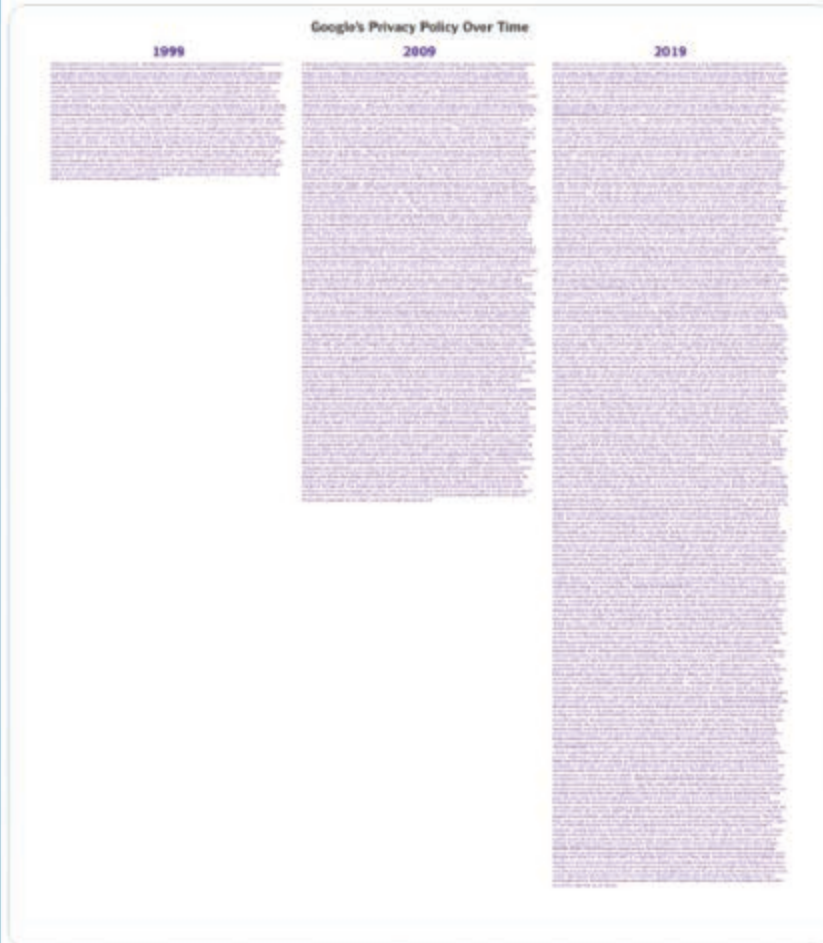
8:51 AM - 8 Apr 2014



Peter Coffee  
@petercoffee

"This evolution, across two decades and 30 versions, is the story of the internet's transformation through the eyes of one of its most crucial entities. The web is now terribly complex, and @Google has a privacy policy to match."

[nytimes.com/interactive/20...](https://nytimes.com/interactive/20...)




In the course of unifying customers' experience, we generate a growing tension between knowing enough to serve, and knowing more than people are truly comfortable with sharing



Peter Coffee

@petercoffee

"We show that location metadata enables inference of sensitive information that could be misused for a wide range of scenarios (eg: from repressive regime de-anonymizing activist's account to insurance company inferring a customer's health issues...)." 

**FYI: Twitter's API still spews enough metadata to reveal exactly wher...**

Old tweets betray sensitive data under new tools

[theregister.co.uk](http://theregister.co.uk)

1:26 PM - 8 Jan 2019

3 Retweets 4 Likes



Peter Coffee @petercoffee · Jan 8

"This privacy violation is invisible to users, as GPS coordinates are only contained in metadata returned by API; not visible through the @Twitter website or app," the paper explains. "This historical metadata currently remains publicly accessible through the API."



Peter Coffee @petercoffee · Jan 8

"The tool, which relies on publicly accessible geolocation databases, will not be open sourced due to the potential for misuse...'Our system is able to identify the home and workplace for 92.5 per cent and 55.6 per cent of the users respectively,' the paper says."

Computing finds information in data.  
Sometimes, there turns out to be more information there than people realized...or intended to disclose.



Peter Coffee @petercoffee · Jan 8

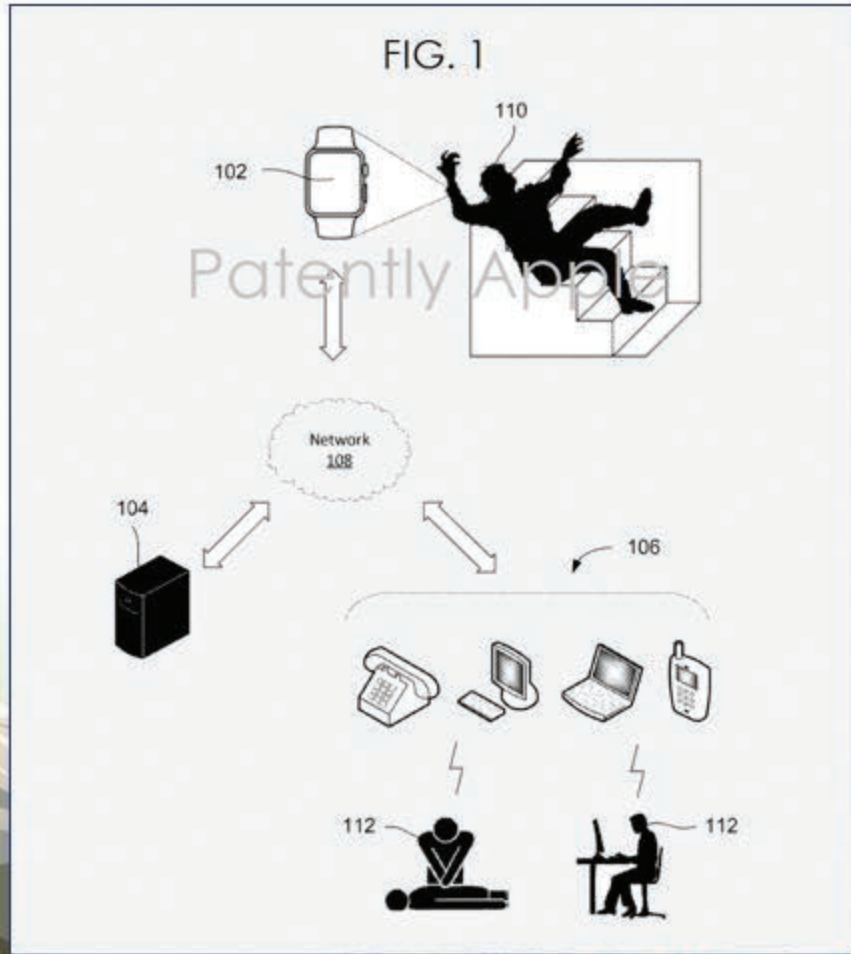
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# Real-world knowledge comes from real-world observation



“Apple says that to build its fall detection algorithms, it used data from a study involving 2,500 participants over several years, and it also worked with assisted living facilities and movement disorder clinics.”


– Dieter Bohn, [theverge.com](https://www.theverge.com), 19 Sept 2018

# Knowing—not “thinking”—turns out to be the difficult part



**Peter Coffee** @petercoffee · Jan 23

"So far, the AI found three maintenance actions on the C-5 'we wouldn't have found through traditional processes, that affect 36 different aircraft'...Maintainers also removed 17 parts that were showing subtle signs of wear before those parts had issues."



**The Secret Weapon for Saving Old Warplanes**  
The Air Force started using artificial intelligence to keep aging airplanes ready for operation. As early results come in, it's time to see if it works.  
popularmechanics.com

1 3 13

**Peter Coffee** @petercoffee

Late in 2018, USAF (w/ help from Delta) retrofitted C5 & B1 fleets for predictive maintenance... 'Data is there but not in discoverable format that can layer machine learning on top...A lot of what we did was reverse engineering, so data can be exposed in algorithm-friendly way.'

8:24 AM - 23 Jan 2019

According to research from Salesforce and Deloitte, **brands operate an average of 39 disparate systems to manage customer relationships**, resulting in a disjointed and frustrated experience for customers.

**Peter Coffee** @petercoffee

"Most co.'s will find that to realize expectations from AI...they must invest in 'an AI-worthy data environment.' 60% of decision makers...cite data quality as (very) challenging—top challenge when trying to deliver AI capabilities."



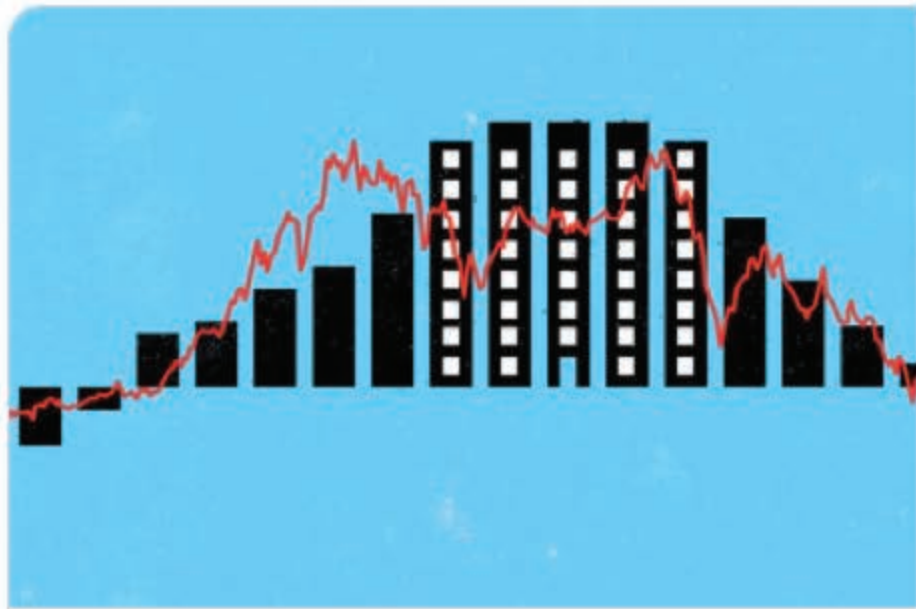
**AI And Automation 2019 Predictions From Forrester**  
In its 2019 predictions, Forrester tries to temper the "irrational exuberance for AI adoption" with a dose of reality  
forbes.com

2:25 PM · Jul 8, 2019 · Twitter Web Client



**Peter Coffee** @petercoffee · Jul 12

"Problems arise when limitations of the model are not clear the same time the model is introduced, or when students are seduced by the simplicity of the tool and forget about what they have been taught." You think?



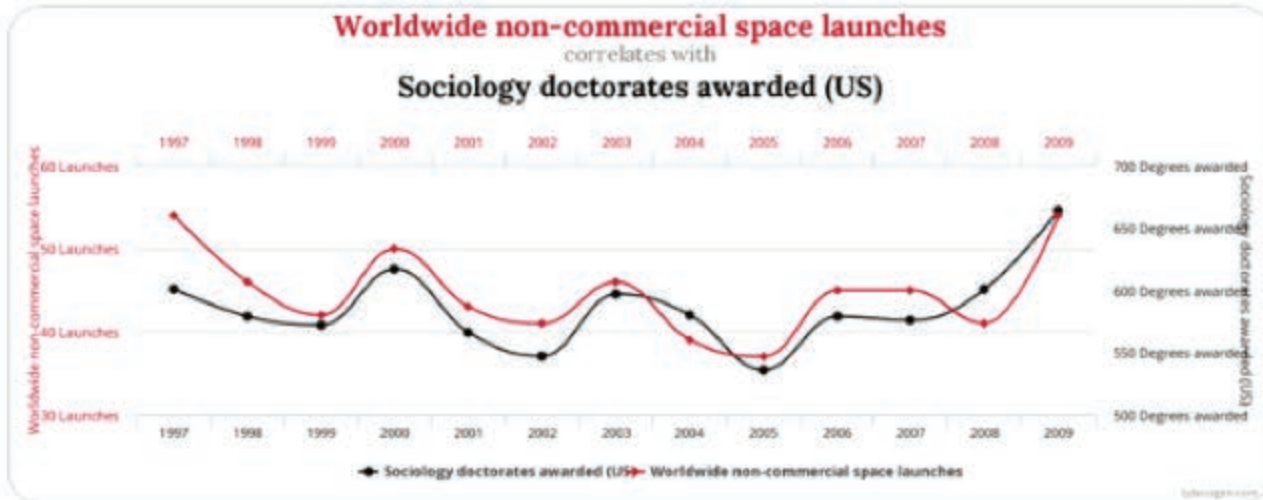
Dealmakers take heed: CAPM can cause significant valuation errors. Finance professionals using the CAPM model to price their targets may want to update their methodology. New research from MIT Sloan School of Management. [mitsloan.mit.edu](https://mitsloan.mit.edu)



**Peter Coffee**  
@petercoffee

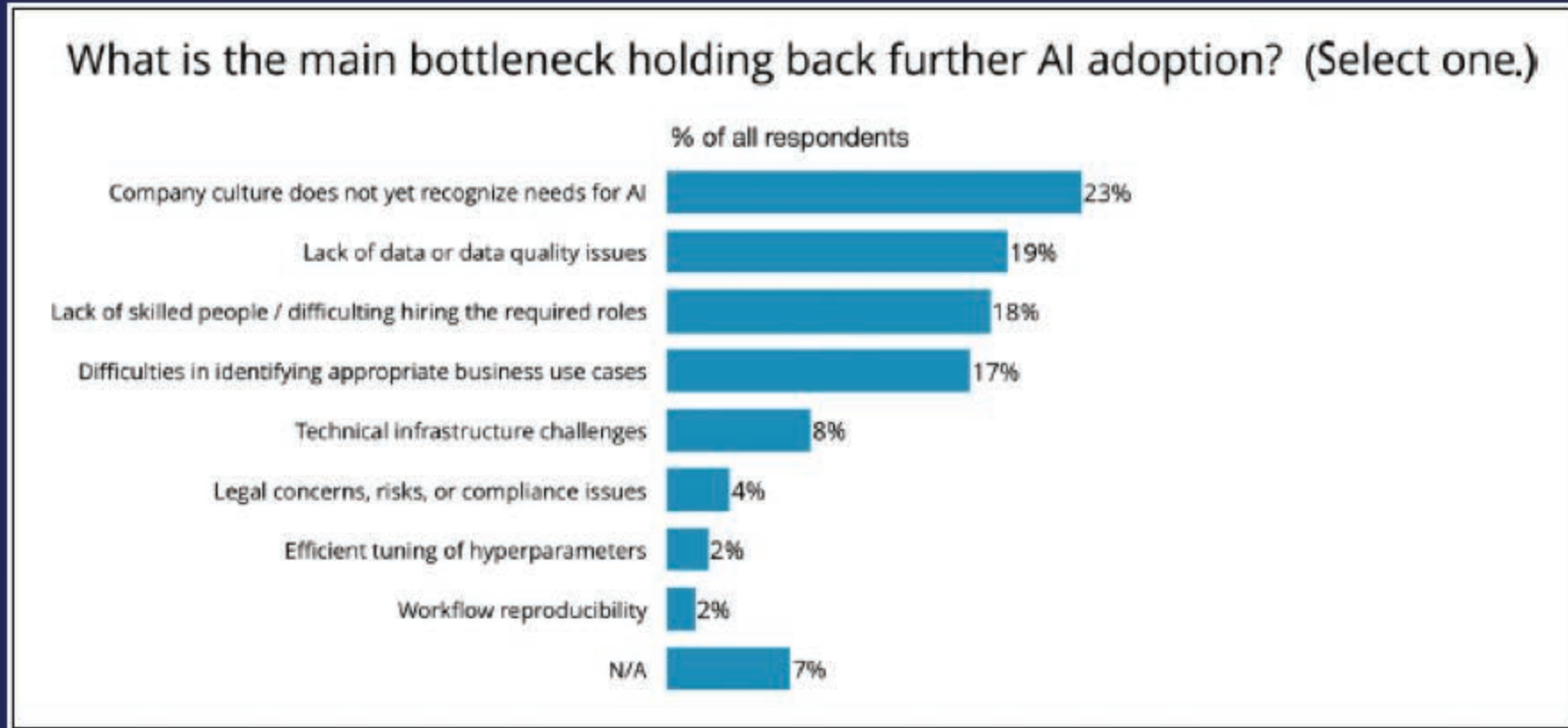
Awash in cheap data, vigorously mixed and fractionated by massive computational power, we will keep being shown "significant" correlations that have no predictive or explanatory power. Not just two things growing or declining, but even coincidental cycles.

[tylervigen.com/spurious-corre...](http://tylervigen.com/spurious-correlations)



10:22 AM · Jul 22, 2020 · [Twitter Web App](#)

# Technology long since stopped being principal cause of delay



“Lack of data” and a “lack of skilled people” remain key factors that slow down AI adoption within many organizations. Two other common obstacles pertain to organizational challenges: 23% cited “company culture” and 17% cited “difficulties identifying use cases.”

– [www.game-changer.net/2019/03/20/5-charts-that-show-challenges-of-ai-adoption-in-the-enterprise](http://www.game-changer.net/2019/03/20/5-charts-that-show-challenges-of-ai-adoption-in-the-enterprise)

# Acceleration is a vector: it has *direction*



Technology initiatives have license to go faster, but be thoughtful about *where*



**Peter Coffee**  
@petercoffee

"AI" \*can\* mean "machine learning finding patterns in past events," perhaps less useful now than before. It can also mean "unconventional optimization, unconstrained by unconscious assumptions based on past experience" — which could be helpful. (I'm not a fan of label "AI" 😊)



**Joe McKendrick** @joemckendrick · Apr 26

"At the current moment, technologies like data reporting, telemedicine, and conventional diagnostic tools are far more impactful." Plus, COVID situation has only been around a few months. It takes time to create new applications  
[twitter.com/marcusborba/st...](https://twitter.com/marcusborba/st...)

10:37 AM · Apr 26, 2020 · [Twitter for iPhone](#)

**"Automated Inflexibility" is the *wrong* kind of AI**



**Peter Coffee**  
@petercoffee

"Ripple effects across retail supply chains have affected algorithms for inventory management, fraud detection, marketing & more. Machine-learning models trained on normal behavior find that normal has changed; some are no longer working as they should."



Our weird behavior during the pandemic is messing with AI models  
In the week of April 12-18, the top 10 search terms on Amazon.com were: toilet paper, face mask, hand sanitizer, paper towels, Lysol spray, Clorox wipes, mask,...  
[technologyreview.com](https://www.technologyreview.com)

1:57 PM · May 13, 2020 · [Twitter for iPhone](#)



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10:37 AM - Apr 26, 2020 - Twitter for iPhone



Peter Coffee  
@petercoffee

"In essence, AI Economist is a data-driven computer simulation that uses reinforcement learning techniques to model millions of interactions between different actors in the economy...given an objective function and then set loose to achieve their goal" @FT



Algorithmic economics might help recovery from Covid-19  
Machine learning applied to economic modelling aims to generate novel insights for policymakers  
[ft.com](https://www.ft.com)

offee  
ffee

...ects across retail supply chains have affected... or inventory management, fraud detection, ... more. Machine-learning models trained on ... vior find that normal has changed; some are ... orking as they should."



...ior during the pandemic is messing with AI models  
...pril 12-18, the top 10 search terms on Amazon.com were: toilet ... k, hand sanitizer, paper towels, Lysol spray, Clorox wipes, mask, ... view.com

2020 - Twitter for iPhone

## *Artificial* Intelligence? Unflattering adjective × vague noun

**Automate** (and *autonomate*) - delegate low-value, high-attention tasks to machines

**Predict** - use machine learning and pattern recognition to **anticipate rather than react**

**Plan** - lay out a sequence of tasks in ways that maximize results at minimum cost

**Recognize** - **minimize false positives & negatives** in diagnosis and troubleshooting

**Optimize** - explore every corner of feasible regions **without preconception bias**

**Protect** - detect and address the **errors and oversights** that put data and processes at risk

**Rationalize** - streamline and simplify processes

**Iterate** - continually **review and refine** operations based on new data and analysis

**Actuate** - focus sensory input through customer-experience lenses: **differentiate & delight**

**Trust** - elevate from black-box mystery to **informative explanation** of results

**Enlighten** - don't replace people; rather, **augment them and empower them**

# APPROPRIATE Intelligence: because *power* resides in verbs

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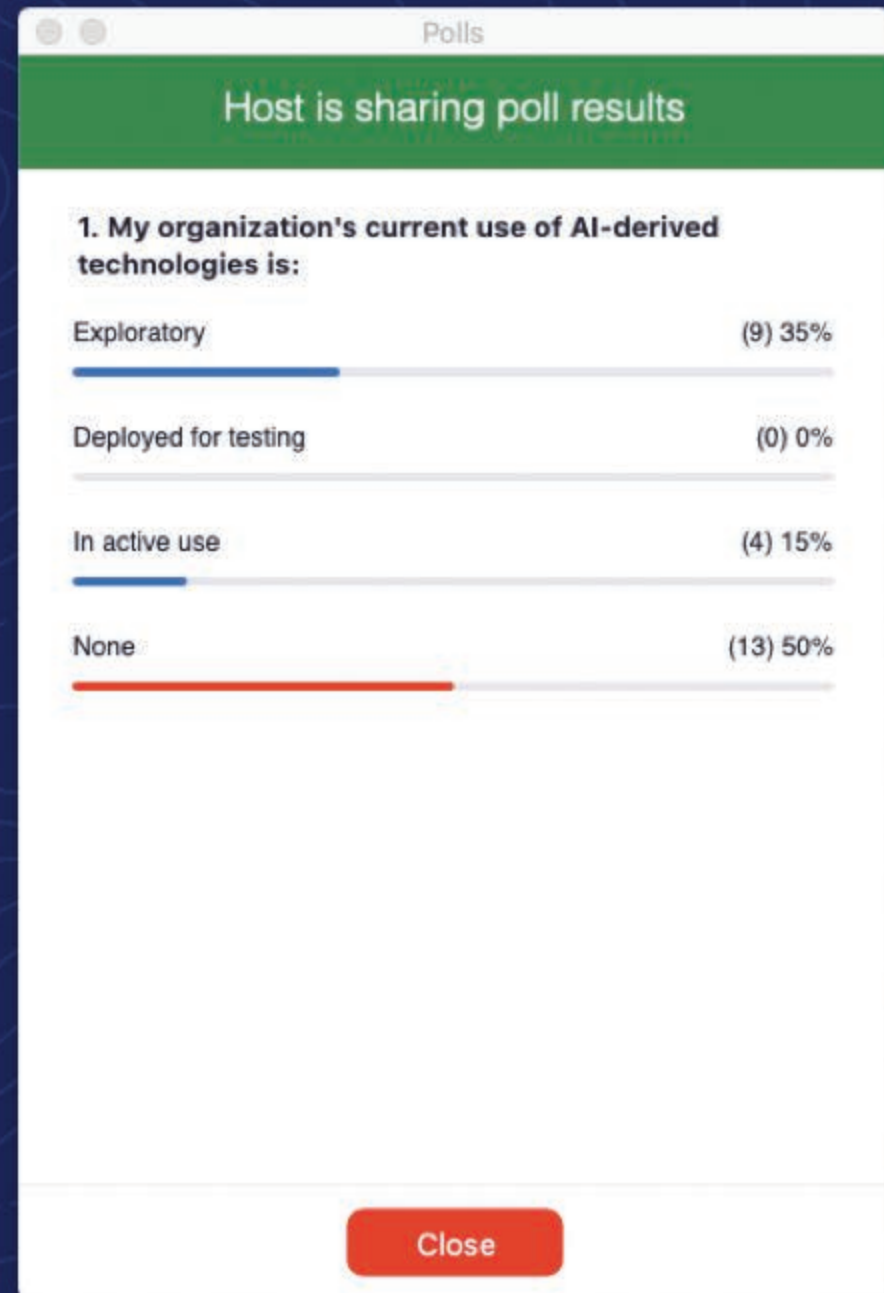
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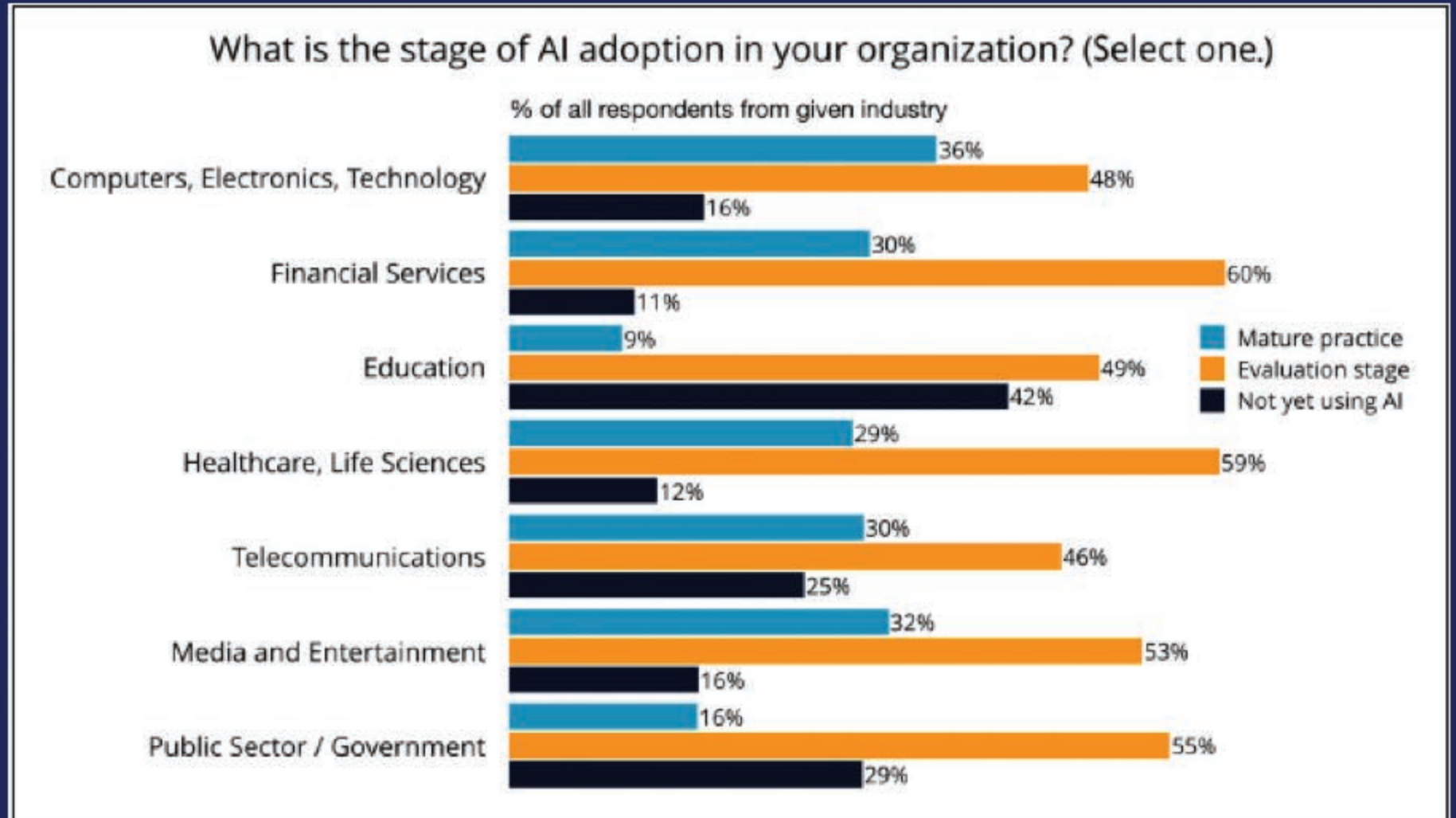
# Poll 2



# Those *not* actively using AI-derived methods are behind

2025?

- 3D Printing and Consumer Products
- AI and White-Collar Jobs





Peter Coffee

@petercoffee



"A 13-year-old...used COVID-19 isolation to take an online IBM class, and within two weeks created and launched Rita, a fully functional chatbot... Launched in the first week of April, Rita is already being used by students, teachers and administrators."



Eighth grader builds IBM Watson-powered AI chatbot for students making coll...

A bored 13-year-old from New Jersey used COVID-19 isolation to take an online IBM class, and within two weeks created and launched Rita, a fully functional ...

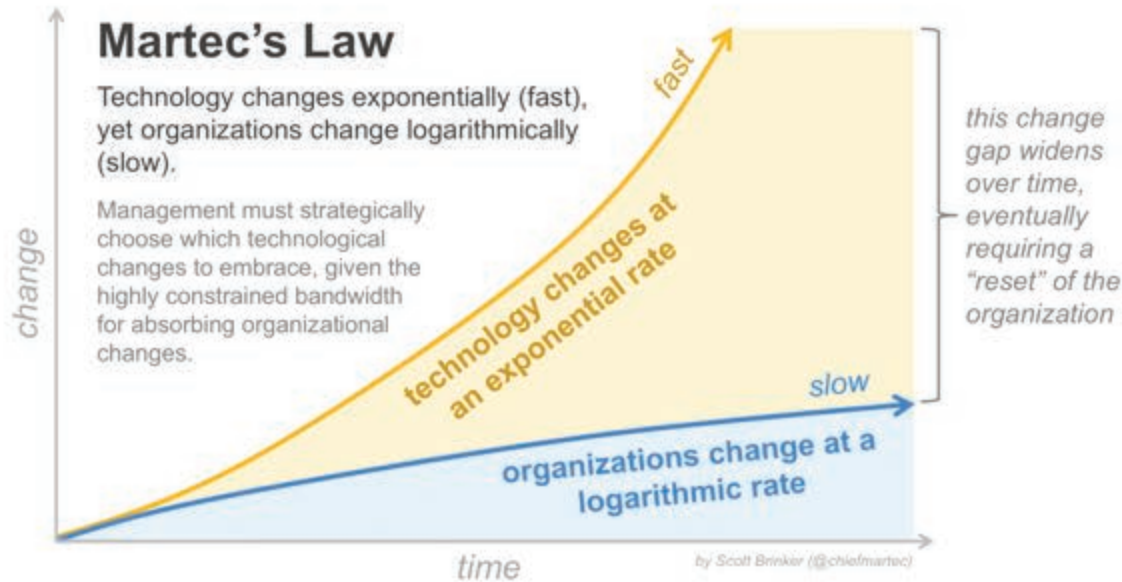
[techrepublic.com](https://techrepublic.com)

4:47 PM · Jul 20, 2020 · [Twitter Web App](#)



Peter Coffee  
@petercoffee

"Are you going to wait until six other firms use the new technology? If you do, you will be at a competitive disadvantage, because reaction time is critical... The goal should be [to stay] eighteen months to two years ahead of your competition."



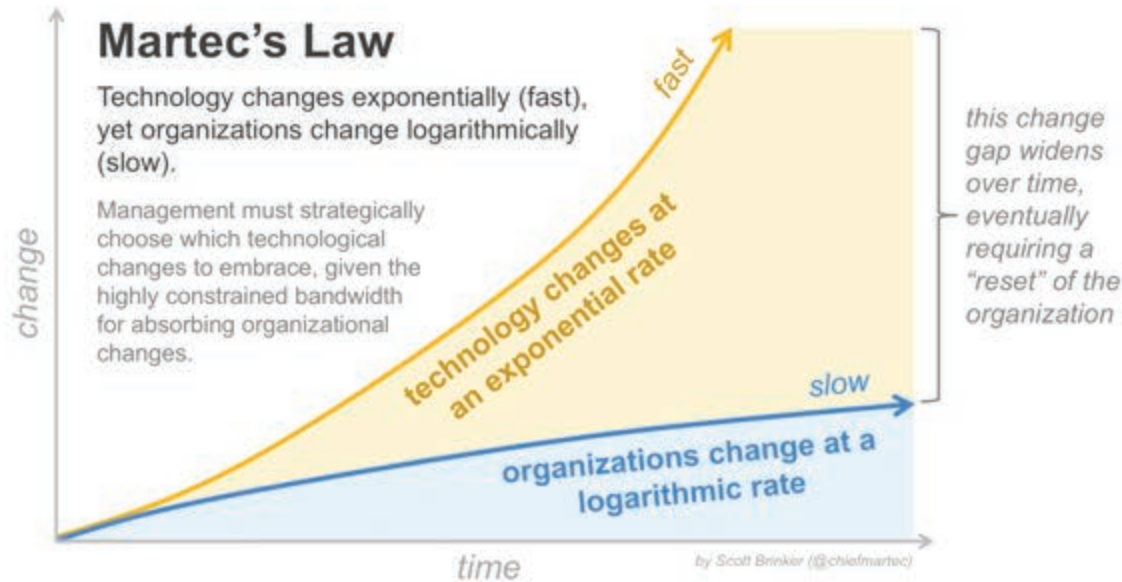
# REQUEST FOR PROPOSAL

*We intend to build something truly disruptive and ground-breaking in our industry.*



Peter Coffee  
@petercoffee

"Are you going to wait until six other firms use the new technology? If you do, you will be at a competitive disadvantage, because reaction time is critical... The goal should be [to stay] eighteen months to two years ahead of your competition."



## REQUEST FOR PROPOSAL

*We intend to build something truly disruptive and ground-breaking in our industry. Please provide three examples of another customer already using any proposed solution.*

## Don't be that RFP

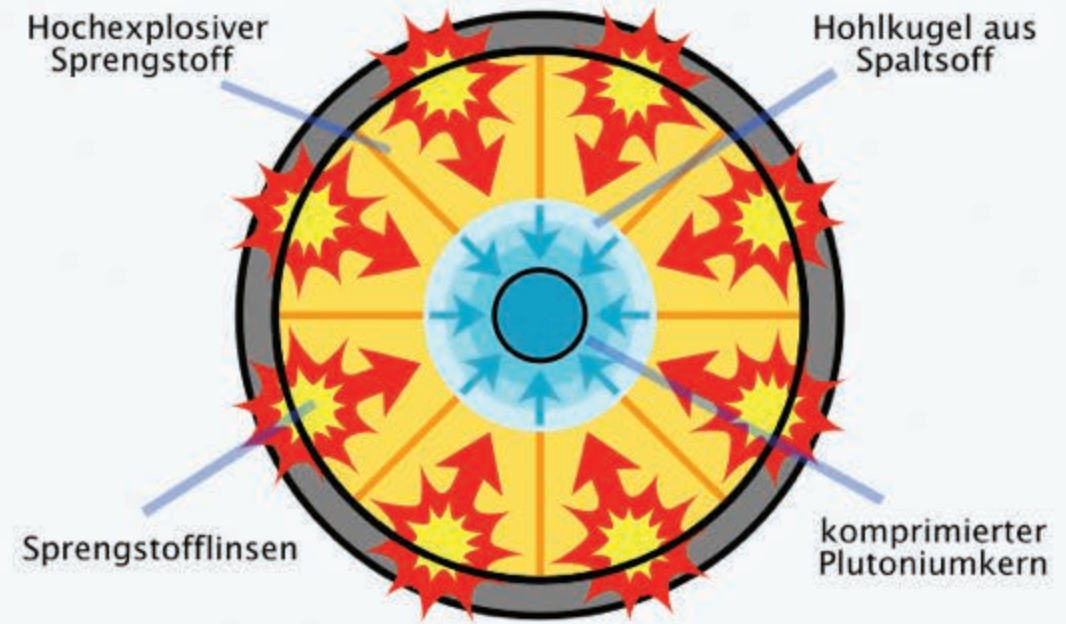


# The future has already happened

When a powerful change takes place, it takes time before you see anything happen...but **the energy has already been released**

At least three energies already at loose:

- **Connectivity**  
Capacity is in place  
Habits have had a decade to build expectations
- **Mobility**  
Devices drive new demands on every institution  
Micro-moments redefine “convenience”
- **Social media**  
Dominating on- & off-job interactions  
Shifting balance of power to customer communities



**Implosionsmethode**



Peter Coffee

@petercoffee

The meta-news is that *whether* "quantum supremacy" will happen is no longer the question. Who gets to claim they did it *first* is now the subject of dueling messages and condescending compliments @Google and @IBM.



Google: We've made 'quantum supremacy' breakthrough with 54-qubit Syca...  
Google reckons it has found the way forward to developing a fault-tolerant quantum computer.  
[zdnet.com](https://www.zdnet.com)

For example, quantum computing. It's no longer a question of whether it can be done, only of who gets to own the status of the Wright Brothers' "first flight." It's now a matter of engineering, not mere speculation.

# Question: were people starting *three years ago* to be ready?



## 13.2. RSA (2)

- Public Key Parameters:
  - Large composite number  $n$  with two prime factors
  - Encryption exponent  $e$  coprime to  $\phi(n) = (p-1)(q-1)$
- Private Key:
  - Factors of  $n$ :  $p, q$  ( $n = pq$ )
  - Decryption exponent  $d$  such that  $ed \equiv 1 \pmod{\phi(n)}$
- Encryption: Alice sends  $c = m^e \pmod n$
- Decryption: Bob computes  $m = c^d \pmod n$ 
  - Euler's Theorem:  $a^{\phi(n)} \equiv 1 \pmod n$
  - Check:  $m^{ed} \equiv m \cdot m^{\phi(n)} \equiv m \pmod n$

- Drewz Lin, Cisco

“You won’t be building a quantum computer and putting it on your desktop anytime soon – but now it’s much more an engineering effort, and not a basic physics question.”

- Isaac Chuang, MIT

# Question: were people starting *three years ago* to be ready?



REPORT

## Realization of a scalable Shor algorithm

Thomas Monz<sup>1,\*</sup>, Daniel Nigg<sup>1</sup>, Esteban A. Martinez<sup>1</sup>, Matthias F. Brandl<sup>1</sup>, Philipp Schindler<sup>1</sup>, Richard Rines<sup>2</sup>, Shannon X. Wang<sup>2</sup>, Isaac L. Chuang<sup>2</sup>, Rainer Blatt<sup>1,3</sup>

+ Author Affiliations

\*Corresponding author. E-mail: thomas.monz@uibk.ac.at

Science 04 Mar 2016:  
Vol. 351, Issue 6277, pp. 1068-1070  
DOI: 10.1126/science.1249480



### Abstract

Certain algorithms for quantum computers are able to outperform their classical counterparts. In 1994, Peter Shor came up with a quantum algorithm that calculates the prime factors of a large number vastly more efficiently than a classical computer. For general scalability of such algorithms, hardware, quantum error correction, and the algorithmic realization itself need to be extensible. Here we present the realization of a scalable Shor algorithm, as proposed by Kitaev. We factor the number 15 by effectively employing and controlling seven qubits and four “cache qubits” and by implementing generalized arithmetic operations, known as modular multipliers. This algorithm has been realized scalably within an ion-trap quantum computer and returns the correct factors with a confidence level exceeding 99%.

“You won’t be building a quantum computer and putting it on your desktop anytime soon – but now it’s much more an engineering effort, and not a basic physics question.”

- Isaac Chuang, MIT

“Best promise:

- Hash-Based Signatures
- Minimizing & optimizing public key use
- Revocation using HBS or symmetric cryptography”

- David McGrew, Cisco

# We can see what was not visible before...



**Peter Coffee**  
@petercoffee



"The team used photonic cavities: essentially nanoscopic crystals in which scientists could observe electrons & photons freely flowing & interacting. 'This is the first time we can actually see the dynamics of light while it is trapped in nanomaterials.'"




**New Microscope Is So Powerful It Can Watch Light Move**  
For the first time, scientists managed to directly observe the flow of light as it traveled through a nanoscopic crystal.  
[futurism.com](https://futurism.com)


8:56 AM · Jun 6, 2020 · [Twitter for iPhone](#)

# We can see what was not visible before; we may not like it



 **Peter Coffee**  
@petercoffee

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[futurism.com](http://futurism.com)

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 **Peter Coffee**  
@petercoffee

"Chip miniaturization, they say, looks like it will end at ~~5nm fabrication, @MIT professors & research scientists~~ argue that tech needs s/w performance engineering, better algorithmic approaches to problem solving, and streamlined hardware interaction."



Moore's Law is deader than corduroy bell bottoms. But with a bit of smart cod...  
Don't aim for the bottom, go top down  
[theregister.com](http://theregister.com)

2:20 PM · Jun 6, 2020 · [Twitter Web App](#)

## In Boeing's words

These times will be remembered as a golden era for attacking and solving industrial challenges on a **global scale**.

Looking further into the future, we will have figured out how to marshal the efforts of **larger teams** of people to solve **bigger problems**.

Engineers will have moved us from the static production system capability of today to **tomorrow's complex adaptive systems** that are **resilient to changing conditions**.

salesforce



MIKE VANDER WEL  
Chief engineer for commercial  
production engineering in  
Boeing Commercial Airplanes



**Innovation**  
Quarterly

February 2019



# Your innovation advantage: what makes you special?

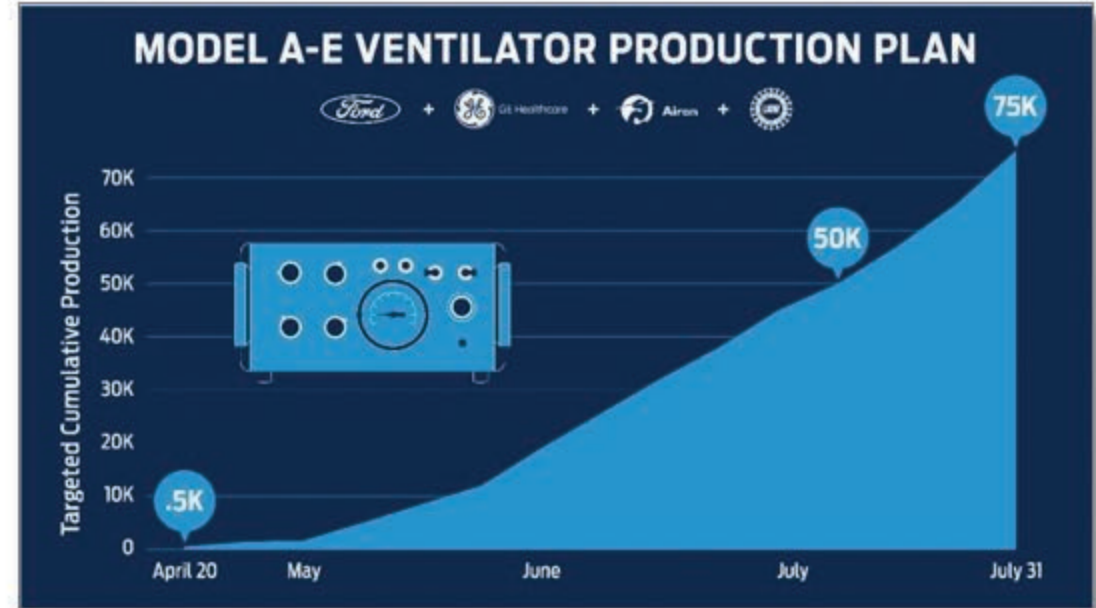


Your company is only incidentally what it *makes* or *does*. It's more about what it *is*.

Bill Ford on *60 Minutes*, 26 April 2020:

There are companies that can **make complicated things**, but they make them **in small numbers**. There are also companies that can make lots of things, but they can't make complicated things.

When we look at this crisis—as a country—we said, you know, “Which industry is positioned to help us not only in terms of sophisticated machinery, but can do a lotta them and a lotta them quickly?” The auto industry is uniquely positioned to do that.







**Peter Coffee**  
@petercoffee

Afghan all-girls robotics team designs low-cost ventilator to treat coronavirus patients



Afghan all-girls robotics team designs low-cost ventilator to treat coronavirus ...  
In the eastern Afghan city of Herat, 18-year-old high school student Somaya Faruqi adjusts a suction cap as she puts the finishing touches before unveiling...  
[reuters.com](https://www.reuters.com)

5:51 PM · Jul 20, 2020 · [Twitter for iPhone](#)

View Tweet activity

**3** Retweets **7** Likes



**Peter Coffee** @petercoffee · Jul 20  
Replying to @petercoffee

"The device is easy to carry, can run on battery power for 10 hours, and costs roughly \$700 to produce, compared with the \$20,000 price of a traditional ventilator... Officials welcome it in a country with only 800 ventilators." (Ibid.)



1

2



# A different context for creation and delivery of solutions



## Measured Results: Far Superior to Process Migration



2009 IDC Research Report  
Savings with Force.com

Staffing	76%-85%
Development Time	76%
Time to Make Changes	75%
Total Cost	54%

“Companies were able to reduce their three year TCO by 54%, saving \$560,000 per application.”



bankinter.

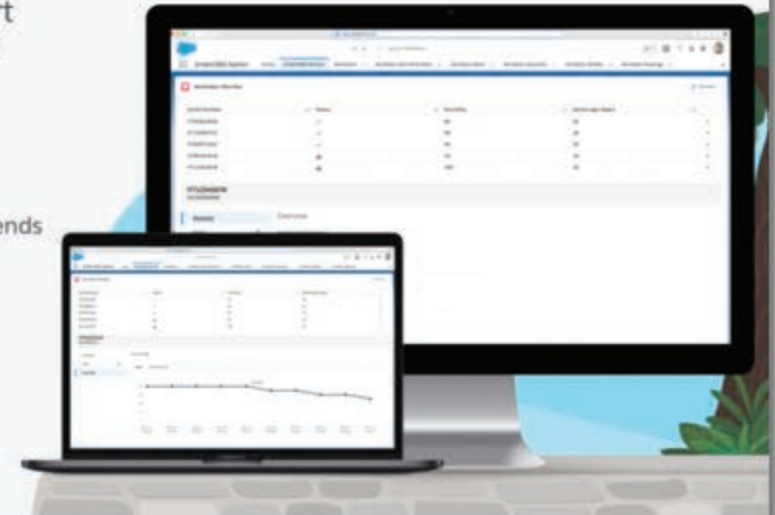


## Introducing InVent360 - Ventilator Monitoring



Ventilator monitoring & alert management on Salesforce

- Monitor real-time ventilator data
- Allocate devices when free
- Set and send alerts based on data trends and thresholds
- 100% natively built on Salesforce



In 2020, a cloud platform enables development and global availability of a medical device management system – in four days

In 2010, cloud agility was novel and controversial

# Ready to share

**WORK.COM** | All | Search Salesforce

Shift Management | Shift Schedules | Shift Management Setup | Facility Hierarchy | Facility Plans | Availability Requests | Service Territories | Service Resources | Shifts | More

Policy: Back to Work | GANTT | MAP | Search resources | Mon, June 1, 2020

**WORK.COM** | All | Search Salesforce

Command Center | Command Center | Employees | Locations | Tasks | Surveys | Badges | Shift Schedules

### Location Workplace Status

23 locations

Legend: Open, Hard Close, Soft Close, Reduced Capacity, Reduced Density

### Employee Wellness Status

2,179 Employees

51%	Available To Work
29%	Remote Work O...
9%	Unavailable
9%	Unknown

### Open Tasks

6 tasks - Updated 6/1/2020, 09:56 AM

- Send Wellness Survey to Employees** - WEST TOWER - Not Started - Take Action
- Change HVAC Filters** - SEATTLE OFFICE - In Progress - View Task
- Perform Off-Schedule Disinfection** - HEADQUARTERS - FLOOR 3 - Not Started - View Task
- Distribute Social Distancing Guides** - WEST TOWER - Not Started - Take Action
- Organize Temperature Screening** - PARIS OFFICE - In Progress - View Task
- Reopen Location** - SYDNEY OFFICE - In Progress - Take Action

### Shift Status

Utilization of Activated Capacity - Today

68% Utilization of Activation Capacity

Activated Capacity	1.091M/1.4M
Employees Available	100k/200k
Shifts Assigned	62K/500k

### Wellness Status by Location

Employee Wellness Status: Available To Work

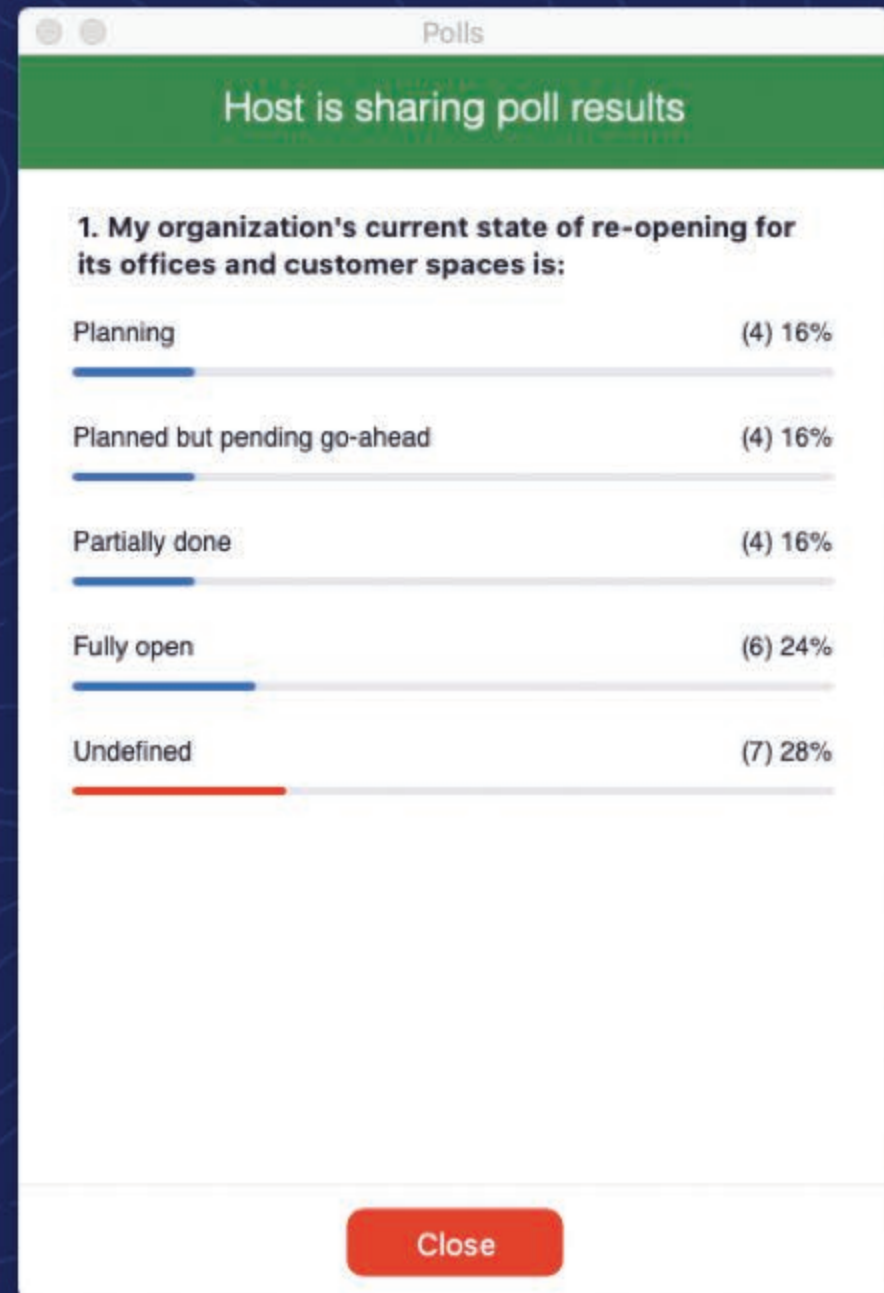
Percentage	Count	Location
60.7%	37/61	Brussels
58.2%	46/79	Hong Kong
57.7%	41/71	Madrid
57.5%	115/200	Denver
56.3%	184/327	San Francisco
55.3%	63/114	London
53.7%	29/54	Toronto

MON, JUNE 1, 2020

America/Los\_Angeles - Mon, Jun 1, 2020 2:01 AM

America/Los\_Angeles - Mon, Jun 1, 2020 2:01 AM

# Poll 3



# Re-opening is a journey; Work.com is your GPS



## Reopen Your Communities & Businesses Safely

Expert advice and trusted data from our Tableau COVID-19 Data Hub to guide fast decision-making

## Return to Your Workplace

Apps to assess employee and workplace readiness, guide reentry and staffing, including a command center & manual contact tracing

## Reimagine Your Organization

Advisory services, best practices, and grants & volunteer management apps to help you reimagine your business for the new world

## Reskill Your Employees

Deliver learning & wellness content with pre-built content kits to help you create a growth culture with myTrailhead

## Respond to Any Future Crisis

Allocate health, public, or private sector services & enable manual contact tracing & Emergency Response Management

Built on the #1 CRM Platform

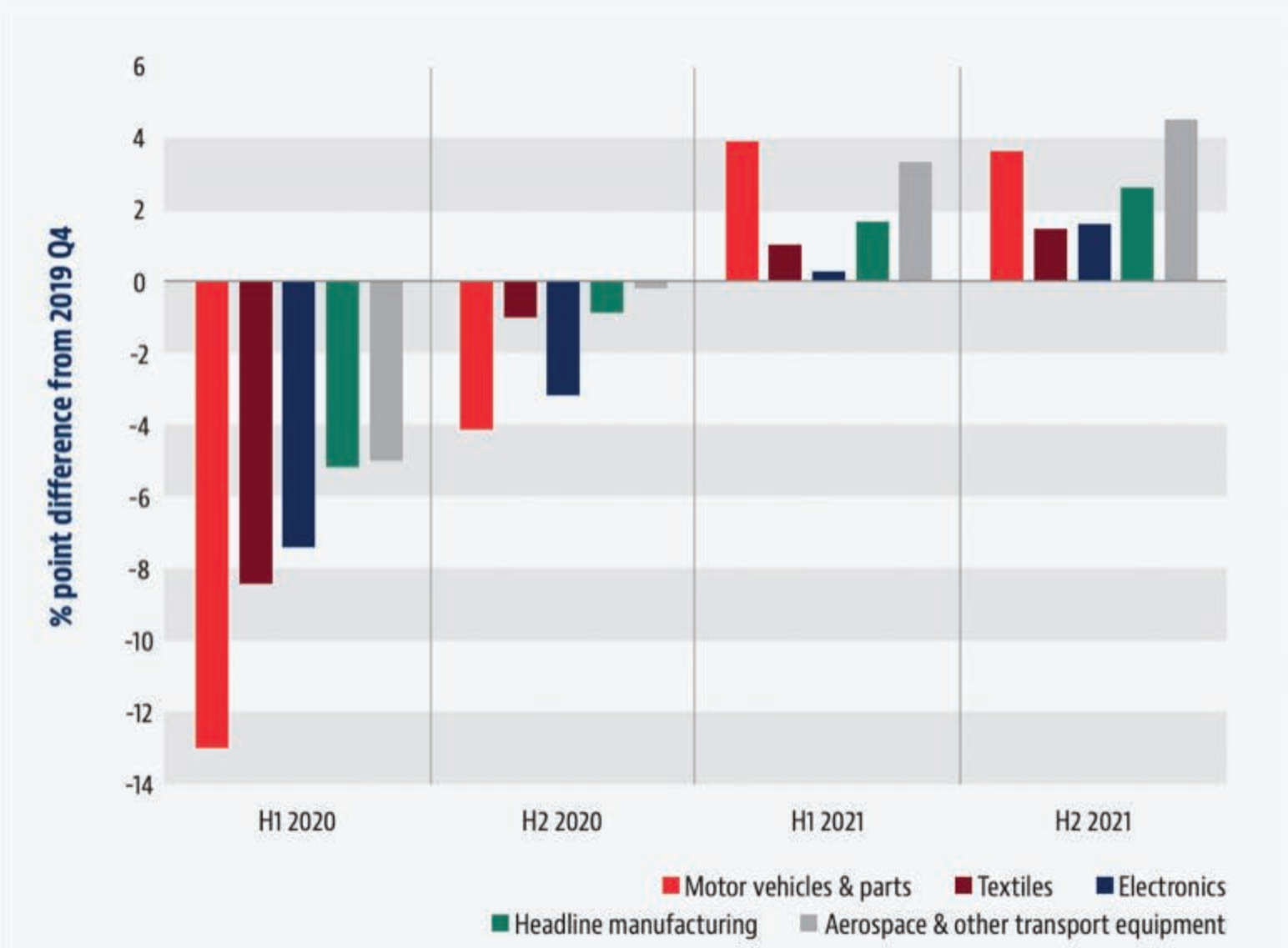


# It's not too soon to talk about plans for growth



“Global manufacturing value-added output will rebound in 2021 with a 6% value-add in manufacturing output compared to 2019.”

Baker McKenzie  
& Oxford Economics



# Neither restoration, nor simple reversal, of “before”



“The dial will shift away from ‘just-in-time’ toward ‘just in case’ as suppliers seek to diversify their supplier base”

– Beata Javorcik, Chief Economist, European Bank for Reconstruction and Development

“Together with [partners] and [customers], we are working intensively on clarifying & discussing requirements & options... We will be taking a decision on possible follow-up formats by summer and will then provide information on new concept...”

– spoken with regard to luxury watches, but could have been any industry



**Peter Coffee**  
@petercoffee

"It is inevitable that supply-chain resilience, not just cost and efficiency, will weigh more heavily in future... However, trying to force through a massive repatriation of manufacturing from China to the west is a bad idea..."

@FT



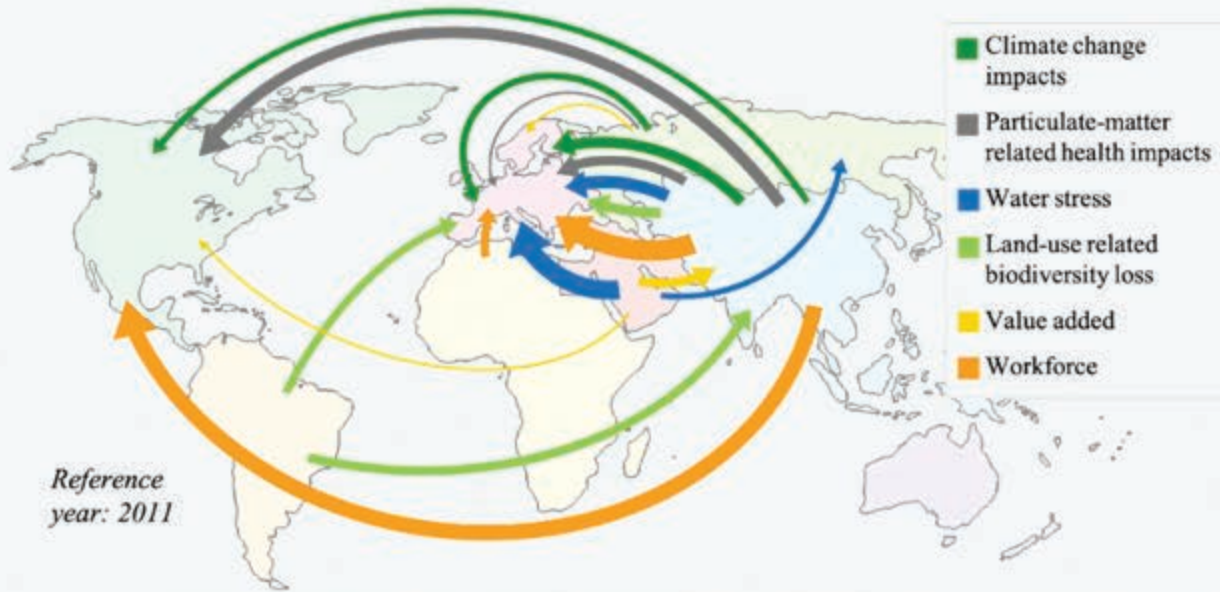
Business News: Baselworld Cancels 2021 Show - HODINKEE  
"Rolexit" sinks the next show, but Baselworld vows to explore new formats.  
[hodinkee.com](https://www.hodinkee.com)

# It's too limiting to talk about being "pandemic-ready"



## This is just a rehearsal

Largest material-related impacts and benefits embodied in international net trade



[www.sciencedirect.com/science/article/pii/S0048969719319850](http://www.sciencedirect.com/science/article/pii/S0048969719319850)

- \* major influenza pandemic killing more than two million people
- globally catastrophic volcanic eruption
- major solar flare
- global war



Peter Coffee  
@petercoffee

It's the combinations that get you: "Analysts say there is at least a 1/3 chance that ~~there~~ **\***  $\geq 1$  of four major tail risks will occur w/in the next decade; if two decades, then there is a 56% chance, the analysts say."



There's a one-in-three chance of a 'massive' disaster that could be worse than... Deutsche Bank says there is at least a one-in-three chance that at least one of four major tail risks will occur within the next decade.

[marketwatch.com](http://marketwatch.com)

3:32 PM · Jun 17, 2020 · [Twitter Web App](#)

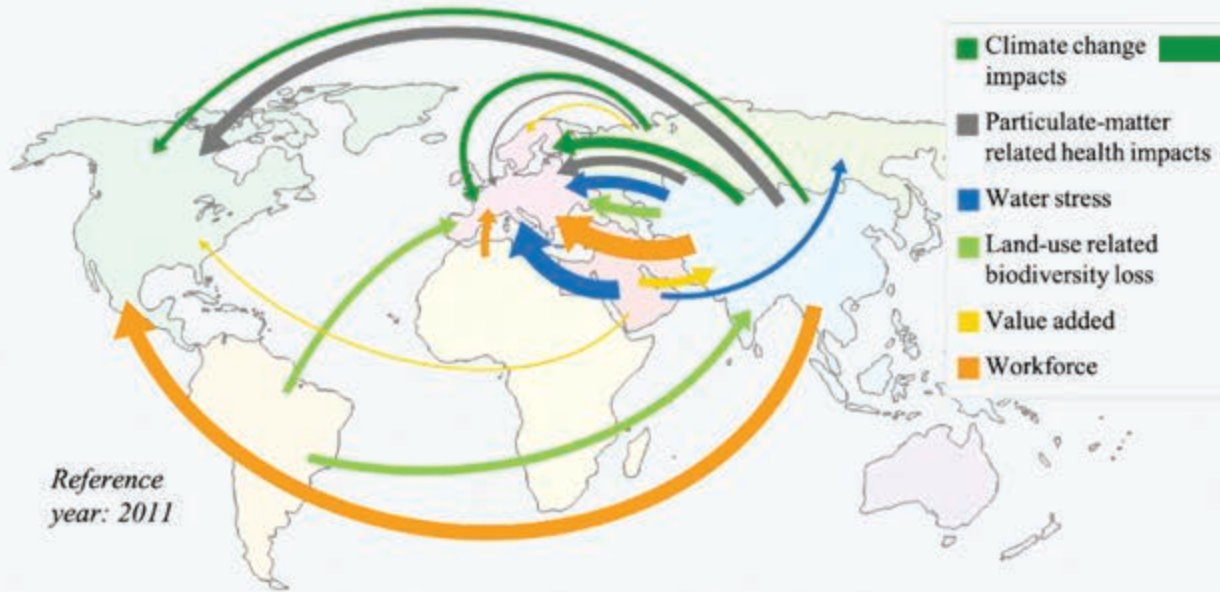


It's too limiting to talk about being "pandemic-ready"

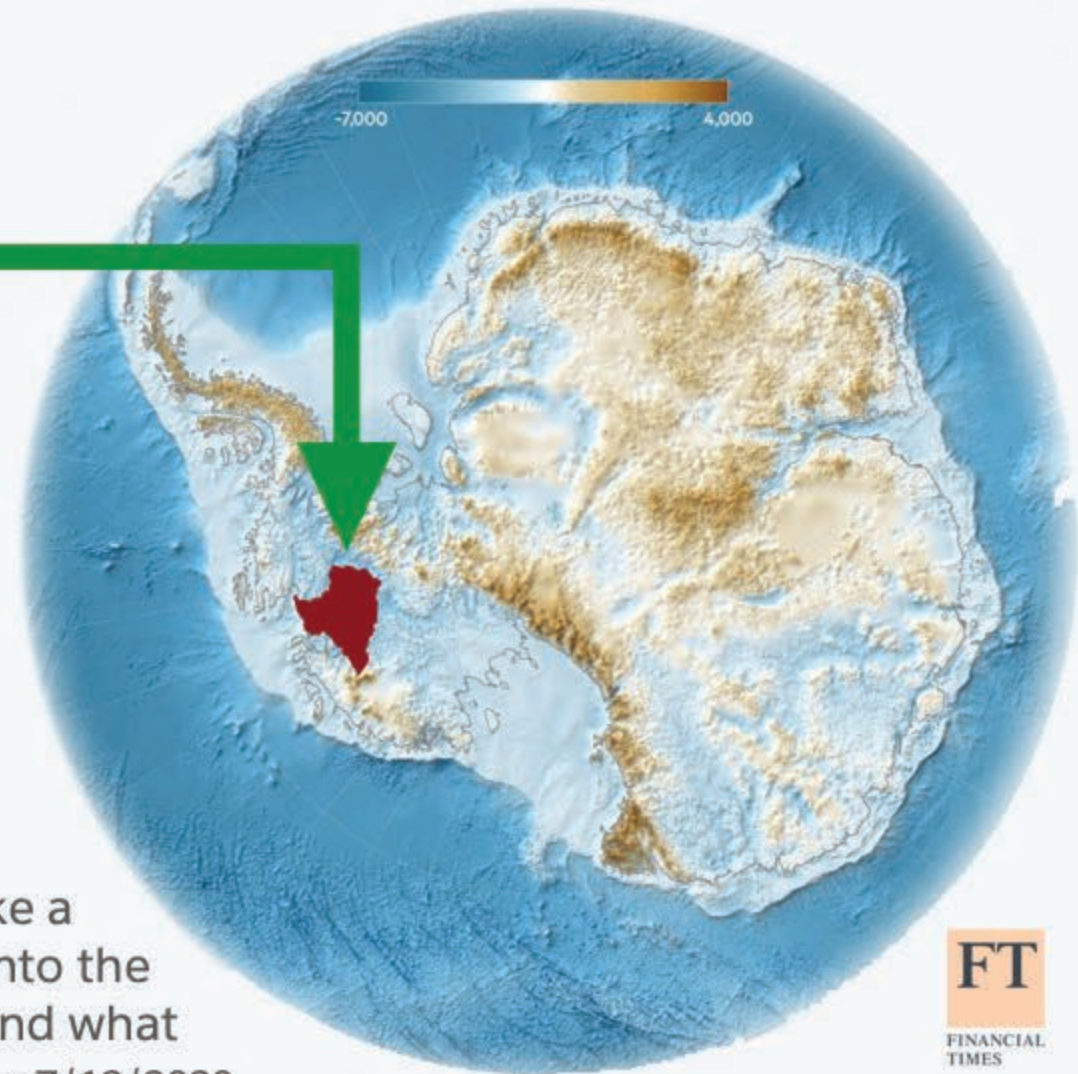


# This is just a rehearsal

Largest material-related impacts and benefits embodied in international net trade



[www.sciencedirect.com/science/article/pii/S0048969719319850](http://www.sciencedirect.com/science/article/pii/S0048969719319850)



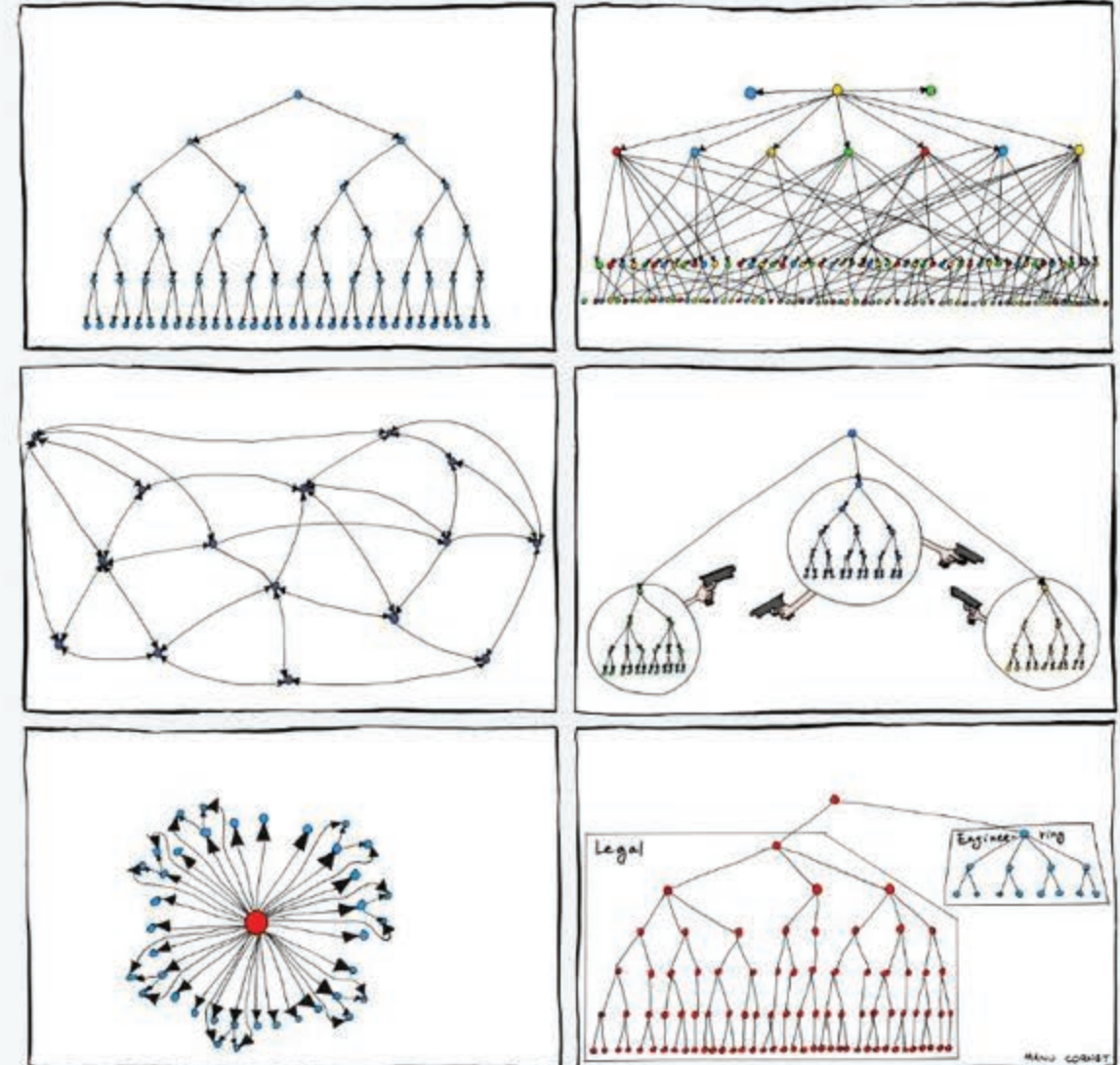
“The lower part of Thwaites Glacier, closer to the ocean, acts like a champagne cork, preventing the rest of the ice from flowing into the sea. ‘If that ice is removed, that is the cork, there is the pop, and what follows is a big rush of ice that comes behind it.’” - *Financial Times* 7/12/2020

# Build organizations and processes for resilience



## Don't demonstrate Conway's Law

- When an organization builds a system, the design of the system looks like the design of the organization
- If you want to devise a genuinely new system, you must be prepared to redesign your organization



# Build organizations and processes for resilience

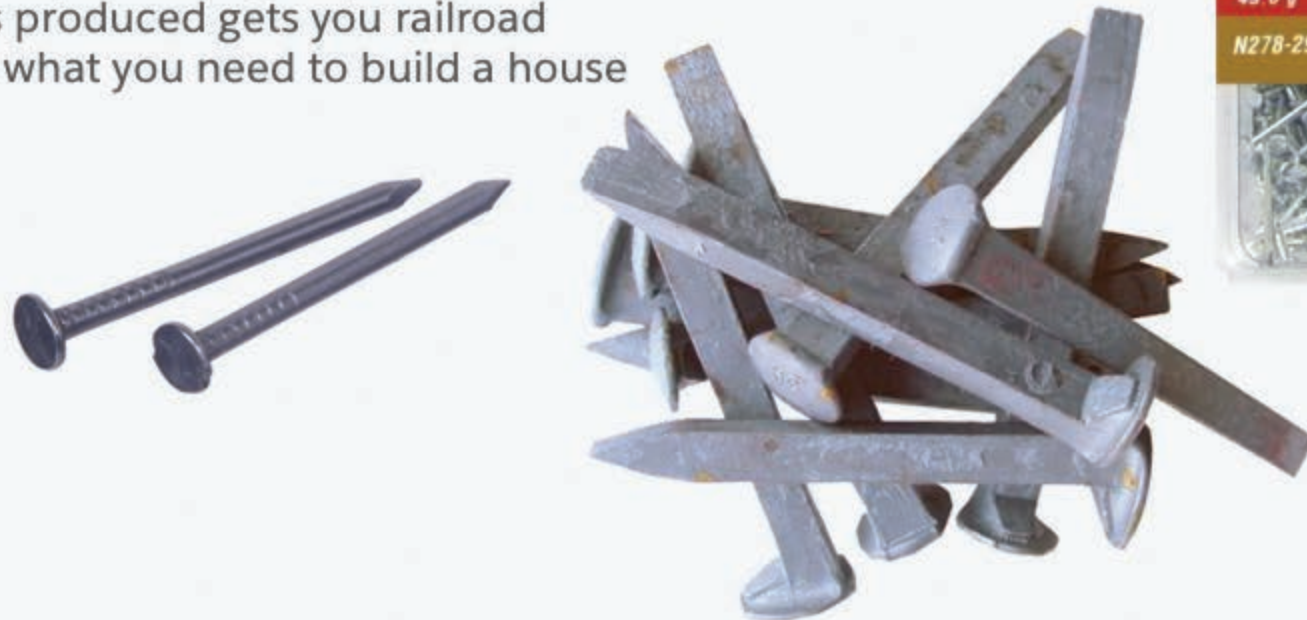


## Don't demonstrate Conway's Law

- When an organization builds a system, the design of the system looks like the design of the organization
- If you want to devise a genuinely new system, you must be prepared to redesign your organization

## Beware of Goodhart's Law

- When a measure becomes a target, it ceases to become a good measure
- Targeting number of nails produced gets you brads; targeting weight of nails produced gets you railroad spikes; neither gets you what you need to build a house



# Build organizations and processes for resilience

salesforce

## Don't demonstrate Conway's Law

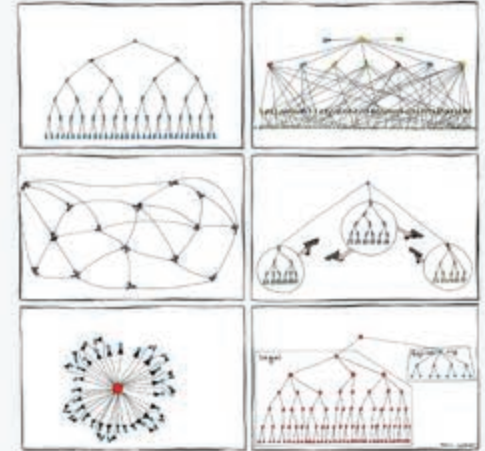
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## Follow Bumble Bee Tuna's Law of Project Naming

- No project may be named for the technology it deploys
- Any project's name must describe the business outcome it is meant to achieve



# Build organizations and processes for resilience



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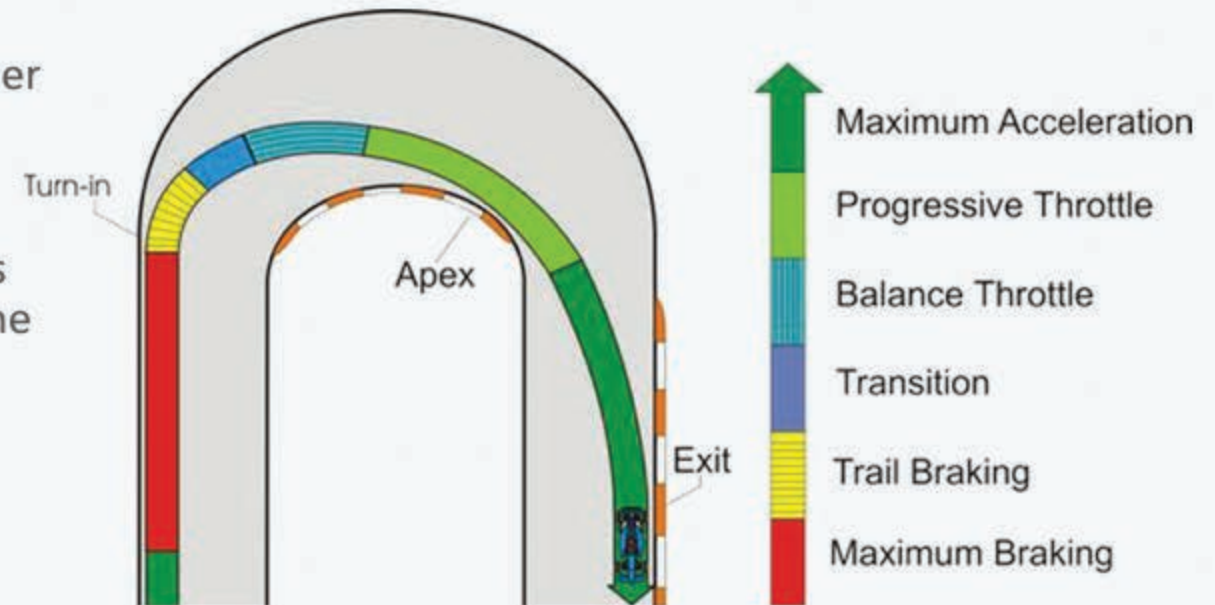
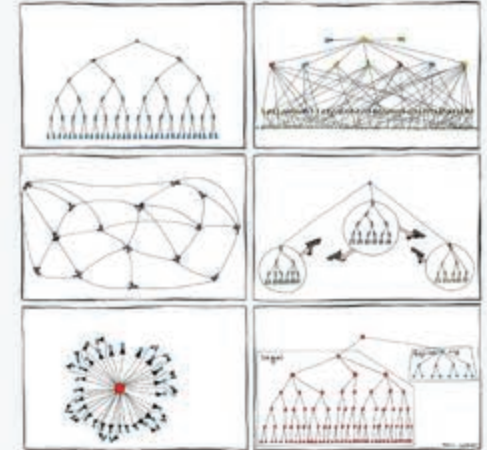
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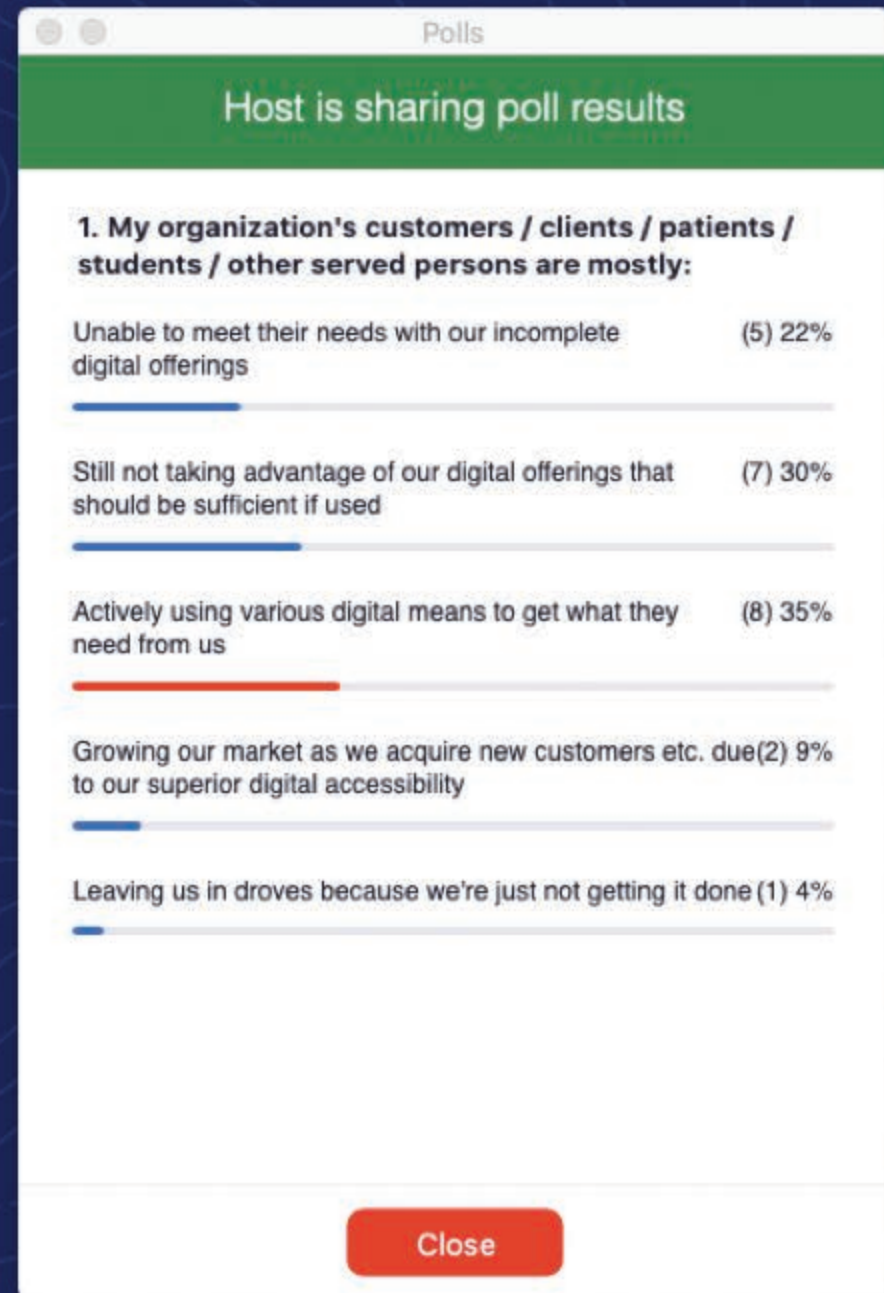
- No project may be named for the technology it deploys
- Any project's name must describe the business outcome it is meant to achieve

## Respect Hooton's Rule: Simplificate and Add Lightness

- Chapman's Variant: "Power makes you faster on the straights. Lightness makes you faster everywhere."



# Poll 4



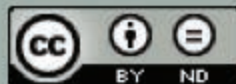


**Peter Coffee**

@petercoffee

"John Templeton famously said, 'The four most expensive words in the English language are "this time it's different."'"

10:26 AM · May 12, 2020 · [Twitter Web App](#)

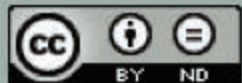
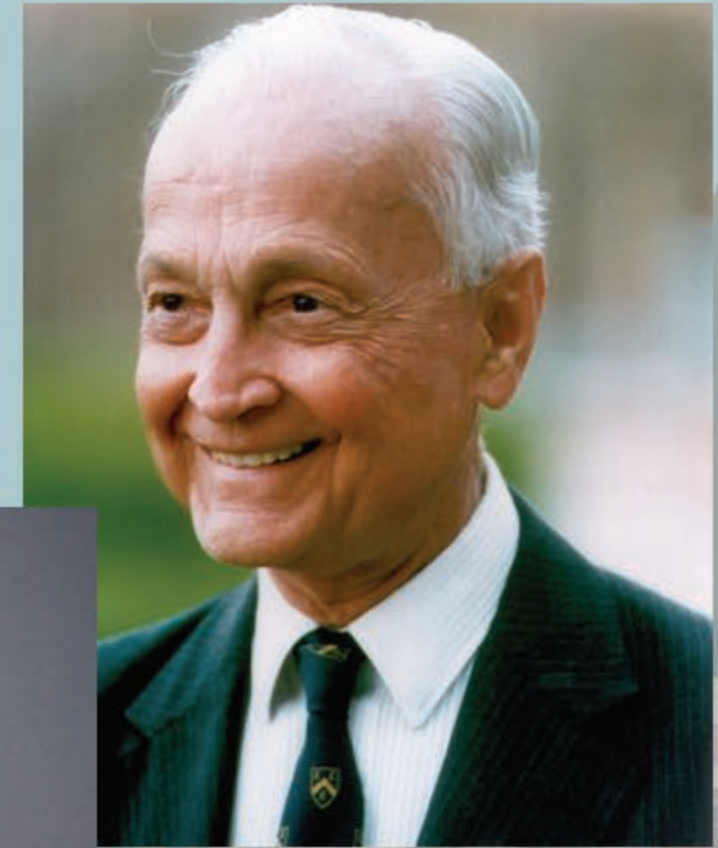




**Peter Coffee**  
@petercoffee

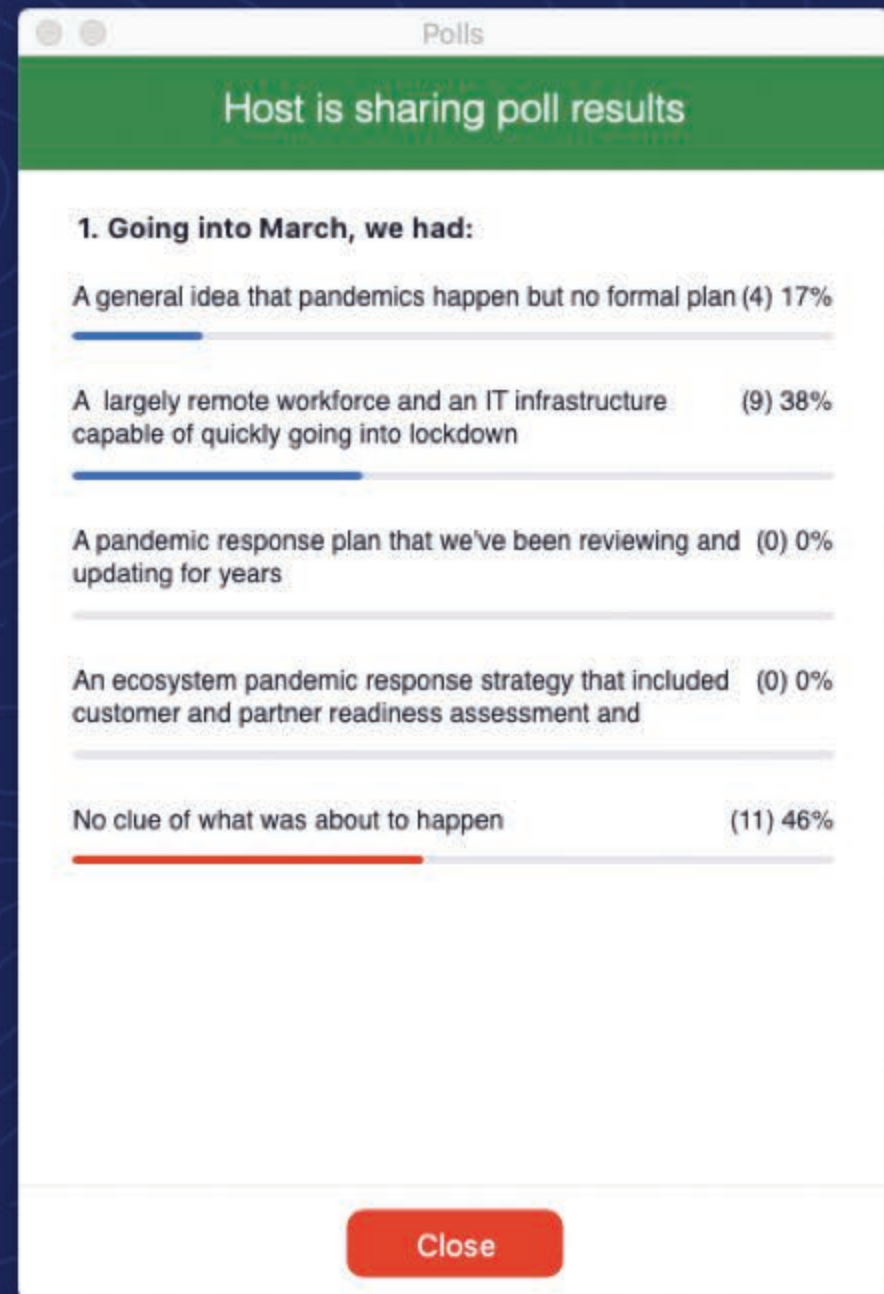
"John Templeton famously said, 'The four most expensive words in the English language are "this time it's different."' Among the biggest mistakes that can be made today is failing to realize that this time, it *\*is\** different." - David Rubenstein, The Carlyle Group [@FTLive](#)

10:26 AM · May 12, 2020 · [Twitter Web App](#)





# Poll 5





# Thank You

