THE MAVEN REPORT

Do you have a zombie workforce?

Quiet quitting *is* happening—but not for the reasons you think. Here's how to fix it.

ALSO IN THIS ISSUE:

Onset and PerkinElmer battle public health monsters and the ghosts of human error

How to spot an MSP partnership headed into toxic territory

The upside of IT leaders facing down contractual risks

THE MAVEN REPORT

The Maven Report provides pragmatic, actionable advice from industry experts who have led large teams through periods of serious disruption. Our Mavens believe no business problem is insurmountable if you leverage smart people who know how to harness the power of better technologies.

Meet the Mavens

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30+ years experience leading tech organizations, teams and individuals. Renowned speaker, mentor, writer and Amazon-bestselling author.

Former VP of Innovation at Hewlett Packard Enterprise.

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Our Mavens come from diverse backgrounds and organizations, and are not compensated in any way for thought leadership contributions to this publication.

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FOREWORD

These can feel like scary times…

In the spirit of the spooky season, we're focusing this issue on "ghosts in the machine"—the hidden dangers and untapped opportunities lurking in your IT environment and organization. While the timing couldn't be better, the topic is timeless. There are always unseen elements, good and bad, in any space or system. Our Mavens address a few of them, and provide some remedies.

"Do you have a zombie workforce?" That's the challenge posed by veteran technology leader and mentor Robert Christiansen in his feature article on the phenomenon of quiet quitting. Gallons of digital ink have been spilled on the subject. But, as Robert contends, almost all of it gets the root cause and its solution completely wrong. Here, he sets the record straight on why it's truly happening and what you can do about it.

Contractual risks are a scary subject that IT leaders would rather let Legal deal with. In **"Don't be afraid of the dark: The upside of leaning into risk"** (page 19), Pete Bazil makes a convincing case for leaning into risk to drive efficiency and business value.

Partnering with a managed service provider (MSP) can be a huge boon to businesses. But as Scott Grossman points out in **"Toxic hazard ahead: How to avoid a bad MSP relationship"** (page 15), not all partnerships are created equal. Scott looks at the steps you can take to avoid, identify, strengthen, or potentially exit, a partnership that fails to deliver.

Does quantum computing seem like something straight out of science fiction? World-renowned QC expert William Hurley—better known in the industry as whurley—connects the subject to business reality in his article **"The strangest things: Bringing quantum computing down to earth"** (page 24). And in **"Ghostbusters: Onset and PerkinElmer battle human error"** (page 11) Sean Mahoney explores how innovative automated solutions empowered two companies, Onset Computer and PerkinElmer, to help to mitigate the most frightening threats of all: Those to our health, including the COVID-19 pandemic.

In this issue's **"Ask a Maven"** column, seasoned digital transformation leader Kevin J. Field responds to a question about Frankenstein clouds. He explains how these potential monsters happen, and offers actionable advice on how to approach and manage them.

Finally, a call to action: *The Maven Report* is fueled by the goals, needs and curiosity of our readers. If there's a question or topic you want to hear more about or could use expert feedback on, we want to hear from you! Give us a shout at hello@themavenreport.com. And be sure to subscribe by scanning the QR code on this page.

All the best! *jb*

Jonathan Bumba
Editor–in-chief

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Do you have a zombie workforce?

Yes, "quiet quitting" is a thing.
No, it's not new—yes, it is likely your
fault, but not for the reasons
you've been led to believe.

By Robert Christiansen

LOGGED OUT

If you've read a few of the hundreds of recent articles on quiet quitting, you probably think you have a pretty good idea of what's driving this mass worker disengagement. The truth is, most of those assumptions and understandings don't get to the root cause of the problem.

Julia is a bright engineer I met five years ago. After receiving a master's degree in electrical engineering, she took a well-paying position with a firm managing mobile carrier sites. She put her head down and did the assigned work, hoping more creative, engaging opportunities would appear. Week after week, month after month, Julia wondered if the tasks would get more interesting. She struggled with her career choice and whether she made the right decision to be an electrical engineer.

Finally, she'd had enough of the mundane, institutional gray work her boss continued to assign. She looked at her work environment and said, "I'm out." In Julia's case, the decision was literal: She resigned and took a much lower-paying job as a barista, having saved up enough cash to weather the income hit.

However, most employees aren't in that position. They're just as fed up, but they have bills, mortgages and student loans to pay. They can't afford to leave their current position for less money. These employees don't offer their resignation. They don't leave the building. They're still present on the Zoom calls—and, most importantly, the payroll. They never actually leave and, yet, it is almost as if they don't exist.

They are the "quiet quitters" that have been the subject of endless recent think pieces and who, according to Gallup's *2022 State of the Global Workplace* report, make up as much as 50 percent of the workforce.[1]

[1] Jim Harter, "Is Quiet Quitting Real?" Gallup.com, September 2022.

All those articles on quiet quitting that are circulating often refer to egregious violations of basic "Management 101" principles as the reason for this zombie-like effect. They may cite examples like forcing their teams to work late nights and weekends or not recognizing a job well done.

These principles are essential, of course, but not sufficient to understand the situation. For this article, let's set aside matters of basic leadership and focus on the biggest root cause of the problem. Simply put, it is the nature of the work that creates this dissonance. The nascent Julias in your organization are looking for something you are not providing—and it's not more money, praise or PTO.

Leadership today has no choice but to wake up to the real issue: The quality of the work that we are assigning to our team members is draining away their attention, interest and energy—creating legions of zombies who go through the motions in their daily tasks and get just enough done to fly under the radar.

Robert Christiansen
Former VP of
Innovation, HPE

The quality of the work we're assigning our team members is creating legions of zombies who go through the motions in their daily tasks and get just enough done to fly under the radar.
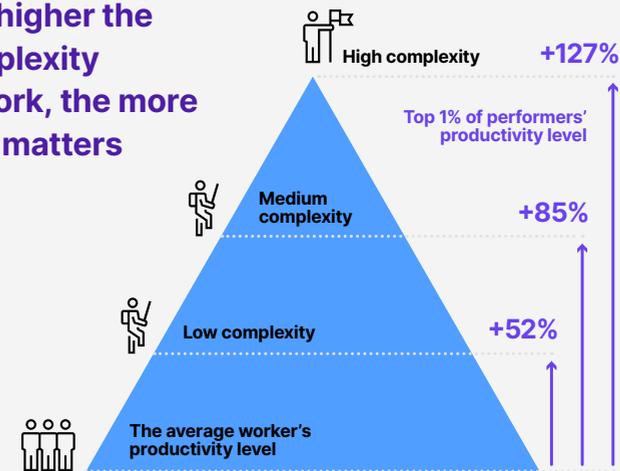
It's all about the work!

Imagine for a moment—you're sitting at a large table, and on it is a huge pile of shoes. Each shoelace has a knot that you are assigned to untangle. Each time you free a shoelace from its dilemma, your manager unloads another pile of mangled shoes with tangled shoelaces. Now imagine this replays over and over again. How long could you endure the monotony and frustration before checking out—regardless of how much you were being paid? Why would a highly educated person with in-demand skills, like Julia, take a minimum-wage job? Her short answer when I asked was, *"Because the work sucked."* Put another way, she was being tasked with untying knots.

Stop and think. Metaphorically speaking, are you asking your employees to detangle shoelaces with complicated knots? Consider two really important questions: 1) Are you asking your employees to do tedious work that should be automated by deploying modern technologies? 2) Does the work

The higher the complexity of work, the more flow matters

High complexity — +127%

Top 1% of performers' productivity level

Medium complexity — +85%

Low complexity — +52%

The average worker's productivity level

Source: John E. Hunter, Frank L. Schmidt, Michael K. Judiesch, "Individual differences in output variability as a function of job complexity," Journal of Applied Psychology, 1990.

they are doing help differentiate the business, and if so, do they understand how? If you don't like the answers to these questions, you shouldn't be surprised if you are not getting the productivity you expect.

The research is clear, the nature of the work matters—and it matters for everyone, regardless of generation. The graphic above, based on research from 1990, but just as relevant today, illustrates that the higher the complexity of work the more flow matters. We'll get to the concept of flow in a bit, but here I contend that what was originally identified as "complexity of work" is a proxy for "interesting and impactful work"—something employees can feel good about. Distraction occurs anytime the nature of the work becomes tedious and uninteresting, and the cost of this distraction is far more burdensome than you may realize.

According to the Gallup report mentioned previously, employee engagement is at a depressingly low 21 percent. Of the remaining disengaged balance,

60 percent are emotionally detached at work and 19 percent are miserable. Businesses pay a high price for this detachment and misery. Gallup estimates employee disengagement costs $7.8 trillion in lost productivity, globally.

An old problem with new influences

Despite the mainstream line that this is exclusively part and parcel of the current zeitgeist, what we're calling "quiet quitting" is not a new problem, nor is it unique to the younger faction of today's workforce. Prior generations almost certainly experienced professional dissatisfaction and its psychological and emotional impacts. A trip back to high school psychology class and Maslow's Hierarchy of Needs summarizes the phenomenon (see graphic on following page). The need to derive meaning and satisfaction from one's daily work is driven by human nature, not generational status.

Gallup estimates employee disengagement costs $7.8 trillion in lost productivity, globally.

What *is* unique about today is the options employees have. In the longstanding old-world order, when jobs were few and employers and leadership had all the leverage, appearing overtly less-than-enthusiastic about work was risky business. But a still-strong labor market combined with the rise of the gig economy means today's workers have alternatives previous generations simply didn't.
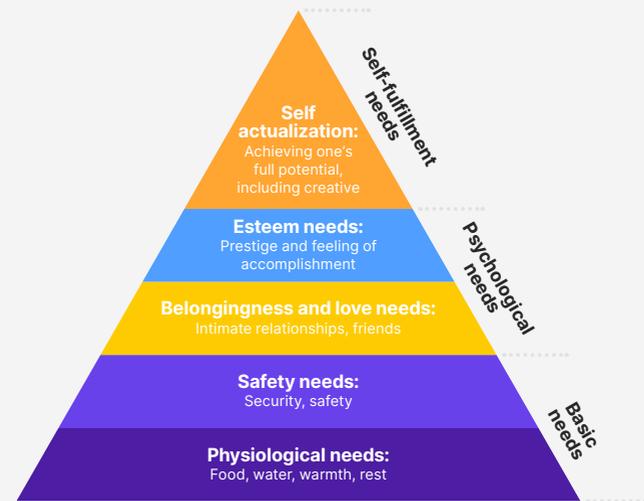
Maslow's Hierarchy of Needs

Even when employees aren't in an immediate position to explore those options, knowing they're available changes a person's perspective. Disengaging from a job that isn't delivering on your psychological and self-fulfillment needs (e.g. logging off and doing the bare minimum) seems less fraught with risk when the ultimate potential consequence—being fired—is both unlikely and pretty easily remedied.

As Maslow teaches us, once we get past our basic needs of safety and survival, we all want to be a part of something bigger than ourselves. We want to feel we are making a real difference—in our organization, for our clients and customers, and in the wider world.

The power of "flow"

If you're a Michael Jordan fan, you probably remember him talking about "being in the zone"—a Zen-like state in which he achieved a higher level of performance. In its well-known study of worker productivity, Forrester identified a similar state achieved among organizational teams—what it refers to as "the flow."[2]

On a basketball court, flow looks like effortlessly knocking down shot after shot—nothing but net all game, executed with both intensity and calm. According to Forrester, in a corporate context, it might look like this: You glance at the clock, astonished to discover that it reads 10:30 p.m. You can't remember anything around you between now and the last time you looked at it, around 6:30—about the time the last of your noisy officemates left for home—but you feel strangely satisfied and happy. You haven't had dinner, and you can't remember if you called your spouse to let them know you'd be late. Instead, your brain feels almost sparkly as you recall the moments of discovery and progress you made tonight. You savor the joy of having solved the hard problems that have been vexing your team for weeks. You are happy, you love your work in this moment, and you look forward to doing it all over again. What you may not realize is that you now know what flow feels like. If only all your coworkers could feel this all day long, they'd be much more productive. Is that possible?

The short answer is yes. Once anyone enters the flow, it is almost impossible to withdraw from the work—regardless of what management says (or doesn't say). And, back to Maslow, everyone wants to be in the flow. It's the manifestation of all those top-level needs being lit up like a pinball machine.

Identifying and providing work that fulfills their team members' higher-level needs and enables a flow state for them is the job of leadership. That requires *removing* from their plates work that doesn't achieve that end. The work may be essential to effective daily operations and must still be done and done well—those pesky knots still need to be untied if your business is going to run! But if the work is not a core differentiator, if it isn't directly relatable to your mission and institutional "why," then your team shouldn't to be doing it.

So... who will untie the knots?

Given the high cost of distraction, you have a choice between automating everything that can be automated (i.e., digital transformation) or finding

> **Given the high cost of distraction, you have a choice between automating or finding a service provider whose business is defined by doing this work. The best answer is to do both.**

a service provider whose business is defined by doing this work. The best answer is to do both. Nobody should deny the exponential power that technologies deliver through automation, but it takes real expertise as well as a highly agile operating model and culture to get the most from your digital experiences.

Companies with the most engaged employees enjoy:

81%
higher
customer satisfaction

103%
improvement
in employee turnover

Source: David Johnson, "How Technology Burns Out Employees And Erodes Customer Service, And What To Do About It," Forrester.com, July 2014.

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[2] "Engineer Your Technology Environment To Improve Productivity and Flow," Forrester Research, Inc., 2017.

Revive your zombies before it's too late

After three months in the barista job, Julia took a role at another service company. She asked questions during the interview about roles, duties and how assignments are made, and went with a company that put her desires and needs first. Today, she's doing challenging work she loves and feels reinvigorated, heard and validated. Her previous company could have provided her with all of this while she was still with them and kept a fantastic employee who would have been an asset to their business for years.

Don't make the same mistake with the Julias in your organization, who today are quietly being drained of their professional enthusiasm, pride and joy. They're not waiting for a bigger paycheck or more vacation days. They're waiting for more stimulating and challenging work that supports their identity, connects to a larger purpose, aligns with what they're great at, and provides a path for them to become even better.

Focus on providing your people with the work they find the most rewarding and engaging and let others untie the knots of the mundane tasks that, while essential, don't challenge or stimulate them. Then, sit back and watch your zombie workforce surge back to life! \\

In a separate Forrester study of IT executives[3], most agreed that focusing on that which differentiates your business and finding an ally to handle the work that might be essential but does not truly differentiate you is highly effective:

95% agree or strongly agree that by engaging with an MSP their business can take advantage of more growth opportunities.

80% agree or strongly agree that their business has grown at a higher rate since engaging with an MSP.

74% of IT executives plan to or are already engaged with an MSP to counter the impact of the Great Resignation.

And, perhaps most importantly, an overwhelming number of anecdotes suggest that leveraging the right ally provides more time to "Be creative (and stay in the flow)."
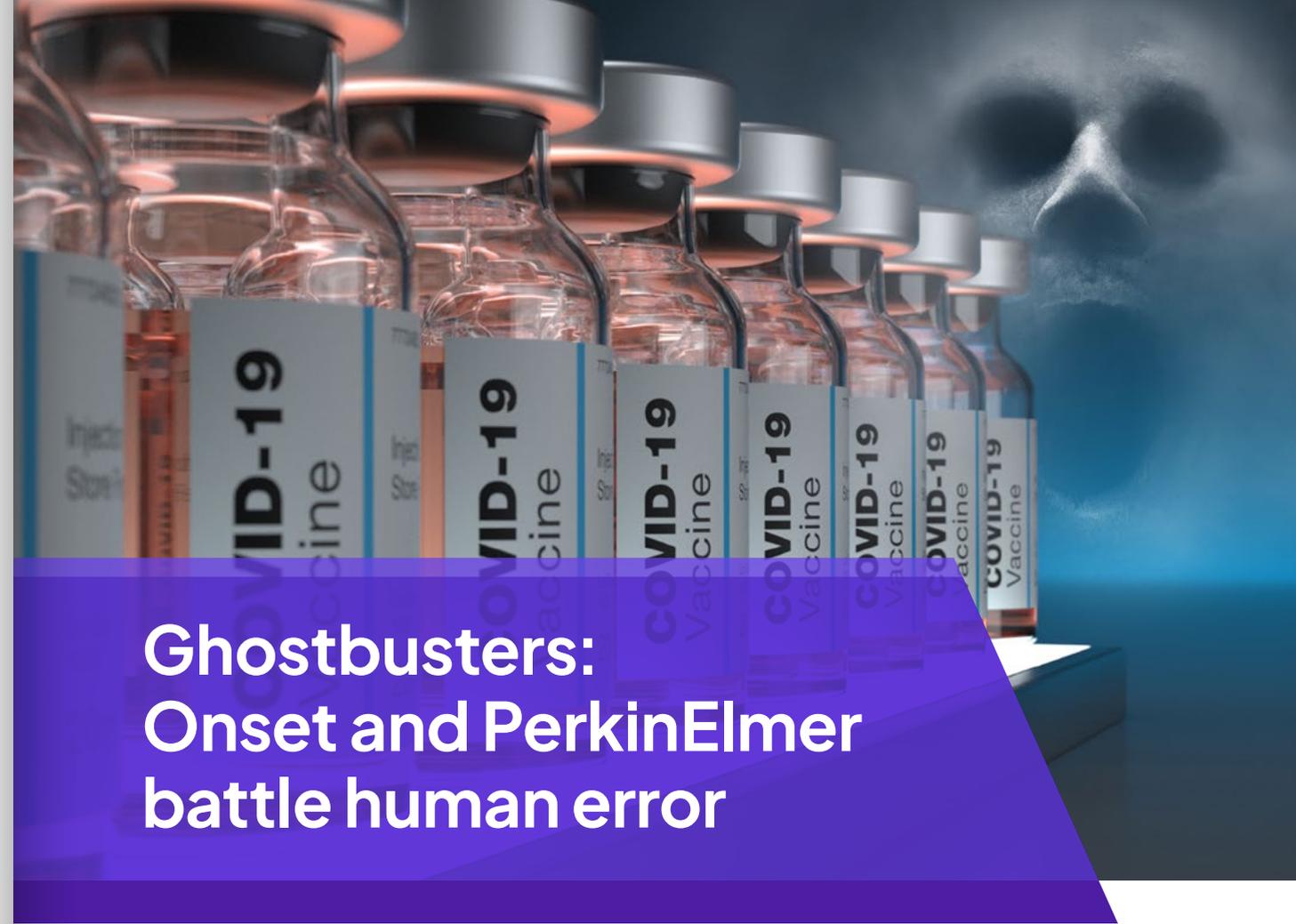
[3] "The Total Economic Impact™ of Ensono IT Infrastructure Management Services: Cost Savings and Business Benefits Enabled by Ensono IT Infrastructure Management Services," a commissioned study conducted by Forrester Consulting on behalf of Ensono, August 2022.

Ghostbusters: Onset and PerkinElmer battle human error

How two companies—Onset Computer and PerkinElmer— brought innovation and automation to the fight against health threats including COVID-19.

If I asked you to imagine the future of healthcare, you might picture groundbreaking research and development, robotic surgeons, holographic imaging... you know, real sci-fi stuff. A gritty 18-wheeler, noisily idling next to you on a traffic-jammed highway, probably wouldn't pop into your head.

Yet, that truck is a perfect example of where some of today's most critical and exciting healthcare innovations are happening. These innovations are focused on the spaces and places that support not just the discovery and development of treatments that keep us alive and well, but also their successful movement, storage and

distribution. Take something we've all been particularly attuned to the past few years: Vaccines. The journey "from lab to jab" is a long one, and at every stage of that journey is a complex set of factors that must be monitored and maintained to ensure this incredibly sensitive cargo remains both safe and effective.

Sean Mahoney
Vice President, Ensono Digital

A cold chain is a temperature-controlled supply chain.

0°

−60°

−90°

COVID-19 vaccines must be kept between −60 and −90 degrees Celcius.

Delivering "cold comfort"

One of most important environmental factors surrounding certain pharmaceuticals, particularly vaccines, is temperature. While many of the vaccines created to combat COVID-19, for example, can be used for up to 12 months from the manufacturing date if kept between −60 and −90 degrees Celsius, once it's outside of that range, their efficacy can quickly decline, resulting in wasted batches, lost revenue and delayed treatment.

Human involvement and intervention are critical to this process. People set up vials, turn on machines, program settings, take readings, load and unload crates, and perform countless other essential activities. But along with the irreplaceable power of human ingenuity, intuition and insight, comes the possibility of human error. Data can be logged incorrectly. Vials can be knocked over. Details can be missed. And the consequences can range from inconvenient to catastrophic.[1]

Potential for error aside, there are just not enough humans in the world to manage the movement of vaccines. As of October 2022, the CDC had shipped nearly 626 million doses of COVID-19 vaccines alone.[2] That gargantuan number doesn't include all the standard childhood vaccines, flu vaccines, vaccines for pneumonia and shingles and smallpox... the list goes on, year after year. Even if every human along the way performed perfectly, without a mistake, there is just too much volume and too many variables, known and unknown, for each team to manually monitor and control it all.

That's where the "cold chain" comes into play. A cold chain is a temperature-controlled supply chain. For vaccines, all related equipment and procedures are monitored for temperature. It begins with the cold storage unit at the manufacturer, extends to the transportation and delivery of the vaccine, and ends with the correct storage and administration of the vaccine to the patient. CDC regulations require daily recording and reporting of vaccine temperatures, as well as storage of this recorded data for up to three years.

This type of data collection normally requires manual recording and reporting, an inefficient approach which leaves ample room for inaccuracy and error. Adding sensors to trucks, loading docks, and the people doing the loading is a highly effective way to speed up the process, mitigate human error, and ensure data quality. Onset Computer of Bourne, Massachusetts, is one of the world's leading designers and manufacturers of such data-logging and monitoring solutions. Some of their customers have been logging data with technology for decades, so the company was not new to the business need when the pandemic arrived.

What was unique was the combination of urgency and complexity surrounding the distribution of the COVID-19 shots—a public health crisis that had effectively pressed pause on everything from education to the economy, pending widespread vaccine distribution and uptake, and a multi-dose protocol that significantly increased volume and put additional pressure on delivery timelines. These factors narrowed an already razor-thin tolerance for a supply chain failure even further.

This new reality demanded a better solution. To create it, Onset Computer's team developed a revolutionary reporting system that combined hardware with an application. Called "InTempConnect," the application paired an easy-to-use mobile interface with temperature-logging hardware to automatically record and send data from a physical data-logging device to a phone or tablet. This innovation allowed for more accurate monitoring and reporting at key touch points along the vaccine-transit route, as well as 24/7 monitoring of vaccines at rest in refrigerators.

Using InTempConnect, 50 precise readouts are collected per hour and automatically pushed to the application's cloud platform. Users can customize their reporting to build organized CDC-compliant views and audit both the usability of vaccines and the functionality of environmental-control equipment. In addition to the automatic data uploading and storage features, InTempConnect data loggers check temperature alarms on refrigerators, freezers and transit packages. If a temperature excursion is detected, the app sends an alert to users via text and email so critical product disposition decisions can be made quickly, reducing and preventing product loss.
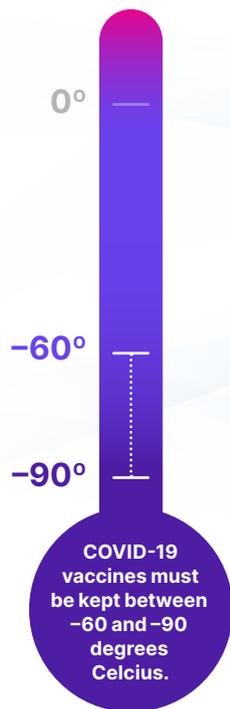
The introduction of the InTempConnect data logger and application system revolutionized the industry of vaccine transport, storage, monitoring and data collection, and created a new standard for the way the vaccine cold chain system operates. It was also great for business: Onset Computer was able to parlay this powerful technology into a new revenue stream. Best of all, it helped contribute to public health and helped slow the spread of COVID-19.

Keeping watch where people can't

PerkinElmer is another leading global provider of healthcare technology solutions with decades of experience. The company has both witnessed and driven incredible evolution in lab processing methods with modern instruments, shaving hours off earlier processing times.

Yet, these instruments still depend on human intervention to function, and in a lab with hundreds of machines analyzing thousands of results each day, a handful of technicians cannot keep up. It could take hours, for example, for a tech to discover that a single machine was stuck in an error state, then even more time to decipher the generic error code and trace the error to the source, all creating painful bottlenecks and frequent machine downtime. To a lab, this lost time is lost money. To the people at the receiving end of their output, it can be far more important—anyone who has waited by the phone for a test result, whether doctor or patient, knows that every extra minute can be agonizing, prolonging anxiety and delaying treatment and recovery.

ONSET®

PerkinElmer®

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[1] Rocky Swift, "Japan's Takeda says 'human error' caused contamination of Moderna vaccines," Reuters.com, October 2021.

[2] www.state.gov/covid-19-recovery/vaccine-deliveries

To combat these inefficiencies and their real-world impacts, PerkinElmer designed a comprehensive automated monitoring system that sent highly sophisticated technology into the cracks and crevices that humans couldn't reach.

Cameras, passive-error listeners and video diagnostics were installed in lab instruments to monitor and flag any processing issues, aggregating the data in a live application dashboard. The application also included a 24/7 real-time notification system which sent immediate mobile phone alerts to lab techs and managers of any error, and its potential source, so it could be addressed and eliminated immediately, potentially saving hours of lost production time per instance.

The solution resulted in faster processing times, increased machine uptime and fewer errors. It was a business win for the lab, which was able to increase both output and accuracy, as well as for PerkinElmer who, like Onset Computer, was able to turn the monitoring system into a new revenue stream. Most importantly, these gains enabled critical vaccines to move to market more quickly and got test results into the hands of providers and patients faster and with a higher assurance of accuracy, allowing them to respond swiftly and confidently in their pursuit of health.

A matter of trust

Along with the many other changes it wrought, the COVID-19 pandemic altered our awareness of the infrastructure underpinning and enabling our everyday lives. Manufacturing processes and global supply chains were largely invisible to most people in the "before times." Now we all understand how deeply dependent we are on their smooth and efficient operations, in some cases depending on them for our very lives.

Central to that dependence is trust—especially when it comes to sensitive products like vaccines and medicines. We implicitly trust that every vehicle (both figuratively and literally) involved in bringing them from their point of origin into our bodies, and those of our children and loved ones, has done everything necessary to keep them safe and effective, even when we don't know exactly what that care entails. Rare breakdowns in these systems are inevitable—but if they were to happen regularly, the blow to our collective confidence, to our very way of life, would be devastating. Thanks to the continuous application and evolution of technology, our trust endures.

COVID-19 is not the last monster humanity will face. Bigger and more daunting challenges will keep coming at us. But technology has always been, and will continue to be, a force multiplier for humans. We will keep lifting heavier things, remotely monitoring key metrics, and gaining visibility and control into unknown variables in systems that have the potential to harm us. By exorcising the ghosts of human error that haunt manual processes—inaccuracy, error, delay and more—automation will continue to help us solve our most urgent business, health and social challenges. I, for one, appreciate these "friendly" ghosts in the machine. \\\\

Toxic hazard ahead: How to avoid a bad MSP relationship

Enlisting a partner to fill in your expertise gaps can position your business to weather the coming economic storm unscathed. But sometimes, the danger is inside the house.

As we sit here staring down the barrel of a recession, the collective thoughts of corporate leadership are rightly focused on ways to preempt damage, minimize impact and ideally, maintain some level of up-and-to-the-right momentum.

Scott Grossman
Chief Financial Officer, Ensono

In my last *The Maven Report* article, "The Great Realization: Differentiate… or else," (Summer 2022), I posited that a strategy of differentiation is the key to countering the effects of a host of negative forces in the present moment, from Great Resignation-related attrition to stagnating growth, and how outsourcing IT infrastructure management to an experienced Managed Service Provider (MSP) can be a critical component of

that strategy. Doing so frees you to laser-focus your people and resources on the activities at which your company excels, without sacrificing operational excellence. A recent Forrester Total Economic Impact™ (TEI) report supports this thesis, identifying a direct, positive-revenue impact to working with a highly communicative and collaborative partner, with 95 percent of IT executives surveyed agreeing that a strong MSP

partner allowed them to take advantage of new growth opportunities, while improving efficiencies and cutting down on operational costs.[1]

But of course, not all partnerships—or agreements—are created equal. If you're trapped in a bad MSP partnership, these massive benefits might be nowhere in sight. In the current economic climate, you want to be as certain as possible that any investment you make is going to deliver the return you're counting on. When that investment is directed toward a services partner, applying some key insights and best practices can help you avoid a fit that's less than ideal, or course correct a relationship that's on the wrong path.

Five signs your MSP relationship may be headed in a scary direction

There are a few major signs your MSP relationship may not carry you toward the destination you're targeting. As you evaluate potential partners, or reexamine a partnership you're currently working with, here are some things to be on the lookout for:

#1) Impersonal service – Due to their size, large MSP providers can offer some impressive benefits, from an abundance of specialized services to reliably fast response times. But that same size can also lead to problems, especially if the MSP is so big that they start to feel impersonal. What exactly

does that look like? Infrequent, poor, and non-personalized communication are indications of a too-distant partner. Experiencing the same problems over and over again, or not being addressed in a timely fashion, are other telltale signs of a disconnect between your expectations and your partner's ability or willingness to meet them.

#2) Inflexible and/or unreasonable contract terms – What does it mean for an MSP contract to be unreasonable? For one thing, it might be overly long, which could be a sign that the MSP is making big promises that it can't deliver. It could also be overly complicated, making it more difficult for your organization to claim the services to which you believe the contract entitles you.

Inflexibility is another red flag. Ideally, a good MSP will leave some flexibility in their contract so that as your organization's needs change or expand you won't need to renegotiate from scratch or incur punitive termination penalties.

#3) A limited partner ecosystem – A major benefit of outsourcing your organization's IT to an MSP is the increased access to specialists and other technologies that you might not have been able to afford in house. Because MSPs typically operate on a larger scale, it makes sense for them to invest in special services and build partnerships with other service providers.

However, not all MSPs are the same. A limited partner ecosystem can be fine, depending on your needs, but discovering that your business could benefit from a particular service that your MSP can't help with is often an unpleasant realization because it can hamper your ability to evolve and innovate on your own timetable.

#4) Communication challenges – Whether you're using your MSP for day-to-day IT troubleshooting or larger IT projects, communication is key. While it's always great when your MSP is proactively communicating with you, it's more important that you can reach out to them whenever you want to discuss something—and that you're able to do so via a variety of channels, all of which are easily accessible, and equally active and reliable. If a change is important enough, you should be able to pick up the phone and speak with a real person directly involved in your project. For smaller issues, an email or online portal message may suffice—but you should never be in doubt about whether that message will be received with a prompt reply.

Unfortunately, some MSPs make this difficult on purpose, and it's no surprise that's a bad sign. If you're constantly running into gatekeepers when you're trying to get in touch with your MSP, or if you're simply not able to get in touch with them as often as you'd like, it can leave the door open to significant problems. The more personalized and high touch a partner's service is, the better that service is likely to be.

#5) Lack of strong project management skills – A good MSP can put a lot on the table, from standard IT support to larger projects intended to revamp your organization's capabilities. As we've already seen, it can be problematic if your MSP doesn't have a solid network of partners or specialists on staff that you might need to work with. But even if they do, it won't be worth much if your MSP lacks project management skills. How will you know if they are lacking in this area? For one thing, projects won't be moving forward at a healthy pace, and might frequently get stalled. A lack of project updates is another common sign.

5 signs your MSP relationship may be headed in a scary direction

1 Impersonal service
2 Inflexible and/or unreasonable contract terms
3 A limited partner ecosystem
4 Communication challenges
5 Lack of strong project management skills

[1] "The Total Economic Impact™ of Ensono IT Infrastructure Management Services: Cost Savings and Business Benefits Enabled by Ensono IT Infrastructure Management Services," a commissioned study conducted by Forrester Consulting on behalf of Ensono, August 2022.

Taken individually, none of these necessarily constitutes a partnership disaster or cause for panic. As with personal relationships, clients and MSPs need some time to get familiar with each other's styles and ways of communicating and collaborating. Addressing any concerns early on, as soon as they surface, can often right a ship that feels like it's veering in the wrong direction. But if you've signed onto a partnership that ticks one too many of the above boxes, you could be facing a problem that requires more serious action.

Many aspects of toxic personal relationships are also present in a toxic business context: Unmet needs, disrespect, lack of trust and an inability to communicate.

In toxic territory? Here's what to do next

Many of the aspects of toxic personal relationships are also present in a toxic business context: Consistently unmet needs, clear disrespect, a lack or loss of trust, and an inability or refusal to communicate. Finding yourself in a place like this with your service provider can be incredibly nerve-wracking, both logistically and financially. You've invested time, money and resources into something that is delivering sub-par returns, you've created stakeholder expectations that are doomed to be disappointed, and, in all likelihood, you're contractually obligated to maintain the relationship for an intolerable length of time—possibly years. While these contracts can be tight, there are still a few options on the table for you.

Talk to your MSP – In the best of all possible worlds, having a serious discussion with your MSP about their performance problems can actually patch things up. For instance, there might be a simple communication error or misunderstanding that, once resolved, will leave both parties happy. If you're set on getting out of the partnership, talking to your MSP is still worthwhile, as they might be willing to

let you out of your contract. It's not a guarantee, of course, but there can be a steep reputational price to keeping a dissatisfied client stuck in their contract — and that can be a serious problem in today's saturated MSP marketplace.

Look into renegotiating – So you're unhappy with your current MSP, and they won't let you out of your contract. On top of that, they aren't actively trying to take in your feedback and improve their performance. What exactly can you do? Remember that it's a bad look for an MSP to have a long-term dissatisfied customer and that provides major leverage. Even if they don't want to lose an income stream by letting you out of your contract, they may still be open to the idea of renegotiating, which can result in lower cost to you for a reduced set of services.

Dig into your contract – If these approaches are unsuccessful, you may need to seriously consider an early termination. Combing through your contact carefully can help unearth any potential breaches—typically, your MSP will need to have failed to produce a deliverable written into the terms of the agreement. If your MSP is in breach of contract, you can inform them of this fact and begin the process of leaving your contract, freeing you to reevaluate the benefits to your business of partnering with an MSP and potentially pursue a more fruitful relationship elsewhere.

Even if you don't identify a way to exit your agreement free and clear, the price to terminate may be worth paying. The value of the time, talent and innovation you'll lose waiting for a contract to run out could add up to far more than whatever dollar amount a separation would cost you. The point of contracting with an MSP is ultimately to help accelerate your growth and drive revenue. \\

Don't be afraid of the dark: The upside of leaning into risk

IT leaders play an important role in managing contractual risks. Take the time to lean into those risks and take advantage of the opportunities presented, and you'll deliver appreciable value to the business.

Pete Bazil
Chief Legal Officer, Ensono

Risk is a strange concept: Opaque notions that could have huge, critical and painful impact… or no impact at all; fears that could manifest at any moment… or not materialize in a century.

This kind of uncertainty is often dreaded by overloaded and time-constrained IT leaders, who need to ruthlessly focus their attention on what they can control and solve for now—not what "could" happen in some hypothetical future scenario. As a result, the typical CIO or IT executive doesn't usually spend a lot of time digging into the risks in a contract. They might say things like,

"Ah, that's not gonna happen," "Isn't that what we have insurance for?" or, my personal favorite (insert sarcasm here), "Legal will take care of it." To a certain extent, that's understandable. The great majority of risk is exposed and managed in how you operate. Technical gaps or operational lapses are where the real risks will surface, and no amount of contract magic will be able to

completely mitigate the fallout. The rest of the risk can be managed in how you've contracted—basically, what happens when things break—which can be very material in terms of impact. It is important that IT leaders and Legal work together to properly anticipate legal ramifications—who owns the liability, what are the remedies, what are the contingency plans, and how can you exit if the vendor doesn't meet their commitments, among other considerations.

Legal's attention to potential impacts and risk allocation may at times appear over-protective or unnecessary, but it is their job to partner with leaders to anticipate how things can go bad and have a plan for them. And it's IT leadership's job to execute quickly and deliver results. Both mandates need to exist—they're a natural and important check and balance on each other. But too often they come into conflict, like when a completely new approach or commitment gets urgently escalated late in the game. It does not have to be this way.
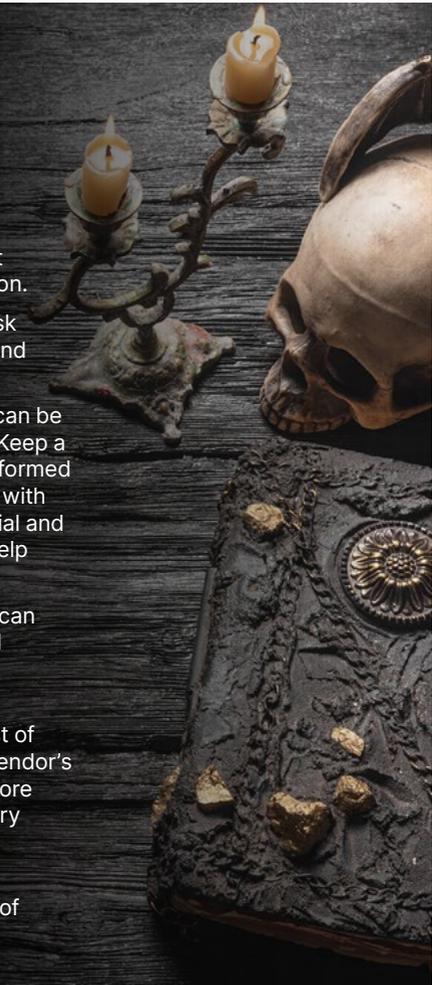
When IT leaders take the time up front to understand the risks in a contract, the benefits to the deal, the business, and the leader personally are significant. And to be clear, it does not have to be a massive investment of time or energy

drain. Focus on and lean into the key contract risks and you will deliver appreciable value by:

- Proactively managing important issues before they crop up.
- Saving significant time and money.
- Delivering signed agreements faster and with less negotiation, redlines and stress.

Focus on five key contract risks

The specific risks presented in an IT contact naturally vary from deal to deal. But at a high level, they can be bundled into five key categories, each of which offers an opportunity for those IT leaders who take the time to consider and respond to them.

RISK CATEGORY:

Technology

Technology spending can represent a significant capital expense. Especially in the kind of uncertain economic environment we're in right now, that kind of commitment comes with pressure to sweat assets and deliver ROI, which can suppress or stop innovation and progress.

Managed Service Providers (MSPs) can offer that same technology in a monthly recurring-cost model without the same level of up-front capital expense, but ultimately they are subject to the same set of ROI pressures. The way MSPs often deal with that is to lock their clients into long-term contracts that assure their return on capital. Great for the provider's P&L forecast, maybe not so great for your strategic vision or transformation roadmap. In a world of hyperinnovation, being locked into a three- to seven-year contract for any tech is a potential kiss of death, forcing you to press pause on innovation and watch from the sidelines as your competitors pass you by.

Lean-in strategy: Solve for flexibility.

One way to mitigate the inherent risks in tech investment is to purchase and undertake in phases where you can, to limit spend in any phase and allow greater flexibility to pivot. It will be important to structure each phase to be able to deliver on its own return, and not be dependent on future phases or timing to unlock that return.

If outsourcing your IT infrastructure to an MSP is part of your strategy, consider partners that offer flexibility and support your digital transformation on the timeline that supports your company's goals—for example, by enabling you to make a commitment to one IT platform then transition to another later without any early termination fees. You want a partner to be fully allied to and supportive of your longer-term digital transformation journey, rather than be a hindrance to it.

CONTRACTING CONFIDENTIAL:

A rogue lawyer's guide to getting to signature fast

By following a few simple guidelines, IT leaders can proactively prevent downstream hang ups and keep contracts on the fast track to finalization.

- **Ace Contract Risk 101:** Be a partner to Legal by understanding the risk categories, consequences and opportunities outlined in this article, and take responsibility for decisions.
- **Define your risk register:** Tackling all the risks facing your company can be a laborious magic trick that detracts from other important initiatives. Keep a risk register that prioritizes risks based on gravity and likelihood, is informed by cross-functional company leaders, and has been reviewed/tested with various outside advisors (including your board, auditors, legal, financial and operational advisors). Understand how your contract is intended to help mitigate or manage top risks.
- **Prioritize proactively:** Shifts in strategy, market trends or leadership can change a company's risk priorities. Establish a regular risk review and prioritization process with your stakeholders to ensure that you have internal alignment and support.
- **Know your "nons," "must haves" and "can't gives":** Create a short list of non-negotiable terms in an agreement and address them with your vendor's account team before anything goes to Legal. Odds are, you can be more effective with the vendor than your Legal team, and avoid unnecessary cycles once these are defined.
- **Partner preemptively:** Have a contract on the near horizon? Connect with your Legal team now, before things become urgent. Active lines of communication, opened early, can help avoid bottlenecks.

Security

The 2022 Ponemon Institute/IBM Security® Cost of a Data Breach report revealed some not-surprising but nonetheless sobering statistics: The average cost of a data breach in the U.S. is $9.44 million; globally, it's a lower-but-still-painful $4.33 million.

With 83 percent of the companies studied having experienced at least one breach, all businesses need to approach the risk as a "when, not if" situation and respond accordingly. And while cyber insurance is essential to help cover financial losses resulting from a security breach, you can't insure your way out of the hit to your reputation or customer goodwill.

Lean-in strategy: Act preemptively.

What you can do is get out as far ahead of it as possible. Establish clearly defined security processes, controls, tooling and people focused on managing external and internal threats. Subject those processes and protocols to regular testing by internal and external auditors. Enlist a partner to conduct a thorough assessment of your IT estate to surface any weak points or lurking threats and determine recommended remediation and/or hardening actions.

As you rely on technology partners to deliver on these remediations, hardening or other security requirements, it is important that the contracts with those partners directly align and fully cover those requirements including clear remedies for any failures, prompt or real-time reporting and auditing rights as appropriate.

RISK CATEGORY:

Labor

Between the Great Resignation, the quiet quitting phenomenon, and the shortage of mainframe and cloud talent, labor has become an especially acute risk for IT leaders. The pain is even greater for enterprises that run many of their most critical applications on mainframes, as the workers experienced in these platforms and their esoteric software code are aging out. Enterprises are racing to move certain apps from mainframe to the cloud to gain agility, while at the same time trying to outpace the phasing out of the mainframe workforce.

In addition, many enterprises embrace a hybrid IT estate as the future, and the mainframe can be the best place for apps to reside for performance and security reasons. There is a need for the talent to manage these critical platforms. It's important to have a labor plan that supports this need, now and in the future, through a combination of internal and external sources.

Lean-in strategy: Insource thoughtfully, outsource wisely.

On the internal side, make sure your team members are supported with challenging and fulfilling work that fits within their scope and aligns with their skill set. As Robert Christiansen discusses in "Do you have a zombie workforce?" (page 4), and the recent Forrester study cited confirms, this is perhaps a company's most powerful strategy in reigniting employee engagement, countering quiet quitting and stemming the tide of attrition.

MSPs can support by assuming non-core activities you want to shift off your employees so they can focus on the more important things that differentiate your business. And they give you access to a greater, and sometimes global, pool of talent with expertise in the areas your own team lacks, removing or reducing the expenses associated with higher cost territories, training and development. Not all talent is the same from a quality-of-experience perspective and some providers can overpromise, so it's important to do your diligence and get assurance on the depth and breadth of the teams within your chosen MSP including service level agreements (SLAs) with financial penalties in the contract that put teeth behind those labor commitments. For more, see "Toxic hazard ahead: How to avoid a bad MSP relationship" (page 15).

RISK CATEGORY:

Expense

A common goal among tech companies is to reduce the revenue-to-expense ratio over time and increasingly improve margins, delivering greater operating leverage.

For every dollar of revenue, you want, over time, to spend a little less on the stuff that delivers that dollar. Continuous cost optimization is necessary to remain price competitive and win your space.

Lean-in strategy: Assess how you're currently buying.

Have you tested the market recently, through RFP or selective quotes? Consider whether you can buy direct from IT vendors, such as a reseller or MSP, more cost effectively than through a channel partner. In some cases, providers can offer economies of scale that can deliver greater discounting than your company may enjoy on its own. In any case, be sure to contractually lock in the discounting structure and tiers as you consolidate or increase your spend in order to assure lower unit costs or greater value over time.

In addition, MSPs can offer the benefit of converting capital to operating expense or other financial engineering over a committed term, which can help clients seeking to reign in their balance sheet or secure a more flexible expense model. Take care to secure the contractual language that supports the desired expense outcome.

RISK CATEGORY:

Liability

Every technology company operates with the threat of liability. Your company makes contractual commitments to clients, and your providers make contractual commitments to your company. Many companies operate under a myriad of legal requirements and regulatory oversight. Mistakes can happen, employees can do bad things, or sometimes things happen and it's not clear if you're at fault or not.

In any case, where there is a harmed party, there is often a party who will seek compensation for that harm. Claims fly, costly litigation can ensue and ultimately company P&Ls can suffer. Companies absorb that risk through different types of overlapping insurance coverage, either contractually from third parties such as insurance carriers and vendors, or self-insurance.

Lean-in strategy: Lift and shift.

As with cost optimization, the goal is to reduce the ratio of revenue to company liability over time to improve operating leverage—for example, by seeking out ways to shifting some of your liability to third parties.

Here again, MSPs are a resource worth considering. In exchange for your business, they will effectively sign up to insure certain risks attached to the services they will deliver, in addition to any coverages from your insurance carrier. There are often limits set in the contract for that protection (i.e., "limitations on liability") so make sure those limits are market-based and proportional to your investment with that provider and the harm they could cause you.

And be careful when outsourcing the risk attached to critical services, to choose MSPs that have the demonstrated expertise, reputation, and track record to deliver a high level of service. In that case, you could get the double benefit of greater operational assurance and a free insurance policy.

At the end of the day, it isn't any one IT leader or lawyer taking on the risk in an agreement, it's the entire business. Each party involved brings a unique and important perspective to risk and each one can spot issues and surface solutions the others can't. Partner early with Legal and apply a powerful combination of IT and risk lenses to your next contract, and you'll be sure to reap many benefits. \\

It isn't any one IT leader or lawyer taking on the risk in an agreement, it's the entire business. Each party involved brings a unique and important perspective to risk and each one can spot issues and surface solutions the others can't.

The strangest things: Bringing quantum computing down to earth

whurley
Founder and CEO, Strangeworks

Quantum computing can seem out of this world. It's time to shed some light on what's possible and what's science fiction.

As with any exciting modern technology, quantum computing can seem like something from the distant future—something we just aren't ready for or don't need to understand yet. But that's far from the case. Though they may seem esoteric and remote, QC (as it's commonly referred to) and other non-traditional compute technologies can offer practical solutions to a variety of common business problems and are worthy of your organization's understanding and consideration as you build for the future.

Before breaking down the major benefits offered by quantum computing technologies, it's important to understand just what attributes make quantum computing so exciting. Quantum computers are exponentially faster than traditional computers for certain types of workloads. Calculations that would take even a supercomputer hundreds, thousands or even millions of years to solve can be solved by a quantum computer in a matter of minutes, hours, or days. But that incredible speed is only part of the endless impossibilities of quantum computing.

How QC challenges everything (we think) we know

To get a sense of the full picture, imagine you've got a coin in the palm of your hand and you're about to perform a coin toss. In this exercise, heads represents a one and tails represents a zero. Now toss the coin. When it reaches the apex of its spin, is it a one or is it a zero? The answer is, it's in a quantum super position of some probability of a one or zero. Much like Schrödinger's famous cat experiment, it's only when we complete the coin toss by catching the coin on our wrist, collapsing the quantum state, that we know if our coin represents a one or a zero.

Why is this so important? Let's translate our coin toss into actual bits and quantum bits ("qubits"). Bits are the basis of all computational power in the world today. If I have four bits, I can have 16 outcomes. But in a classical computer using bits, I can only be in one of the possible 16 outcomes at any given moment in time.

To conceptualize a qubit, replace the coin you were picturing with a soccer ball. If the ball is pointing directly up, we have a one. If we rotate it to point directly down, we have a zero. But we can rotate it on several axes like X, Y, Z, and H—H being a combination of two rotations. This is where the exponential power of quantum computing comes into view. If I have four qubits, just like in the classical computer I have 16 outcomes. However, unlike their classical counterpart, these quantum bits can be in all 16 possible outcomes at the exact same moment in time.

This is the main difference between "classical" and "quantum" computers. It's not just about solving problems faster than before—it's about solving problems that have been previously unsolvable. When a problem contains massive amounts of variables and multiple possible outcomes, traditional computers stall at the scale of the problem, creating long evaluation times. Quantum computers, on the other hand, are specifically designed with just this type of problem in mind.

Promising use cases across a broad range of fields

Because quantum computing technologies help with the simulation of complex systems, they're able to address a wide variety of use cases in chemistry, economics and beyond.

In the field of economics, quantum computing will execute macroeconomic modeling algorithms that are not possible with traditional systems, due to the sheer scale and complexity of all the variables in the real world. The result would be more efficient and smoothly operating trade and financial systems.

The main difference between classical and quantum computers is not just about solving problems faster than before—it's about solving problems that have been previously unsolvable.

When it comes to running simulations, quantum computing offers potential benefits to molecular modeling, which will make it easier to develop new drugs and treatments, as well as new materials for batteries. Cybersecurity will also stand to gain from quantum computing—while a quantum computer will likely make it easier to break many existing forms of encryption, a network protected by quantum computing will be far more secure than today's systems.

Quantum computing will also make dealing with large and complex databases much easier, allowing truly massive troves of data to be sorted and sifted for actionable insights.

Why the future of quantum computing is already here

So, when will QC actually "arrive" in the so-called mainstream? Pessimists see it as six to 10 years away; optimists think it's more like two to three. But realists are preparing today. Right now, we're seeing a major uptick in interest in quantum computing, with tech giants like IBM and Google going all in on this emergent technology and some of the world's most recognizable companies already applying it to all kinds of everyday problems:

Mitsubishi – The global automobile manufacturer has already started using quantum computing to optimize truck routes for waste collection—with impressive results. On average, each truck has reduced its average travel by more than 1,000 kilometers.

Frankfurt Airport – One of the most frequented, and massive, airports in the world has taken advantage of quantum computing to reduce passenger transit time for the more than 170,000 passengers that move through the facility every day.

FS Italiane – Italy's national railway is using quantum computing to solve difficult optimization problems, including scheduling, assigning platforms to incoming trains, worker deployment, maintenance, and freight load distribution.

NASA – In conjunction with MIT's Lincoln Laboratory, the U.S. space agency has started to develop a quantum laser system to help relay information from the International Space Station (ISS).

And it's not just major corporations and government agencies like these who are taking quantum computing seriously. Strangeworks is on a mission to humanize quantum computing and make it accessible to everyone. We're helping to accelerate the integration of this new technology across a broad spectrum of organization types and sizes. We are not alone. From startups to universities and beyond, interest in quantum computing is now reaching a critical inflection point.

Take a look at the graphic on the right for some truly impressive stats around QC. These numbers aren't just the result of a slow build up of interest in quantum technologies. Over the last few years, investment in quantum technologies has skyrocketed. Just between 2020 and 2021, venture capital funding for quantum computing more than tripled, from $900 million to $3.2 billion—with $1 billion of that funding distributed in the last three months of 2021.

What results can we expect these investments to have? And more specifically, what technological advances can we expect to come first? Many experts feel that the next few years will see the widespread availability of quantum accelerators (secondary on board CPUs) that are as easy to use and accessible as today's GPUs, as well as quantum networks that will offer secure communication and quantum sensors that boost mapping, timekeeping, and other capabilities.

WHERE THE QC INDUSTRY IS AT

229
QUANTUM STARTUPS WORLDWIDE
AND COUNTING

37
MAJOR UNIVERSITIES OFFER A
MASTER'S DEGREE IN QUANTUM TECHNOLOGY

9
COMPLETELY DIFFERENT QUANTUM TECHNOLOGY APPROACHES

ANNEALING · TRAPPED ION
TOPOLOGICAL · PHOTONIC
SUPERCONDUCTING
COLD ATOM · NV DIAMOND
QUANTUM DOT · HELIUM

220+
QUANTUM COMPUTING PATENTS IN 2020

2011 2012 2013 2014 2015 2016 2017 2018 2019 2020

3
PUBLICLY TRADED QUANTUM COMPANIES

EQTC · IEEE QUANTUM WEEK · QUANTUM2BUSINESS · IAMP
PLAQC · QUANTUM AUSTRALIA · DIVERSITY IN QUANTUM
QUANTUM.TECH BOSTON · QUANTUM BUSINESS EUROPE
PHYSICS OF QUANTUM ELECTRONICS · QUANTUM.TECH SUMMIT
QIP · QUANTUM COMPUTING FOR BUSINESS · Q2B TOKYO
SQUINT · QUANTUM DAYS · QUANTUM WORLD CONGRESS · QTML
QTML · QUANTUM.TECH · QUANTUM INFORMATION PROCESSING · PQE
ICQOM 2021 · GOOGLE QUANTUM SUMMER SYMPOSIUM
QUANTUM INFORMATION AND MEASUREMENT · QCRYPT
SOUTHWEST QUANTUM INFORMATION AND TECHNOLOGY
MORE CONFERENCES THAN ANYONE COULD ATTEND

$30 BILLION
TOTAL GLOBAL QUANTUM INVESTMENT

$15B	CHINA
$3.1B	GERMANY
$2.2B	FRANCE
$1.3B	UNITED KINGDOM
$1.2B	U.S. QUANTUM INITIATIVE
$1.1B	EURO QUANTUM FLAGSHIP
$1.1B	CANADA
$1B	INDIA
$904M	NETHERLANDS
$700M	JAPAN
$663M	RUSSIA
$380M	ISRAEL
$282M	TAIWAN
$109M	SINGAPORE
$98.5M	AUSTRALIA
$40M	KOREA

Source: Strangeworks, Inc.

Separating science from science fiction

Understandably, there's been plenty of hype around quantum computing. But while it offers impressive benefits and use cases, there are things it simply can't do—or at least can't do yet—and if we're going to talk about quantum computing seriously we need to separate what's real from what isn't.

While quantum computing offers impressive benefits and use cases, there are things it simply can't do—or at least can't do yet—and if we're going to talk about it seriously we need to separate what's real from what isn't.

We shouldn't have to say it, but quantum computing isn't going to immediately solve every problem we throw at it. For instance, it isn't going to suddenly start breaking blockchain and crypto passwords.

That said, there are still a ton of use cases for quantum computing with the potential for results that might sound like science fiction but are very real. When it comes to finance, quantum computing might not predict all possible market outcomes—ushering in a paradise of economic stability—but it will provide better models that dramatically increase institutions' ability to predict valuable outcomes. The same is true of medicine and materials—we won't suddenly have a cure for cancer or purely renewable energy resources, but quantum breakthroughs will help accelerate research into these potentialities, bringing them closer to reality.

How to start embracing quantum solutions—and the risks of ignoring them

Unlike past technological advances, the pivot to QC isn't a quick one. Preparing a developer could take anywhere from 12–36 months. So, if you think your company is three, five or 10 years out from needing to worry about quantum, you're already behind. That's sobering news for any innovation-focused organization, even more so for those whose competitors are currently on the quantum march, which yours very well may be: Recent surveys have shown that 23 percent of business executives are already implementing quantum technologies or are planning to do so.[1]

Fortunately, you don't need to go "big" to start building toward your quantum future… you just need to start. Here are three moves your organization can make today that will put you firmly on the path to quantum readiness:

Step 1) Take your team's quantum temperature: The best thing you can do right now is start thinking about your quantum workforce. Currently there are extremely limited talent pools in this area, so most likely you will have to grow your own, which as mentioned above, can take time. Survey your team to see who already has some passion around this subject (in a bunch of tech folks, I can almost guarantee you'll find a few) and pull them together into an informal working group.

Step 2) Build up internal expertise and vision: Task this group with exploring quantum computing, where it might apply to your core business, and what resources you might need to actualize it within your organization. There are plenty of free resources that can help

advance understanding of the topic, including a Linux Foundation training that Strangeworks recently assisted the Linux Foundation and the World Bank in creating.

Step 3) Engage in a little QC reconnaissance: With your QC tiger team in place and your quantum roadmap taking shape, launch some informal investigation into what, if anything, your competitors are doing on the QC front. Scour press releases, dig into their public-facing content and put your ear to the ground of your shared networks. Knowing what moves they're making can provide concrete direction for your efforts—and potentially strengthen your business case for getting additional resources sooner rather than later.

Like a lot of innovations that were once considered outlandish, impossible, or the stuff of science fiction, quantum computing is going to be commonplace before you know it. Invest the time now to understand it and how it can support your business goals, and you'll be ahead of the curve instead of playing catchup. \\

Recent surveys have shown that **23% of business executives are already implementing quantum technologies** or are preparing to do so.

[1] Matthew Gooding, "Quantum uncertainty: Is quantum computing really ready for action in business?" TechMonitor.ai, August 2022.

THE IT HAUNTED ESTATE

The tech you can't see that can hurt you

GHOST ASSET

A piece of corporate hardware, software or other tech whose existence and activities are invisible or unknown.

30%
of companies' fixed assets may be ghosts

Ghost assets present a very serious risk to any company. Imagine the inherent danger of a laptop or cell phone packed with confidential info carried off unnoticed by a departed employee, or that same employee accessing proprietary systems with unrevoked credentials. The security, compliance and reputational vulnerabilities these little monsters can create are truly the stuff of nightmares.

ZOMBIE SERVER

A server actively residing in your environment but no longer serving a purpose or delivering meaningful value.

The issue with zombie servers has less to do with scary things like security and compliance, though they can create those vulnerabilities, and more with cost and energy. They eat up licensing fees, memory and CPU with nothing to show in return.

25–30%
of virtual severs may be zombies

SHADOW IT

Tools or applications actively running within an organization without the knowledge, approval or oversight of IT.

Shadow IT takes many forms, some more menacing than others. Mainstream apps installed by employees to support productivity can be relatively harmless. But anything that opens a door to the outside world creates vulnerabilities that can become bigger and more threatening the longer they stay hidden.

50%
IT spend that goes to shadow IT

FRANKENSTEIN CLOUD

An IT environment comprising a disparate collection of cloud platforms, applications, services and tools.

A Frankenstein Cloud can be a real horror show or a well-oiled strategic machine. It all depends on how and why it was constructed, how much visibility you have into the functioning of its separate pieces, and how it operates as a whole.

81%
of public cloud users have at least two providers

3 SECRETS
TO WARDING OFF YOUR IT DEMONS

SCRUTINIZE YOUR PROCESSES

Are cumbersome procurement requirements forcing employees into the shadows for apps they need? Do messy exit processes send departing employees off with ghosts in their pockets? Are IT assets tracked manually leading to human error? Most people want to comply with corporate rules. Do everything possible to make that easy.

ELEVATE YOUR TRAINING

Make sure every employee knows where to find and how to follow your process guides. Week one training modules are great, but if an employee doesn't encounter one of the covered areas until month six, the details have probably faded from memory.

CALL IN THE EXORCISTS

Your best bet to root out cursed tech is to call in the professionals. A partner with expertise in IT discovery and assessment can give you both the nitty-gritty details and the big picture, plus guidance on how to resolve existing issues and evolve your environment in a healthy way.

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Am I confronting a Frankenstein cloud?

Dear Mavens,

I'm the new CTO of a midsize financial services company and have walked into what seems like a hybrid IT mess: Multiple cloud providers, some connected, some not, data and apps spread all over the place. Right now, everything seems to be humming along fine. But should I be worried? Can you share some best practices for addressing this issue and building a better path forward without disrupting or breaking what's working today?

JT in Connecticut

Hi JT,

Congratulations on your new role! Now, regarding your perceived "mess," the extremely non-technical—and definitely frightening—term for what you have on your hands is a "Frankenstein cloud." That is to say, a mix of providers, platforms and services, brought on at different times by different leaders for different reasons, and effectively "stitched together" after the fact to create a quasi-cohesive cloud solution.

The good news is, this is not necessarily the big bad monster that its name suggests. Many organizations today very intentionally operate with a mix of public, private and hybrid clouds, each of which makes sense for a specific and valid business reason.

However, as someone new to the organization who did not have insight into, or influence over, the business decisions (or lack thereof) behind these choices, your concerns here

are understandable, and not off base. Even with a well-considered, multi-cloud strategy, more complexity means more time, money and risk. It's a lot to manage, which is why running with a very lean IT team could be reason enough to explore consolidating to a single platform. If you're reasonably well staffed, then whether or not the complexity you're looking at adds up to a "mess" really comes down to how well your organization is running in three key areas.

The three elements of a stable Frankenstein cloud

#1) Architecture – Ideally, your organization should have an enterprise cloud architect who determines which clouds make sense for the business, sets the strategic direction and design standards, identifies how identity access and application and data management should be structured in the cloud, and decides which tools can and should be used. Depending on your company size, you may also have architects at each division, down to the project or solution level, whose job is to make sure that what they're coming up with is compliant with the overall architecture or if not, to open a dialog and potentially change standards.
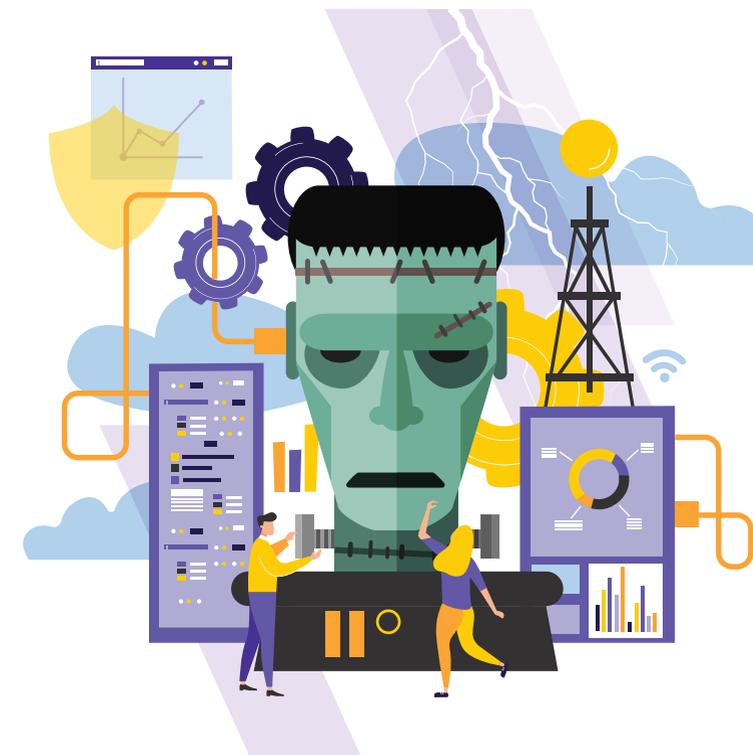
#2) Governance – Closely connected to this is governance. This is the team responsible for overseeing risk and risk management for each of the divisional cloud architectures and implementations and should be working in close collaboration with the architecture team.

#3) Security – Finally, but most importantly, is security. Above all else, your data must be vigilantly protected. That requires a CISO or other security-focused leader working hand in hand with your architect to ensure that your chosen tools and deployment paths are going to be safe and secure.

Having good coverage across these three functional areas should give you reasonable assurance your Frankenstein is tamed and can remain so moving forward. But that does not mean there aren't hidden vulnerabilities and potential threats lurking somewhere in its disparate limbs, or the seams between them. Something as innocuous as an overlooked expired certificate can turn into a system showstopper. The various automated cloud reports you have access to provide some valuable data points here. But they won't really tell you whether you have an overall problem.

Regular assessment is the best insurance policy

The best way to surface that is by running an assessment of your entire IT estate. You want to go server by server and application by application to understand the full context of each item. Who owns it? How current is it?

Is it still active? Is it still delivering value? Is it being fully leveraged? And, of critical importance, what are its relationships and dependencies across the environment? Siloed knowledge is a major cause of systemic breakdowns; dissolving those siloes will give you the truly holistic picture you need.

To do this right, I recommend leaning into automation and expertise. Spinning it up into a sidebar project for your internal team would most likely distract them from the business-critical tasks they were hired and trained to focus on, without delivering the results you're looking for.

Enlisting a partner with specific experience in cloud-native database and application management and monitoring will get you to that position of clarity a whole lot faster and with far more accuracy. They're going to have a deep understanding of the tools you have and how those tools can best support your unique business outcomes, and they'll know how to automate as much of the process as possible and where to leverage manual interactions for maximum impact.

This discovery process will surface your hidden red flags and help define the immediate actions you need to take to remediate them. It's also going to reveal opportunities for efficiency and cost-savings.

Finally, but by no means final, you should appeal to the business to make this an integral, always-on part of your IT strategy, not a one-and-done event. The alternative, rinsing and repeating the whole process from scratch every few years, will cost a lot more and leave your organization vulnerable to attack—with all the financial and reputational damage that goes along with it.

When facing a Frankenstein—be it a monster or a cloud—you should always maintain a healthy respect for its power and potential. But with proper attention, care and management, you don't have to fear it. \\

Answered by Kevin J. Field

Kevin is a CIO and transformational leader, currently in the insurance industry. As a thought leader, Kevin serves as a Columbia University Executive Master's Program mentor, on company and industry boards, as a startup mentor, influence mentor, innovation and transformation judge, and has presented his successful approach to cultivating a high-performance culture at CHRO and CIO conferences. You can read more of his tech insights at kevinjfield.com.

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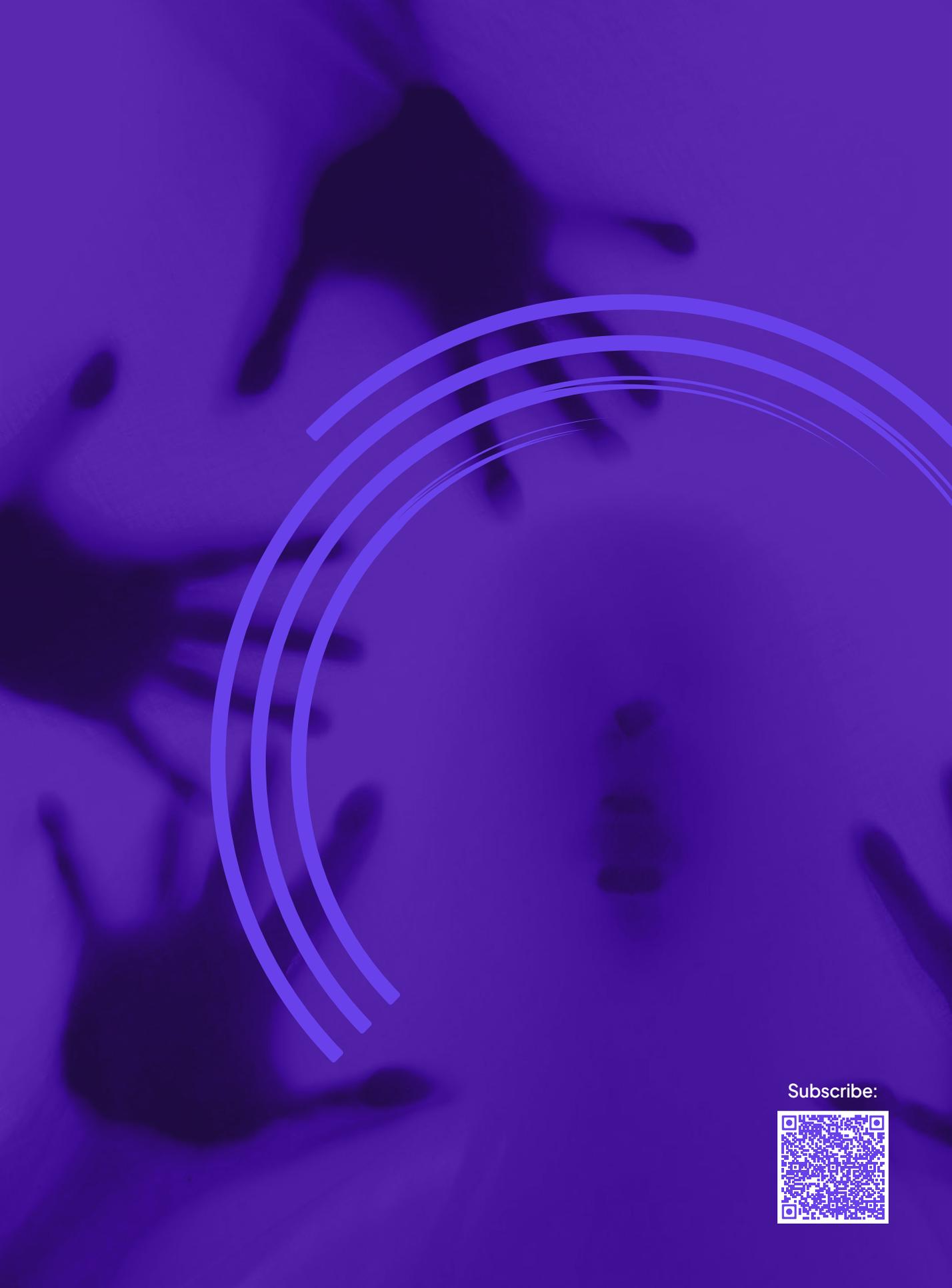
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