

# AI FOR BUSINESS

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AI FOR BUSINESS

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WORKPLACE

# Employers fear the consequences of shadow AI

Workers are increasingly using AI without employer approval, raising legal and security risks for businesses. Clear policies are needed to curb the danger

Emma Woollacott

AI has caused significant consternation across workforces, with fears the technology will replace employees. Even so, many workers are happy to use generative AI in their jobs – but perhaps not in ways their managers would like.

Some bosses claim to encourage innovative uses of AI to streamline workflows. However, too many employees are using the technology in ways that are not sanctioned by their employers, in a phenomenon known as 'shadow AI'. According to Deloitte, just 23% of those who have used GenAI at work believe their manager would approve of how they've used it. Crucially, the unofficial use of AI in the workplace is putting organisations at legal, financial and reputation risk.

So why are so many workers using AI on the sly? And what can employers do to clamp down on the practice?

The University of Sussex and marketing firm Magenta are undertaking a research project into how GenAI is being used in the communications industry. The aim is to produce a best practice framework for businesses, which can be adapted and tailored to their own needs.

According to the survey's preliminary findings, workforce IT is rife with shadow AI. One in 20 workers told the researchers that they're using AI in total secrecy – and many more are at least partially secretive.

"More people talk about it with their co-workers than their managers and they aren't always open about the extent to which they are using it," says Greg Borkiewicz, a senior consultant and digital lead at Magenta. "In many cases, their employer simply hasn't asked if they are using it."

The main reasons for using GenAI in secret include fears of accusations of laziness or incompetence and embarrassment over needing help, according to the survey.

Moreover, many workers say there's no need to tell their employer about their use of AI because it doesn't really matter. Managers must take notice of this sentiment, because the use of shadow AI does matter – a lot.

Shadow AI can pose significant legal, ethical, operational and security risks. It can also expose companies to substantial fines under regulations such as the General Data Protection Regulation (GDPR) in the EU and the California Consumer



Privacy Act (CCPA) and Health Insurance Portability and Accountability Act (HIPAA) in the US.

Security threats are a particular concern. Only a quarter of ChatGPT accounts used in the workplace are corporate accounts, according to research from data security firm Cyberhaven. These non-enterprise accounts feed information into public models, posing considerable risk to sensitive data, explains Cyberhaven CEO Howard Ting.

"Alarmingly, a substantial portion of sensitive corporate data is being sent to non-corporate accounts. This includes roughly half of source code, research and development materials and HR and employee records," he says.

Indeed, 38% of UK office workers admit that they or a colleague have fed sensitive information – such as customer, financial or sales data – into a GenAI tool, according to research from data management firm Veritas Technologies.

"The financial implications are also significant," says Luke Dash,

CEO of compliance platform ISMS. online. "Misuse of AI can lead to unexpected costs for damage control, compliance fines and compensatory damages, diverting resources from sanctioned initiatives and affecting overall profitability."

Despite these risks, organisations are failing to impose strict policies on the use of AI in the workplace. Market research firm Sapio Research recently found that fewer than half of businesses have restrictions on the information that can be submitted to an AI, limitations on which roles can use GenAI, guidance on acceptable use or strict limitations on access.

The ISO 42001 standard for AI management systems is a good starting point for a shadow AI policy. This outlines best practices for the management of secure and ethical AI systems, including elements such as data privacy compliance, security protocols and continuous risk assessments.

More broadly, policies on shadow AI should address the types of AI

tools that may be used, any approvals that should be sought before using the technology and any limitations on using AI-generated copy or outcomes, says Chris Hogg, a partner at Bloomsbury Square Employment Law.

The policy should also include directions on oversight and due diligence. It should clearly state who has responsibility for evaluating and approving the use of new AI technologies and spell out the consequences for breaches of the policy.

"A clearly worded policy reduces the risk of employees using shadow AI as there are clear parameters for them to follow," Hogg says. "It also makes it easier to take action against employees who continue to use shadow AI to the detriment of the business."

Nicholas Le Riche, a partner in the employment practice at law firm BDB Pitmans, agrees. "Crucially, the policy should expressly confirm that it applies to the use of AI on both an employee's own device as well as work devices and it should also explain that content generated by AI applications will be monitored," he adds.

Regular reminders can help keep staff on track. Cyberhaven Labs found that when workers are presented with a pop-up message warning them when they do something potentially dangerous, such as pasting source code into a personal ChatGPT account, ongoing risky behaviour falls by 90%.

Global digital product studio and B Corp Ustwo recently developed a policy covering shadow AI. "Our AI control serves as a formal document within our ISMS (information security management system) and across our company policies, providing clear rules and transparency for anyone who wishes to understand our approach to AI," says head of IT Greg Rochford.

The policy details everything from data collection and training to innovation strategies, Rochford explains, along with the deployment of AI within Ustwo and for the company's clients.

Such clear policies not only strengthen internal security, but they also reassure clients that their data is being handled responsibly, says Rochford.

As organisations ramp up the use of AI across their workforce, managers would be wise to ensure that employees using this technology are doing so out in the open, not hidden in the shadows. ●

HOW EMPLOYEES ARE USING GENERATIVE AI

Share of UK workers using GenAI at work for the following purposes



Deloitte, 2024

INSIGHT

## 'The challenge is effectively scaling up AI adoption'

Professor Alan Brown suggests some guiding principles for making large-scale AI work

The buzz surrounding AI is inescapable. Every day, new AI capabilities are announced, upgraded models are released and unexplored applications come into focus. Alongside this avalanche of news is an increasingly polarised debate about AI's impact on society. The 'AI doomers' claim that we are witnessing the beginning of the end, while the 'AI boomers' believe the future has never looked brighter.

How should organisations interpret these advances? What critical aspects of AI will shape their future? And, what does this mean for ongoing digital transformation projects?

The expectations of return on investment for AI have been ambitious. For instance, a study by the Alan Turing Institute in March 2024 found that AI could be a driver of massive productivity gains in the coming years.

But will these possibilities become reality?

Serious doubts are emerging about whether AI will live up to expectations. Headline breakthroughs are struggling to reach the bottom line. Slow integration with existing systems and concerns about security and privacy are stalling the rollout of AI in larger organisations, while small-scale AI use elsewhere is not yielding significant gains beyond a few narrow applications in customer service and marketing.

The true challenge lies in effectively scaling up AI adoption. To succeed, critical questions need answers: How can we translate learnings from pilot projects into enterprise-wide transformations? What obstacles must be overcome to seamlessly integrate AI into existing workflows? How can early successes develop into measurable, substantial benefits?

Leaders and decision-makers are struggling to move from the initial phase of AI experimentation to AI value-creation. To progress, they need guidance that recognises their specific issues and focuses on the challenges of AI adoption. They need a set of concepts to help them understand the risks and opportunities they face in using AI technologies. They want to see examples of AI success and must acquire knowledge of AI's core capabilities to ask better questions about what's available, what's on the horizon and what's still a long way off from being deployable.

Finding ways to deliver AI at scale is becoming the key focus for organisations. Several best practices are emerging. First, scaling up AI from pilot programmes to enterprise-wide initiatives demands meticulous planning and substantial investment. Starting small is vital. Pilot projects conducted in controlled environments allow for testing and refinement before broader implementation. This cautious approach mitigates risks and paves the way for informed decision-making.

Second, progress depends on starting with a robust foundation. AI will exert pressure on existing systems and skills. Ensuring technological and organisational infrastructures are equipped to support AI is critical. This includes robust data management, powerful computing resources and a skilled workforce.

Finally, change management is vital for successful AI adoption. People are integral to this process. Successful case studies demonstrate how leaders must consistently communicate their vision, address concerns and provide necessary training to secure buy-in from all stakeholders. This supports the ultimate goal of continuous improvement. AI is not a set-and-forget solution. It requires ongoing monitoring and refinement. Delivering AI at scale requires feedback mechanisms that track AI performance, learn from outcomes and continually enhance AI applications.

Many organisations are adopting AI to rejuvenate stalled and stagnant digital strategies. By understanding AI's true potential, leveraging it for digital transformation and scaling up solutions effectively, leaders can transition from merely surviving in the age of AI to thriving in it. ●



Professor Alan Brown  
AI director, Digital Leaders

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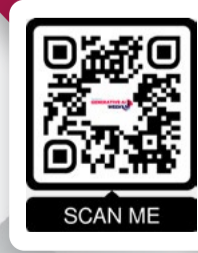


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# Rack to the future: how AI factories can transform enterprise IT

As AI adoption surges, the need for advanced infrastructure and expertise is pushing organisations to seek more robust and specialist solutions

With the rapid rise of generative artificial intelligence, more CIOs and VPs of Infrastructure are looking to optimise their IT infrastructures to unlock the technology's potential. Today, 42% of IT professionals at large organisations report that they have actively deployed AI while an additional 40% are actively exploring using the technology.

Yet as IT environments evolve at an unprecedented pace, many data centres are proving incapable of providing the foundation for organisations to develop and implement AI applications at scale.

This is because AI demands more resources than traditional computing, meaning the need for processing power has surged exponentially. Some estimates suggest that data centre power demand will grow 160%

by 2030. At present, data centres worldwide consume 1 to 2% of overall power, but this percentage is on course to rise to 3 to 4% - if not more - by the end of the decade.

As a result, AI requires specialist data centre and physical infrastructure systems, including high-density racks and

“Organisations need to have a clear understanding of how AI can benefit their business before thinking about the infrastructure to support those plans

highly energy efficient cooling - things are currently beyond many organisations' existing data centre understanding and capabilities.

At the same time, a third of organisations (33%) said limited AI skills, expertise or knowledge is hindering the successful adoption of AI in their business. More than one in five (21%) said they lack the necessary tools or platforms for developing AI models.

So, what can those enterprises do to address those challenges? The answer is that they must look beyond their existing data centre infrastructure. They need an environment that brings together the necessary ingredients - compute, storage and networking power, data intelligence and talent - to develop and implement cutting-edge generative AI models.

Today, they need AI factories, specifically designed to help organisations leverage the power of AI. But what is an AI factory and how do they differ from more traditional manufacturing factories that we're used to seeing? Put simply, an AI factory is a data centre that produces actionable AI. AI factories, which include servers with GPUs and high speed networking from Nvidia will become a significant portion of all data centres as AI takes even greater significance in the coming years.

"Car factories take atoms and mould them into cars. An AI factory takes data and moulds it into knowledge,

or predictive knowledge," explains Michael Schulman, senior corporate communications manager at Supermicro. "It's a factory, but it's not a factory many people are used to."

## AI factories versus traditional data centres

With CIOs taking the lead on their organisations' ambitious digital transformation plans, it is important they understand the benefits that AI factories can deliver if they are to unlock next-gen business value through process automation and workflow optimisation.

As part of this, they must develop holistic infrastructure strategies built on unified systems and service level agreements (SLAs) to their constituents that deliver results while minimising down-time, keep energy intensive servers cool and high-performance hardware working optimally and sustainably.

"With an AI factory, you have to think a little bit differently than with an enterprise data centre," says Schulman. "Servers are going to draw much more power than they ever did before - but many existing data centres are limited in the amount of power that they can get from their local utility, which affects what they can deliver to the servers, when scaling is needed."

It's not just about power demands. "Organisations must rethink their networking, because for AI training you need fast networking - hundreds to thousands of servers that need to communicate with each other. All that comes into play with liquid cooling," says Schulman.

So how can AI factories help enterprises unlock gains on a hardware, server and rack and data centre level?

Firstly, simply CIOs must think beyond the server level - instead Schulman says organisations must think at the rack level.

"The rack is the new server," he says. "Rather than having 'one of these' and 'one of these' and trying to hook them up and figure it out themselves, it's much more efficient to buy a rack of servers at a time and think of that as a unit. It's a little different, but companies like Supermicro and others can do that efficiently now."

Indeed, components created by Supermicro and Nvidia combine to create comprehensive AI solutions for businesses.

Says Schulman: "It's better for the customer because if you get a rack full of stuff that's already been tested with the application, you just have to plug in the power, the network, the cooling system and you're ready to go. It's much more efficient and for time to production, you have it all tested by an experienced vendor, rather than trying to do this yourself."

"Again, you can buy a car that's ready to go, or you can go buying the tires and the seats and everything else and hope it all works together."

## Liquid cooling technology

At a rack and data centre level, liquid-cooling technology is essential for optimising AI hardware performance and reducing total cost of ownership (TCO).

Research suggests that more than a third of enterprises (38.3%) expect to employ some form of liquid cooling infrastructure in their data centres by



## How CIOs can make the case for infrastructure investment

Proper planning, long-term strategies that align with wider business goals and customised solutions are all vital for the successful adoption of AI within enterprises. However, unlocking the necessary investment requires CIOs to make a compelling case to the wider boardroom.

It is down to the CIO to highlight the enterprise benefits that can be driven by investing in innovative IT infrastructure such as advanced chips, GPU racks and liquid cooling. They must make the case for investment clear to their boards and C-suite colleagues and stress factors like total cost of ownership (TCO) and the return on investment (ROI). Some are simple to demonstrate - the significant reduction in electricity costs thanks to liquid cooling, for example.

But importantly, CIOs must be able to translate the technology into business outcomes, such as enhancing customer experience, improving operational efficiency and the capacity to do more, enabling better decision-making and ensuring sustainable growth.

"In the bigger picture, what does an organisation want to do? What do they need to become successful? How do they look successful to the CEO? Then you have to measure the results of the AI implementation. How many minutes does it save a day? Or processes does it eliminate? There's a whole range of things," says Schulman.

Crucially, every enterprise needs an AI champion. Someone who will make the case for investment and be able to lay out every aspect of the build, from the power and cooling requirements to server types - and understand what they need to deliver. This is all built into the costs behind the AI factory.

As part of this, businesses must consider whether it makes sense to pay a team of five people for three months to get the right environment in place when it may make more sense to partner with a specialist that can undertake the heavy lifting and help drive greater time and cost savings?

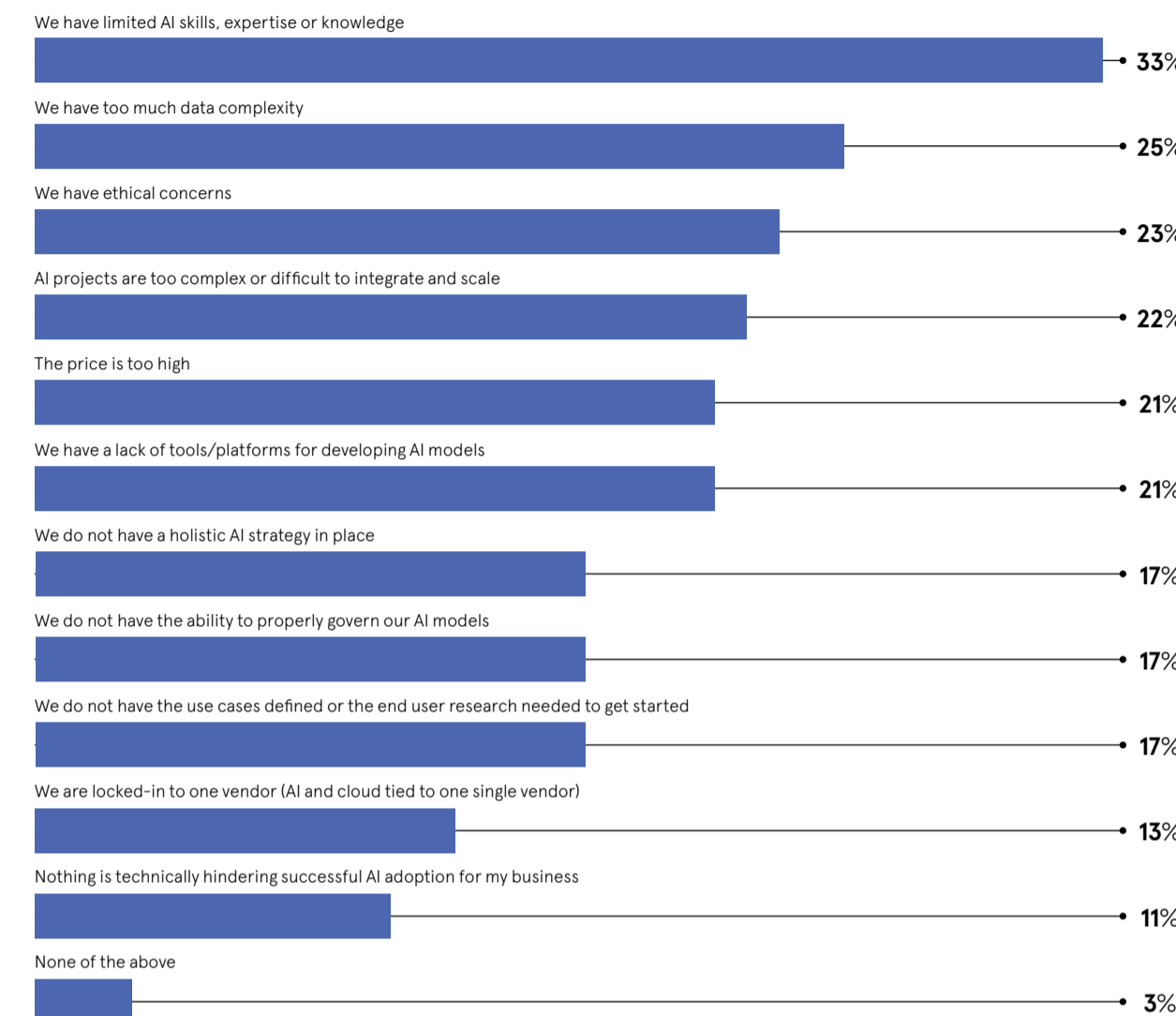
Says Schulman: "How am I going to do this the easiest way? How am I going to get up and running as quickly as possible? If it takes me a year to get my data centre array, maybe that's too long compared to my competitors. So, what are my competitors doing and how do I get this whole data centre for AI up and running as quickly as possible?"

At its core, investing in an AI factory is about accelerating transformation, so you can start realising those benefits - such as operational efficiencies and better smoother customer service - much faster. And with time to production an important consideration, working with a third party could see you gain a significant advantage over the competition during this era of rapid transformation.

“Crucially, every enterprise needs an AI champion. Someone who will make the case for investment and be able to lay out every aspect of the build

## THERE ARE MANY BARRIERS TO THE SUCCESSFUL ADOPTION OF AI IN GLOBAL BUSINESSES - YET THE MAJORITY COULD BE NAVIGATED WITH ACCESS TO THE RIGHT SPECIALIST EXPERTISE AND PARTNERS

Barriers that hinder the successful adoption of AI among IT professionals at companies currently exploring or deploying AI



IBM, 2023

2026, up from just 20.1% as of early 2024. That's because air-cooling has its limits - it's inefficient and incapable when servers are running at higher temperatures.

Servers that are application optimised for AI, high-performance computing (HPC) and analytics require the latest in CPU and GPU technologies, which run hotter than previous generations. Multiple CPUs and GPUs per server are needed for performance intensive computing, driving up the electricity demands for the server as well as at the rack level. AI factories and HPC centres need to be designed for servers to work constantly, 24x7x365. This reduces the TCO but does require consideration of cooling technologies. Supermicro works closely with a number of its technology partners, and brings to market entire clusters powered by a number of Nvidia technologies.

"Liquid cooling is going to be required, because of the progression of CPUs and GPUs - they're getting so hot, that it must be planned in advance. You can't just turn up the air conditioning," says Schulman.

The good news is that liquid cooling solutions can reduce OPEX spending by up to 40%, and allow data centres to run more efficiently with lower power-usage effectiveness (PUE), enabling data centre operators to deploy the latest and highest performance CPUs and GPUs for AI workloads and HPC.

"Our simulations show the cost is extremely minor for a liquid-cooled data centre compared to an air-cooled data centre, based on various construction models. Then over time, there's a significant savings in OPEX because there's less money being sent to the public utility for electricity. And that's reflected in PUE, in how efficient the data centre is. So, all of this needs to be thought about for your AI factory," adds Schulman.

## Creating an AI factory roadmap

So how should organisations be thinking about their approach to innovative IT infrastructure as innovation demands ever more energy and processing power? And what might an implementation and adoption roadmap for an AI factory look like?

Some organisations might want to start small but have the infrastructure ready to scale up. CIOs must consider their SLAs - what are they promising users in terms of response times? Are you envisioning the best response time requiring multiple high-end servers, or could you go with fewer and save power? These are some of the trade-offs that businesses need to weigh up.

The technology within AI factories can also help shape an organisation's implementation roadmap. For example, by using liquid cooling, businesses use less power. By not paying as much for power, they can invest in more hardware within

the same power budget, helping to maximise investment.

"Different organisations are going to want to go different ways once they start to figure out the economics; there are choices all around with this new era of AI," says Schulman.

Ultimately, says Schulman, organisations need to have a clear understanding of how AI can benefit their business, before thinking about the infrastructure to support those plans.

"This is not about running 80 billion model parameters like ChatGPT; it's about how the enterprise is looking at AI to improve their business," he says. "How do enterprises move their business forward and make more money using AI and what do they have to think about to get started? Then you can figure out the AI factory piece."

For more information please visit [supermicro.com/ai](https://www.supermicro.com/ai)





## THE BIG DEBATE

# Should businesses hold back on AI adoption?

The rush to roll out AI is backfiring on some businesses, with projects failing to deliver the desired results. Is it time for a more measured approach?

Sam Birchall

AI adoption has become synonymous with progress and innovation. Just over half (59%) of companies surveyed in IBM's 2024 *Global AI Adoption Index* are exploring or deploying AI and plan to accelerate their investments. But in their eagerness to embrace the new technology, some businesses' AI projects are ending in failure.

McDonald's recently decided to abandon its AI drive-through trials after videos of mistaken food orders went viral, including a customer receiving ice cream topped with bacon and another getting £166 worth of unwanted chicken nuggets. The fast food giant, which has been testing voice recognition technology to process orders since 2021, will remove its AI system by the end of August.

In February, Air Canada had to compensate a customer after its chatbot misinformed him about the company's refund policy. A small claims court agreed with his claim that the AI assistant had falsely assured him that he could secure a discounted air fare.

Such mishaps are costly and can tarnish a company's reputation. Some believe they signal the need for a more measured approach to AI deployment to ensure these strategies are sustainable and evolve with business needs. Others argue that firms cannot afford to sit idly and should accept failure as an important and sometimes unavoidable part of the experimentation process.

Some believe they signal the need for a more measured approach to AI deployment to ensure these strategies are sustainable and evolve with business needs. Others argue that firms cannot afford to sit idly and should accept failure as an important and sometimes unavoidable part of the experimentation process.

## The Believer

Chris Carreiro  
CTO, Park Place Technologies

In the haste to implement AI tools, organisations often grapple with increased hardware requirements and ballooning cloud costs. The need for more capacity and speed can escalate quickly, leading to high usage costs.

But financial strain is not the only potential drawback of rushed AI deployment. A hurried approach can result in misaligned use cases, unclear objectives and poorly defined timelines. These missteps can derail even the most promising AI projects from the start.

Rushing to the finish line without adequately preparing end users can also hinder adoption success. Without clear communication about the value of the technology and robust training, users may struggle to leverage the AI solution effectively, leading to underutilisation and potential failure of the initiative.

In the race to integrate AI, slow and steady is a strategy that allows organisations to scale their tech infrastructure at a sustainable pace,

effectively managing costs and avoiding unnecessary upgrades.

Choosing the right use cases from the start requires careful thought and planning. A clear objective, return on investment and timeline can only be established with a measured approach. Rushing this process can lead to misaligned projects that veer off course.

The starting point of AI integration is just as important as the finish line. A measured approach provides ample time to articulate the value proposition to end users, ensuring they receive comprehensive training and consistent reinforcement. This paves the way for successful adoption and utilisation of the AI solution.

A measured approach to AI isn't just smart, it's also strategic. It will likely result in improved operational efficiency and strategic growth. It also ensures a perfect blend of old and new skills within IT teams, keeping companies ahead of customer needs and increasing loyalty.



Beyond these immediate benefits, a paced approach to AI integration helps to foster a culture of continuous learning and adaptation. As AI evolves, so must our understanding of the technology. By not rushing into an AI-driven future, we create space for thought leadership, innovative problem-solving and the development of strategies that stand the test of time. That's the real power of patience in AI integration.

“Rushing to the finish line without adequately preparing end users can hinder adoption success”

## The Doubter

Catherine Wilks  
Client partner, Slalom

AI isn't just a buzzword or a trend. It has produced real, tangible benefits, including productivity, growth and innovation. But there's no reward without risk.

Businesses are not moving fast enough to implement this technology, which means they're losing out

on the benefits and risk being outpaced by competitors. And, in a tight labour market, ignoring the AI hype can hamper an organisation's ability to recruit and retain talent.

There are, of course, risks that AI will be used by bad actors. For sectors such as banking, where there's been scaremongering around AI and fraud, the only way to fight increasingly sophisticated cybercrime is to leverage those very same AI tools and technologies.

By its very nature, AI is designed to learn and improve. The more people are using AI, the smarter the tech gets. Businesses must begin experimenting, prompting and better understanding this innovative technology now. The more we use AI, the smarter it will get and the greater an impact it will have.

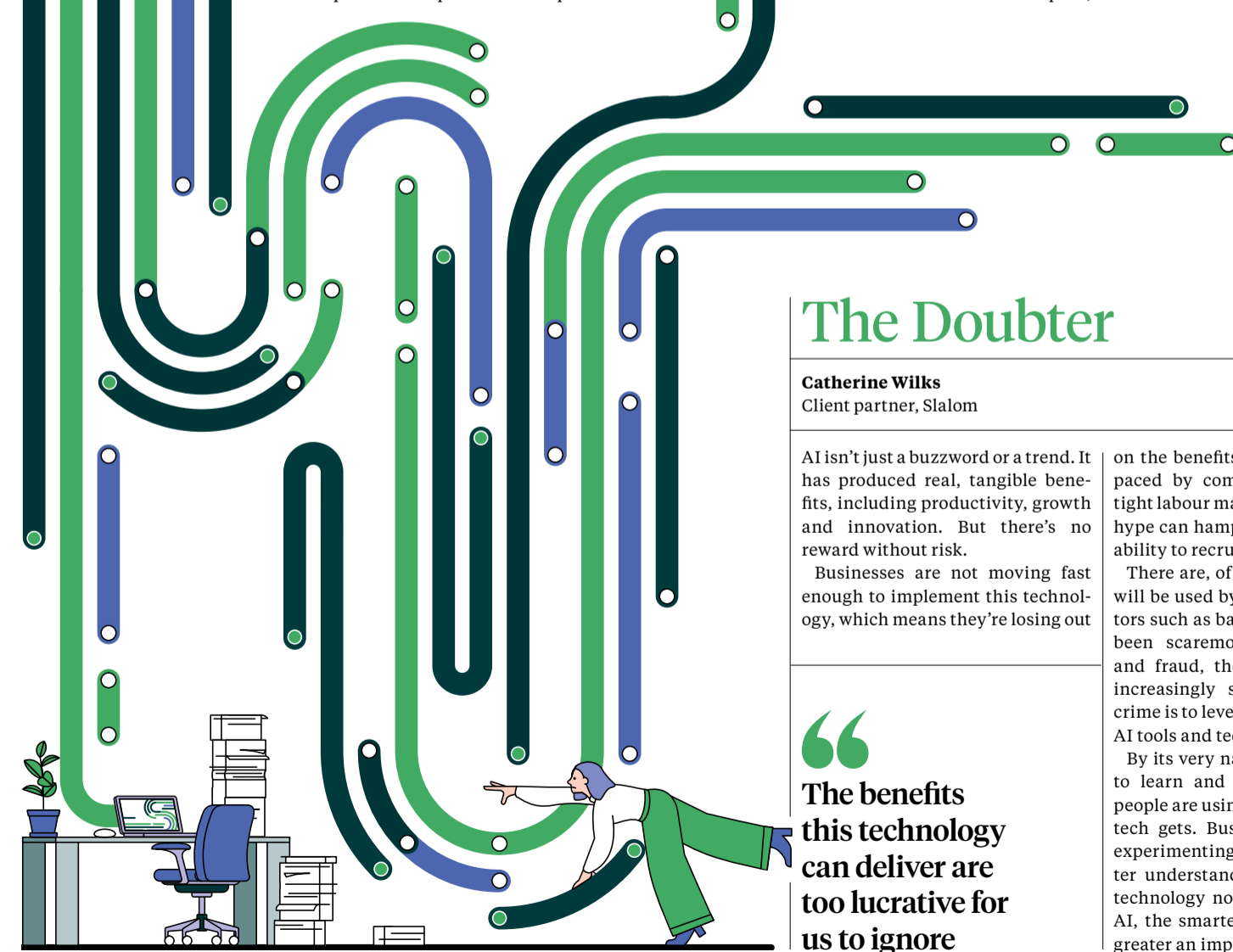
Although I encourage organisations to embrace AI, that does not mean business leaders can ignore safeguards for their workforce and company. This includes creating the right culture, providing open communication and upskilling employees. These are important for helping staff to use AI effectively.

To make the greatest impact, businesses should be placing AI at the very heart of their transformation strategy, not merely using it as a 'proof of concept' or to address individual challenges.

The reality is that AI will be used for both good and bad. The negative consequences are likely to occur whether businesses decide to experiment with AI or not. But the benefits this technology can deliver are too lucrative for us to ignore. ●



“The benefits this technology can deliver are too lucrative for us to ignore”



# From AI to ROI: it's time to build an innovation-ready enterprise

To successfully deploy and scale AI, firms need to understand the full scope of opportunities – and challenges – that lie ahead

The meteoric rise of GenAI has ushered in a new age of disruptive innovation. Just eighteen months after ChatGPT blazed a trail for the technology, thousands of businesses are now using it to unlock fresh insights, automate mundane tasks and create new content. Even firms that haven't yet embraced AI can't deny its impact: we are clearly on the cusp of a technological shift that will rival – and potentially exceed – the introduction of the internet or mobile devices.

"You can't ignore it," says Steven Huels, general manager of the AI business unit at Red Hat, a leading provider of enterprise open-source solutions. "It's not going to go away. It's going to have far-reaching impacts on your business, your competitive nature, etc."

Indeed, Gartner estimates that 85% of enterprises will have used GenAI application programming interfaces (APIs) or deployed GenAI-enabled applications by 2026. Nevertheless, many organisations are struggling to get projects into production quickly – and crucially cost-effectively.

Often that's because they lack the talent, partners or tools to successfully enhance their applications with AI. The lack of alignment between rapidly evolving tools can lower productivity and complicate collaboration between data scientists, software developers and IT operations, for instance. Complex administrative processes may further undermine efforts to scale AI deployments.

While popular cloud platforms seem to offer the scalability and attractive toolsets enterprises need, they often come with a significant degree of user lock-in, which can limit architectural and deployment options. To achieve the kind of scale that will deliver real value, companies also need to ensure repeatable and consistent handoffs between model developers, application developers and operations, along with effective AI lifecycle management.

"If you're building an enterprise application, that code is managed, it has a lifecycle – there's a roadmap for how it grows and how it impacts your business," says Huels. "[It's] the same philosophy for enterprise AI."

### Finding the right approach

Given how quickly the AI landscape is evolving, it's perhaps not surprising that many enterprises are still figuring out how to deploy and scale the technology. Fine-tuning a foundation model with company data once

seemed like the best approach, for example. But considerable funds, time and data expertise are needed to achieve this – something many organisations lack.

Although fine-tuning is often very effective when it comes to meeting a specific AI use case, Retrieval augmented generation (RAG), which enhances the accuracy and reliability of generative AI models with facts drawn from an external knowledge base, allows enterprises to incorporate data into a pre-trained model in a faster and more cost-effective way.

"Every customer has a knowledge base," says Huels. "Whether it's a product knowledge base, a customer knowledge base, a support knowledge base – they have this readily available. With RAG they don't have to burn their data into the model, so it gives them the ability to try different models as they are emerging and swap them out."

Regardless of which approach they adopt, the fast-moving nature of AI means that enterprises will still need to make some speculative bets on emerging tools, partners and technologies in this space. "Some [bets] will pay off, some won't," says Huels. "But underneath that you need a core platform that allows you to make those bets without compromising your entire data centre and AI strategy."

Red Hat's OpenShift AI is designed to be that core platform. It provides organisations with an environment and set of tools to create AI applications for unique use cases and deploy them at scale across hybrid cloud environments. IT, data science and development teams can quickly access core AI libraries and frameworks and collaborate with ease, for example, helping to simplify projects and accelerate timelines.

OpenShift AI also provides IT operations with a security-focused platform that is simple to monitor and manage. The modular, open-source nature of the platform stands in contrast to the more prescriptive AI suites available from the big cloud providers too. And it can easily be extended with partner tools that will further enhance AI development and deployment.

"You get consistency in deployment, but you're giving your end users a lot of choice in which tools they can use," Huels explains. "So, if... your developers prefer a no-code/low-code model development environment, [for example], you can plug that into our platform."



“The fast-moving nature of AI means that enterprises will need to make some speculative bets on emerging tools, partners and technologies”

### Open-source innovation

This should set enterprises up for a future where GenAI models are integrated into ever more applications and environments. "You're going to see increasing advancements on making these generative AI models smaller, more accessible, [and] able to run in environments that don't require extensive capital outlays," says Huels.

Many of the innovations that drive this shift will be open source. "There's no denying the role open source plays not just in the model side, but the framework side, the development side," says Huels. "It is going to be the key driver of AI innovation going forward."

The open-source community is also likely to play a key role in the development of AI standards too. "The reason Enterprise Linux did so well was because a lot of it was built in the open," says Huels. "You had multiple eyes from varying backgrounds looking at the same sets of code, making sure things were operating the way they were supposed to – [that] they were optimised, they were secure. You're starting to see that more with open model development."

Regulations around AI are also likely to increase in future, though hopefully against a backdrop of better public understanding of the power and limitations of the technology. Ultimately, says

Huels, "We want that innovation to still occur, but we want it to occur in a way that [means] we have confidence that [AI] is still acting in our best interest and not against us."

No matter what the future holds though, platforms like OpenShift AI will clearly play a vital role in helping organisations to deploy and scale the technology at pace. In fact, says Huels, "Enterprises who refuse to adopt AI are going to find themselves in a spot where it's really hard for them to compete against companies who are taking advantage of it."

For more information please visit [redhat.com](https://redhat.com)





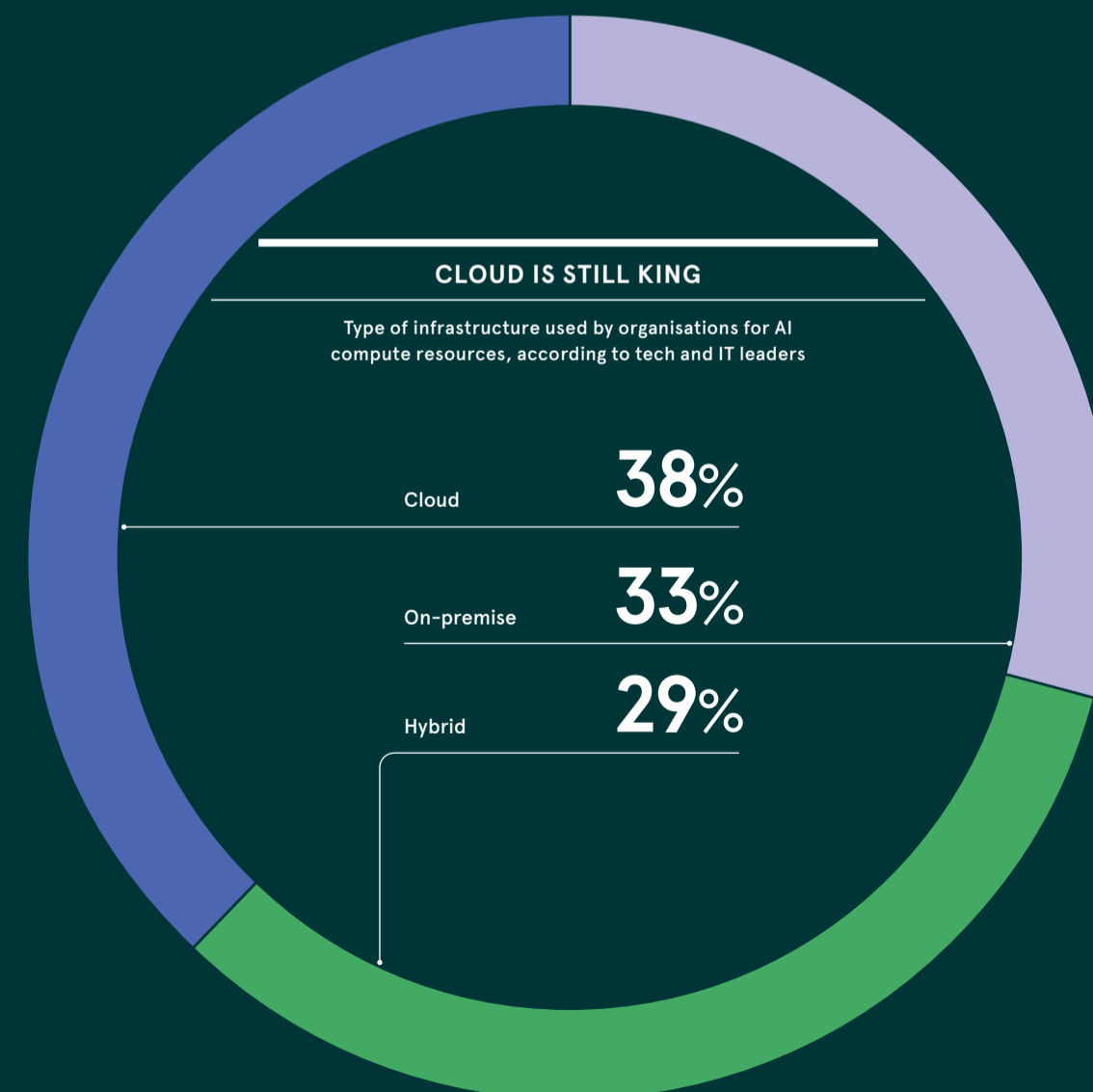
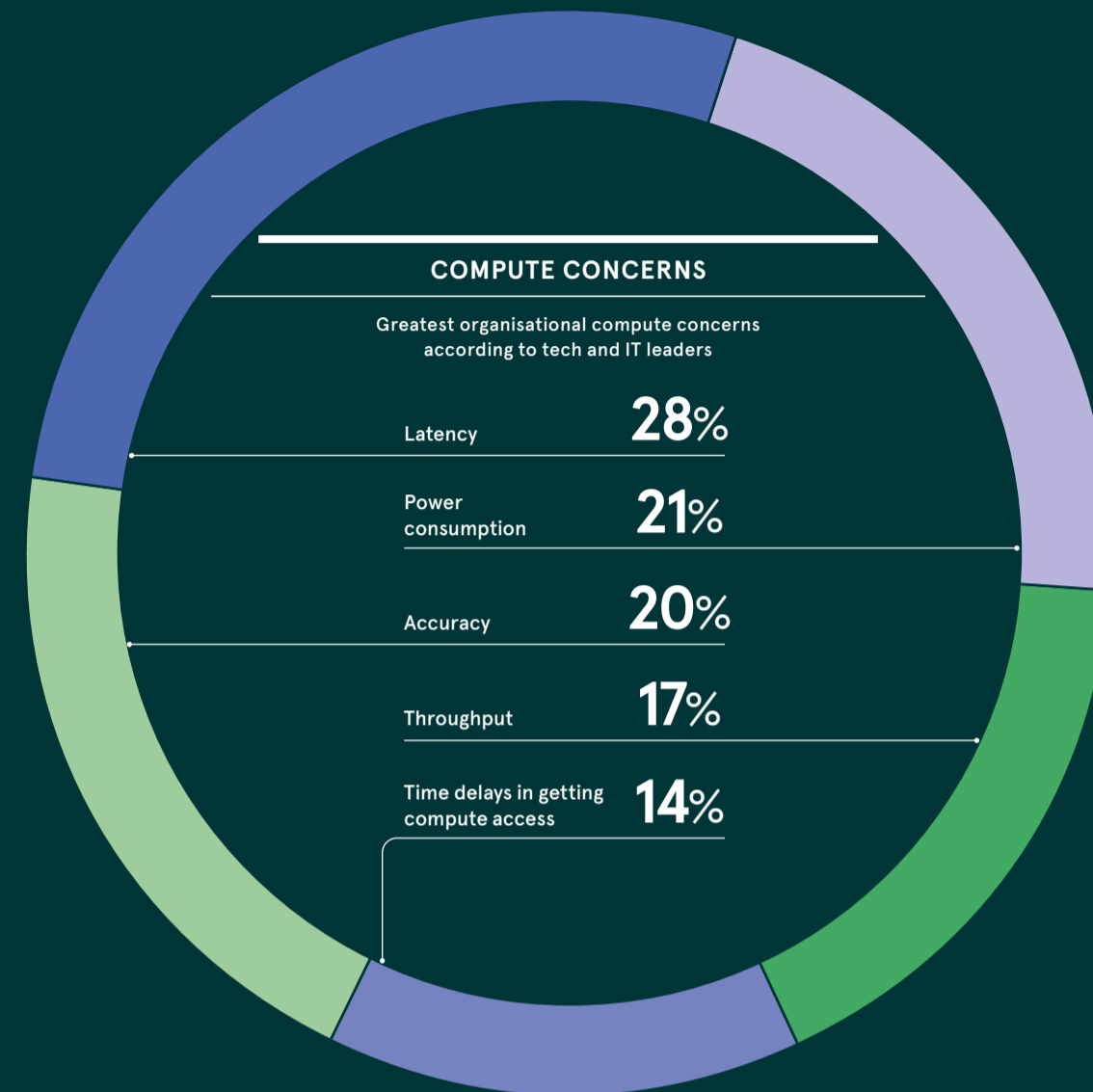
# SUPPORTING AI AT SCALE

Although some firms have leveraged AI tools in ways that are reliable and produce measurable benefits, full integration of AI has been limited even at the most innovative companies. Tech leaders argue that businesses must scale up the adoption of the technology to reap its transformational benefits. But this requires significant support infrastructure. Compute resources are not infinite, higher energy consumption raises financial and environmental concerns and technical talent is scarce.

AI Infrastructure Alliance, ClearML, FuriosaAI, 2024

## COMPUTE LIMITATIONS AND INFRASTRUCTURE ARE THE GREATEST CHALLENGES TO SCALING UP AI

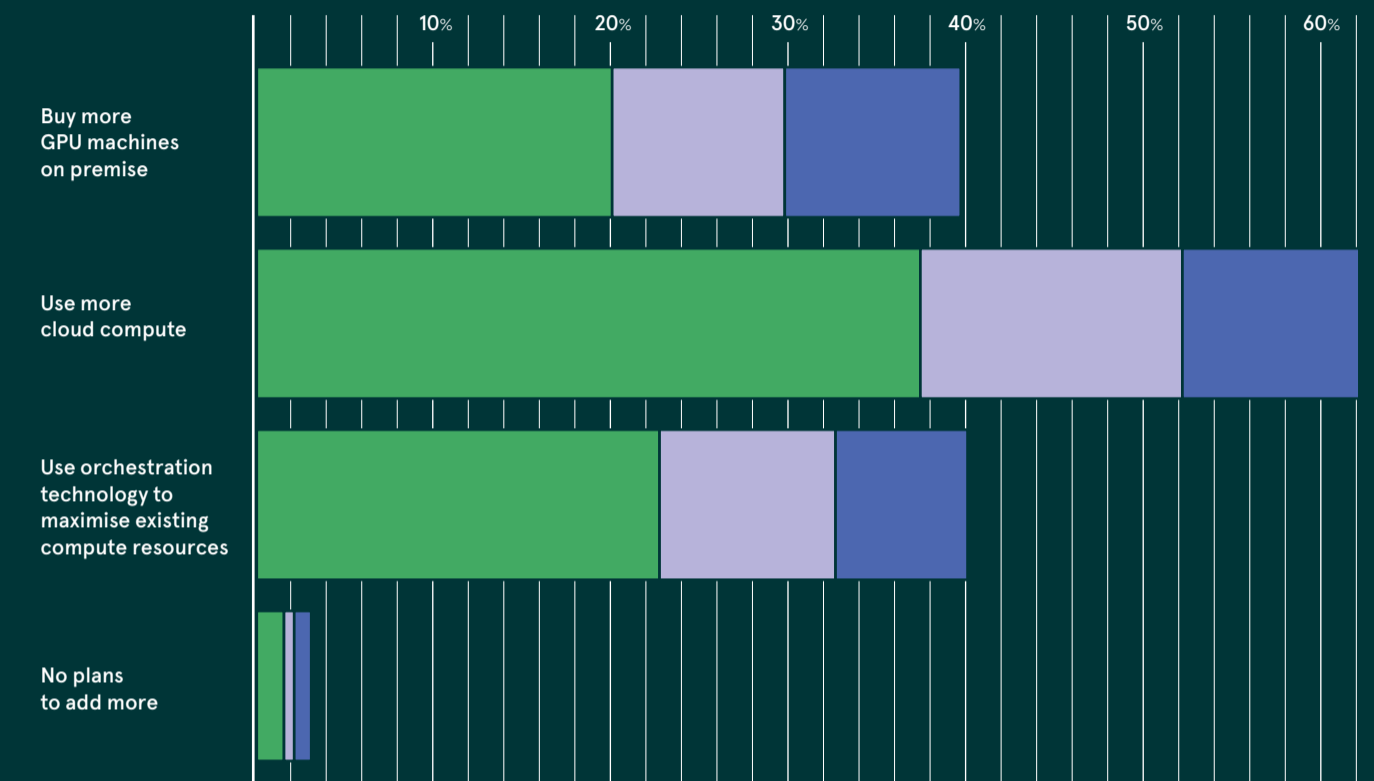
Tech and IT leaders' ranking of the biggest challenges in scaling up AI implementation at their organisation



## HOW DO FIRMS PLAN TO ADDRESS THEIR AI INFRASTRUCTURE NEEDS?

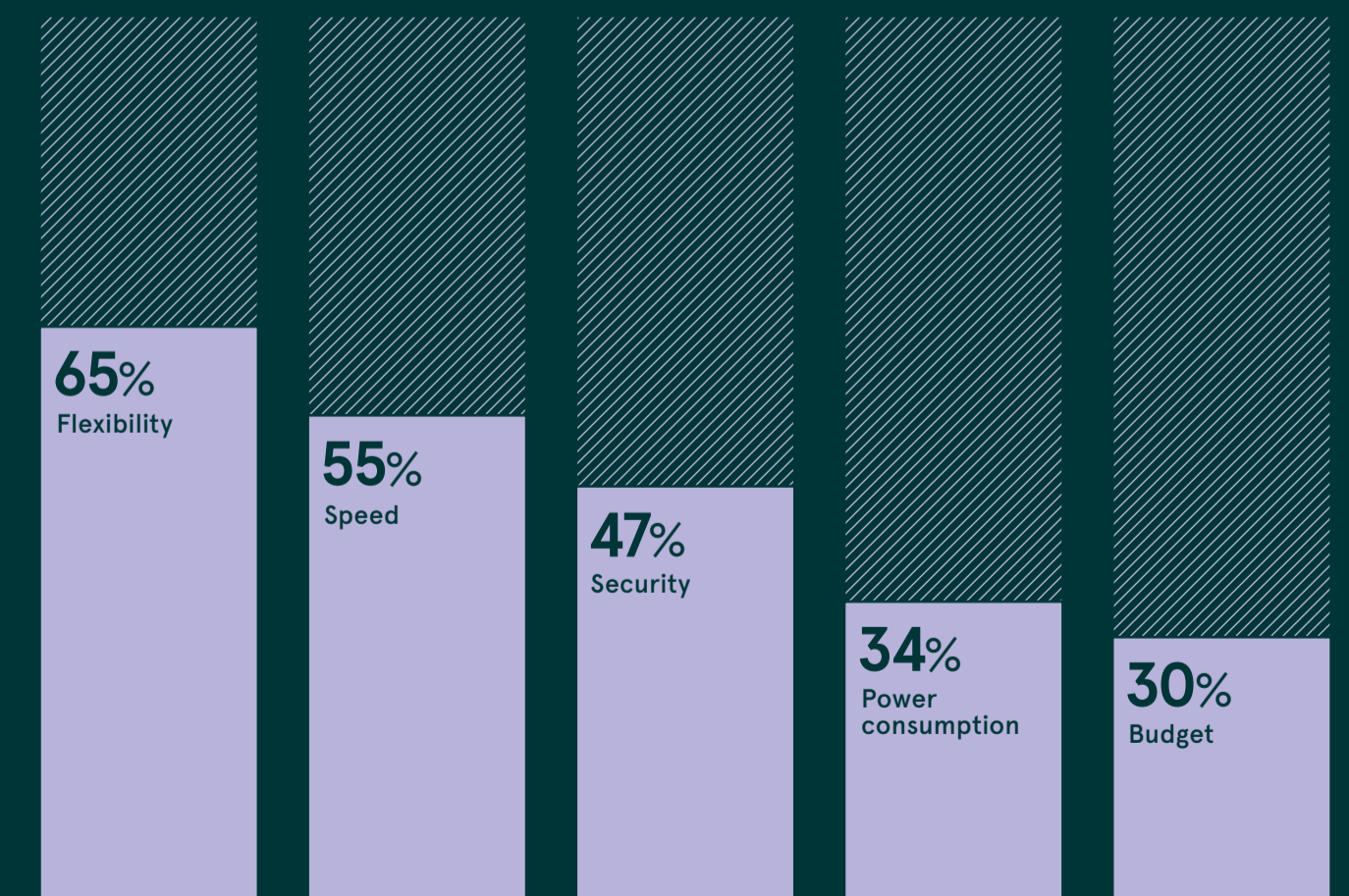
Plans for expanding AI compute infrastructure in 2024, according to tech and IT leaders, by company size

500-2,000 employees | 2,001-10,000 employees | 10,000+ employees



## WHEN IT COMES TO SUPPLEMENTING COMPUTE INFRASTRUCTURE, FLEXIBILITY IS KEY

Tech and IT leaders' key considerations in expanding compute infrastructure







GOVERNANCE

# Mind the AI governance gap

A gap has emerged between organisations' speedy implementation of AI and their ability to address the special governance concerns posed by the technology

Nick Easen

Many businesses have embraced AI, keen to exploit the potential of the powerful and affordable tools. But for too many, governance has become an afterthought in the scramble to deploy the technology. It's easy to see the attraction of the pervasive, rapidly developing plug-and-play tools, powered by customer data and intellectual property. However, a gap has emerged between organisations'

speedy implementation of AI and their ability to address the special governance concerns that arise. The use of AI exposes businesses to unique risks and therefore demands close scrutiny and careful due diligence. It not only has the ability to expose private information and infringe IP rights, but there are also challenges over bias and ethics, cybersecurity for AI, and corporate governance practices at external AI vendors.

It doesn't help that there's no universal blueprint for AI governance. The EU AI Act mainly tempers riskier forms of the tech, while a fragmented set of regulations globally means businesses face many questions when it comes to putting the right guardrails in place. It's no wonder that the AI governance gap is one of the top risks threatening business growth in 2024, according to KPMG.

Antonis Patrikios, privacy, cyber and AI partner at global law firm Dentons, likens the AI governance challenge to "GDPR on steroids". However, GDPR – the EU's General Data Protection Regulation – primarily concerns the chief data officer and IT departments. AI governance is an ecosystem challenge, requiring input from teams such as procurement, legal and information security. But many businesses aren't taking a joined-up approach.

Because the risk landscape is so varied, the chances are high that things will fall between the gaps, says Steve Wright, CEO of IT consultancy Privacy Culture.

"Many teams still work in silos. IT teams often don't work hand in glove with the person involved with AI governance," he explains.

**“The core challenge for businesses is that AI policies, protocols and contracts can quickly become outdated as standards rapidly evolve**

Although there are some resource-rich organisations that have been particularly proactive about AI governance, most firms will have to settle for a wait-and-see approach, Wright says. "While GDPR, for instance, had an end date for compliance, this is not the case with AI so far."

At this stage in the evolution of AI, companies must take the initiative to safeguard their AI tools, rather than rely on global governance structures. Closing the AI governance gap for organisations means creating a framework around two elements: one external and one internal.

The external element involves scrutinising third-party providers. It is essential for businesses to ask the right questions about AI accountability at the outset of any contract with vendors.

Corporations increasingly want to utilise private instances of a large language model in the cloud. They want to know where that cloud infrastructure is located and to use retrieval augmented generation systems – where company data sits outside of the training sources – so businesses don't share vast tranches of raw data with the LLM itself. Moreover, they want a human in the loop for quality assurance.

As for the internal component, firms should focus on ensuring top-notch data management systems, since AI data input is one of the most significant factors that businesses can control. Strong internal AI governance also means considering privacy by design, mapping AI systems in use and implementing robust ethical guidelines.

A proactive approach to AI governance is vital. "The core challenge for businesses is that AI policies, protocols and contracts can quickly become outdated as technology, regulations and market standards rapidly evolve," notes Alexander Amato-Craverio, a director of emerging technology at law firm Herbert Smith Freehills.

With so many moving parts in AI governance, how can organisations gauge success? There are a number of frameworks being developed around the world.

Businesses can expect more from the European Commission. When the EU AI Act was formulated, EU technocrats had a future conformity assessment or CE mark in mind, similar to a BSI kitemark for AI.

Wright thinks a European roadmap, which organisations can test against, is likely coming in the near term. The question, he says, is whether the UK should follow suit.

"The concept of a conformity assessment that will rubber-stamp

AI before it's released to the mass market, like a physical product approval for consumer goods, is a good idea," he adds.

An AI kitemark would help businesses bridge the internal AI governance gap. Many organisations are struggling to work out the bare minimum of resources needed within their organisation to account for responsible use of the technology.

The UK's Information Commissioner's Office has an AI risk assessment tool to help in this process. Many businesses also use the US National Institute of Standards and Technology AI Risk Management Framework and the OECD's responsible AI governance framework.

Patrikios says one of the biggest issues with filling the AI governance gap is that there aren't enough trained people for technical roles in data and security, among others.

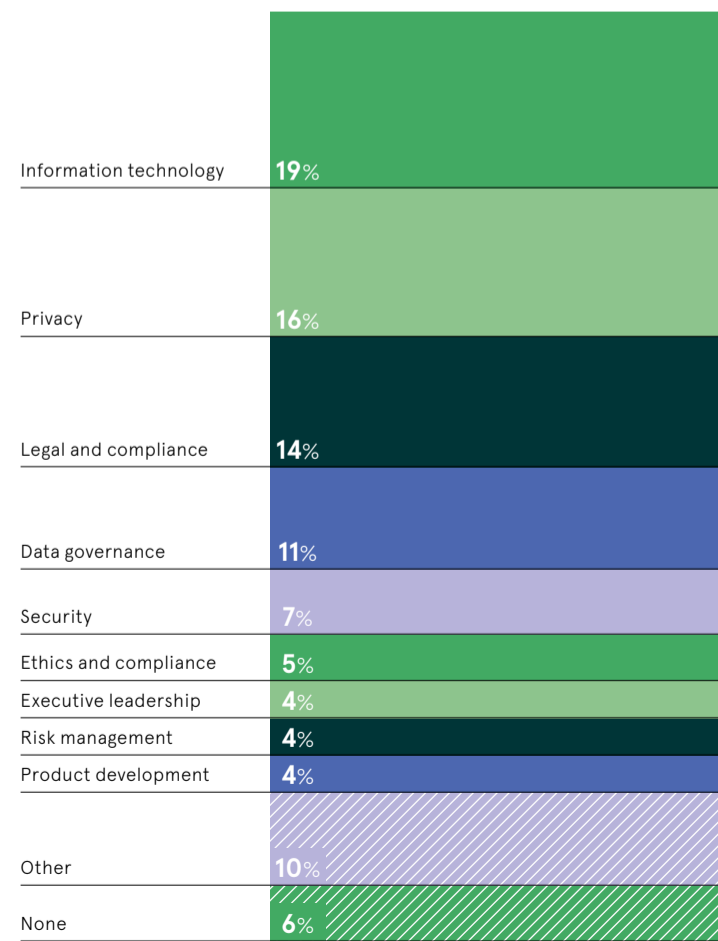
"The talent shortage right now is similar to the lack of data protection officers that occurred around 2016, two years before the GDPR came into force," he explains, adding that some organisations, such as the International Association of Privacy Professionals (IAPP), are training people on AI governance. Patrikios is one of the IAPP's AI trainers.

There are also calls for a C-suite role for AI specialists. Chief AI officers could champion strong governance, secure budgets and deal with internal and external accountability. Their remit would cover the highly technical aspects of AI, as well as the legal components, including due diligence and ethics.

Patrikios says many companies have started extending the remit of existing roles such as chief privacy officers to cover AI governance.

## WHO'S IN CHARGE OF AI GOVERNANCE?

Business functions tasked with primary AI governance responsibilities worldwide



International Association of Privacy Professionals, EY, 2023

**“Many teams still work in silos. IT often doesn't work hand in glove with the person involved with AI governance**

There are parallels in history when it comes to dealing with governance gaps. Whether it's the advent of the internet, cloud computing or the collection of personal data, eventually the law and regulation catch up with tech advances.

However, in each of these cases, standards and guidelines were not determined by big tech or governments alone. They emerged as the result of collaboration between public and private sector actors. Patrikios argues that filling the AI governance gap will require a similar collaborative effort.

Thankfully, guidelines on responsible AI are not being handed down from big tech companies alone. There are many industry forums weighing in on the issue and regulators around the world are starting to devise formal frameworks.

"What we must be doing is upskilling and using the power of the network when it comes to filling the AI governance gap. We need to be talking to our peers and our partners about this issue. It's essential to know what market practice looks like," concludes Patrikios. ●

# How generative AI can attract the next generation of lawyers

The legal industry faces a hiring crisis but generative AI can offer innovative solutions. Law firms must embrace technology to save time, attract talent and avoid being left behind

Law firms are often seen as archaic organisations that can be reluctant to embrace new ways of working, expecting junior employees to put in long hours and perform repetitive tasks.

This perception has made it harder to recruit new talent, with firms continuously raising salaries for newly qualified lawyers to attract the best graduates. "Tech-savvy talent seeking more flexible work have also historically been put off a career in law," says Karen Waldron, director of product development at LexisNexis UK.

Yet that perception is starting to change. With the advent of generative AI tools, today's generation of lawyers have more ways to enjoy a legal career without following the traditional partner track.

Firms that embrace technology and innovation now offer dynamic roles in automation, project management and AI solution development, as well as the practice of law," says Waldron. "By leveraging generative AI legal platforms, innovative firms can reposition themselves as attractive employers."

Law firms are increasingly more willing to encourage the use of AI tools. According to a LexisNexis study, the number of legal professionals using generative AI more than doubled between July 2023 and January 2024, jumping from 11% to 26%.

Enthusiasm is driven by the fact that AI allows lawyers to shift their focus to strategic, high-value work, boosting their productivity while improving the client experience.

"This also enables organic growth through improved reputation and means that lawyers can have the space to attract and serve more clients," Waldron says.

In this new world, lawyers have more time for professional development activities, such as gaining deeper expertise in specific practice areas or honing sharper tech skills by working with AI.

AI is likely to change the landscape for junior associates and trainee lawyers, Waldron says. "Generative AI can enhance the training and progression



of younger lawyers by helping them learn and get up to speed faster, especially when it comes to legal research and drafting documents," she says.

AI also has the potential to provide wider benefits such as personalised learning experiences and support for career development and AI-powered knowledge management systems.

While the uptake of AI may change a lawyer's scope of work, it is highly unlikely to replace lawyers entirely. The legal profession relies on human skills that cannot be replicated by machines. "Young lawyers must continue to prioritise developing and building their critical thinking, emotional intelligence and problem-solving skills. This will ensure the next generation of lawyers have well-rounded competencies including technical capabilities and fundamental legal and ethical principles," Waldron says.

Generative AI can also help to improve work-life balance by streamlining time-consuming tasks. Not only can that help free up mental capacity, it enables better time management. However, firms must be cautious when adopting generative AI tools and ensure lawyers understand the potential challenges this technology could create.

"Successful implementation requires planning, training and ethical considerations regarding risks like bias and hallucination, so it is important that services take steps to reduce these risks," says Waldron. "Taking a balanced approach to leveraging human expertise and generative AI legal platforms will provide the best outcomes for a great work-life balance and professional excellence."

**“Embracing generative AI frees up valuable time for high-impact legal work**

LexisNexis is supporting law firms through this process with its new generative AI tool Lexis+ AI, which combines its exclusive, leading legal content with its proprietary search technology to create a fast, accurate, generative AI legal platform.

Lexis+ AI gives lawyers access to conversational search, intelligent drafting, case summarisation and rapid document analysis. This helps firms address issues such as information overload, repetitive tasks and lengthy legal research by summarising and synthesising large volumes of information.

"Lexis+ AI establishes trust in generative AI by having its outputs grounded in one of the world's largest leading legal content repositories. We reduce the risk of hallucinations by validating citations to the underlying legal authority and linking directly to the relevant content," Waldron adds.

Generative AI grounded on leading legal content has arrived. Embracing this kind of technology frees up valuable time for high-impact legal work while improving overall productivity. Law firms must realise how generative AI can not only change the current demands of the legal profession but play a key role in attracting and retaining the next generation of lawyers.

For more information please visit [lexisnexis.co.uk](https://www.lexisnexis.co.uk)





## INTERVIEW

# ‘We take it for granted that humans will make the decisions’

**José Esteves**, dean of the Porto Business School, explains why business leaders must adapt their decision-making to generative AI – or risk being replaced by it

Oliver Balch

**W**hen José Esteves talks AI, C-suite leaders sit up and listen. As head of the Porto Business School, he already has their ear. But it's his past as a professional hacker that really commands their attention.

For the first 15 years of his career, Esteves drew on his insider knowledge of the internet's dark side to help governments and businesses to address their cyber-related vulnerabilities – and, occasionally, advise on how they could steal a march on their competitors.

Fast forward 15 years and he's still a sought-after voice in leadership circles. But now executives ask less about cybersecurity basics and more about how to adapt to an increasingly AI-dominated world.

Esteves doesn't downplay the immense changes coming down the track. Nor does he hold back on the unpreparedness of most business leaders, particularly when it comes to decision-making.

“Everyone is talking about automation, but no one is really analysing the impact of AI on decision-making,” he argues. “We take it for granted that human

beings will be the ones making decisions in organisations, but actually it's not so true.”

It's not that business leaders will be stripped of their decision-making roles as organisations come to depend more and more on generative AI (GenAI), he says. The real risk is ignoring the influence that AI exerts – and will increasingly exert – on the decision-making process.

Consider all the data-mining, number-crunching and scenario-planning that leads to ‘option A’ or ‘option B’ arriving before the board. AI's contribution here is no bad thing, Esteves says. While business leaders like to boast of ‘going with their gut’, what is interpreted as bold or instinctive decision-making is often merely a suboptimal response to imperfect information, Esteves maintains.

“Few organisations can provide sufficient levels of analytical information to top leaders, so ‘gut instinct’ was created as a way of surviving. AI can help to create scenarios, assist with planning and enable better foresight,” he states.

In a similarly positive vein, AI can give leaders the kind of unbiased, straight-talking advice that colleagues and consultants are often unwilling to provide. As Esteves points out, AI has no fear of missing out on that must-have promotion or losing a critical contract: it just says “what you need to know” as a leader, not “what you want to hear”.

Esteves describes this aspect of AI as almost an ‘executive coach’ – it's there 24/7 to offer candid and unvarnished insights based on real-time developments. “It's absolutely indifferent to managing the politics within the organisation,” he says.

If that sounds like tough love, think again. AI's status as a machine

“The return on investment cannot be seen in the short term; it's in the knowledge you gain, the culture and the way of working



doesn't prevent it from learning human-like traits such as empathy. Indeed, Esteves argues that the discourse of early generation systems like ChatGPT is in fact very positive and friendly. AI machines also have infinite time to listen, something busy humans all too often lack.

“It's not talked about much, but many leaders feel lonely, especially in times of crisis, because they cannot share what's worrying them or because they are not willing to trust in anyone. With GenAI, people know they are talking to a machine, but they trust it all the same,” he says.

When it comes to people management, however, AI's impact on leadership has a more unsettling edge. Leaders need to get used to the idea of managing a workforce composed of two types of workers: humans and machines.

Clearly, there's an organisational challenge around redeployment: who does what job where? But a shift in mindset is also required, Esteves argues. Leaders can no longer assume that humans are the smartest or even the most creative resource available to them.

Don't expect all employees to be comfortable working alongside machines, he warns, especially if the latter are perceived as bringing greater value. Esteves suggests managers and employees ‘co-create’ a culture where people see AI as a partner rather than a competitor.

“If you put a machine in competition with a human, that person won't be happy about it. But if a human employee feels that the machine is helping them to improve their overall performance and experience, then it's good,” he says.

So how should leaders best prepare? It's tempting to defer any substantive action, Esteves admits. For all the talk about AI's disruptive impact, the dramatic changes to leadership that he envisions are still a few years away, he says.

For Esteves, however, leaders can't start prepping soon enough. “Typically, companies wait for the technology to mature, but that's a mistake. We know from experience that the best companies give their employees time to experiment and understand it.”

The key word here is ‘experiment’. Most advice that crosses business leaders' desks relates to procedural matters: establish an AI policy, set up an AI ethics committee, appoint a chief AI officer, develop an AI strategy and a data strategy to go with it, and so on.

These are all on Esteves' to-do list. However, he says leaders must focus on shifting their mindsets for an AI age, something that will take time.

“Few organisations can provide sufficient information. ‘Gut instinct’ was created as a way of surviving

Learning to be comfortable with experimentation is key. It's an insight drawn from his hacking days. In the face of a new system, Esteves says hackers always start with an exploratory phase, looking for weak spots and testing possible avenues for attack.

“By experimenting, you're going to start perceiving the potential impact of AI. The return on investment is not in sales and cannot be seen in the short term: it's in the knowledge you gain, the culture and the way of working,” he argues.

Courage is a related aspect of the hacker mindset. Many leaders are really managers rather than true leaders, says Esteves, hence the importance placed on adapting to the slowly changing status quo rather than uprooting it altogether. In an AI age, in contrast, leaders must be brave enough to follow where their curiosity leads them and “do things in totally new ways”.

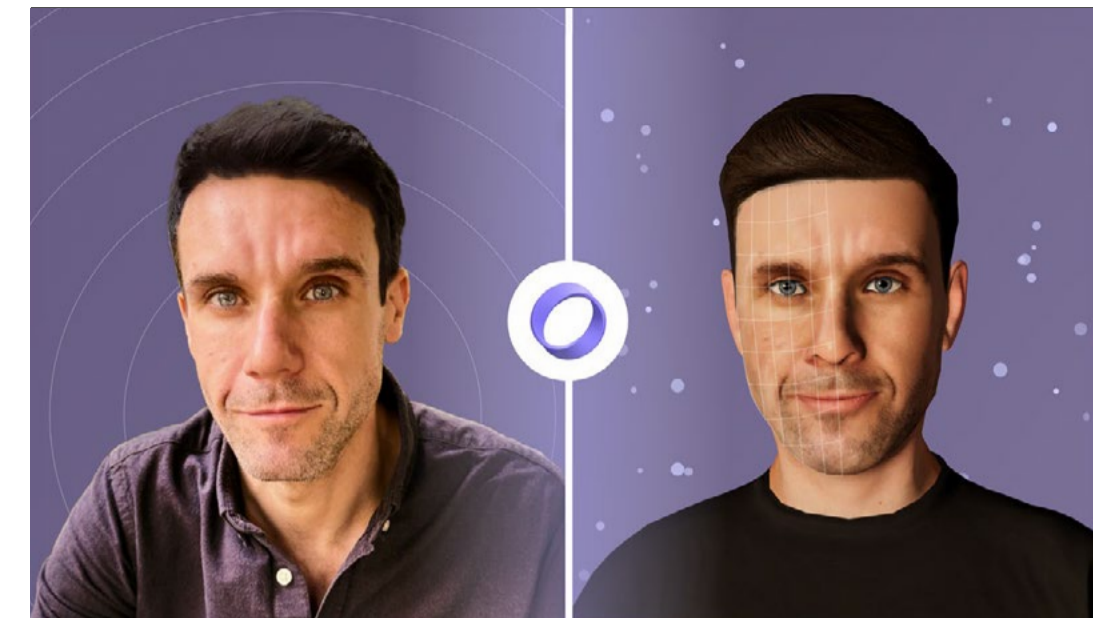
Another key step revolves around radical collaboration. This is the only viable route to competitive advantage, Esteves reasons. His logic is simple: most companies lack the resources required to develop sophisticated AI solutions themselves, relying instead on a very similar core set of AI technologies, which reduces their distinctive edge. Only by collaborating with others can they hope to break out and contextualise AI tools to their market realities.

“The question many executives ask me is, ‘If everyone is going to use OpenAI, how can I use AI to compete with other companies?’. I see a great potential in select banks or marketing agencies, say, creating industry-specific AI solutions for their domain.”

Leaders shouldn't fear AI, Esteves insists. Yes, their roles will change, but for the better: they will spend less time managing the day-to-day and more exploring the exciting ‘what ifs’ of tomorrow.

Could AI become the chief executive? Is that too far-fetched? Not necessarily, says Esteves. “It could, yes, especially if humans don't change the way they lead.”

## Commercial feature



## How businesses are raising the bar with AI avatars

Simple yet powerful AI avatars will enable businesses to cut through in an intensely competitive market

**T**he way businesses interact with their customers online has changed radically since the days of basic chatbots. Today's virtual assistants perform a growing array of automated tasks, while offering increasingly sophisticated and hyper-personalised support that boosts customer engagement and loyalty.

AI avatars represent the next stage in this journey, promising an even more dynamic, intuitive and human-like way to engage with users globally. Trained on the large volumes of internal data within a business and using the latest large language models (LLMs), these advanced digital “personas” are more relatable and empathetic than AI chatbots. This enables a more human-led and empathetic communication that mimics human speech, reflecting personality traits while picking up on cues and anticipating customer needs.

In turn, AI avatars are uniquely positioned to elevate an organisation's public-facing support channels. This

“AI avatars enable a more human-led and empathetic communication that mimics human speech

provides businesses with a unique way to cut through and meet consumer needs in areas such as customer service, education, healthcare and entertainment – among many others.

### Eliminating technical and financial barriers

Yet despite the benefits, concerns about privacy, cost and complexity around AI risk undermining this progress.

“Globally, CEOs say AI is their number one priority, but they also say it's their biggest concern,” says James Martin, founder and chief executive of Dante AI, a market leader in the world of AI chatbot and AI avatar development.

“For this reason, many firms hold back and miss out on the advantages. So, it is vital to eliminate the technical and financial barriers that companies face with AI, while providing truly secure platforms that leverage the full benefits of the technology.”

Dante AI helps clients launch advanced AI chatbots and AI avatars within minutes, via its easy-to-use self-service platform. Dante AI's “no-code” approach means users require no previous coding experience – they can simply type their instructions into the system to achieve the desired results using natural language processing (NLP).

The company's AI chatbots and AI avatars go beyond merely handling repetitive tasks, promising to revolutionise digital interactions – providing faster, more accurate responses that help to form a more human-like bond with users.

They are also highly customisable, offer advanced insights on AI chat performance in real-time, and integrate easily with existing IT systems, connecting with over 6,000 applications and Dante AI's direct integrations into widely used platforms such as MS Teams, Slack and WhatsApp.

Dante AI's white-label approach also means its tools blend seamlessly with a company's existing brand assets – cutting development timelines from

months to minutes. This ease of adoption ensures that even smaller businesses can leverage cutting-edge AI technology to enhance their operations and customer engagement.

### Strikingly authentic

“Our AI assistants are intelligent, responsive and astonishingly human-like,” says Martin. “They can comprehend and respond to users instantly – exhibiting nuanced behaviours, expressions, and empathy that make interactions strikingly authentic.”

The firm already has more than 100,000 users globally, from B2C consumers to major blue chip companies, and its user base is growing fast. Martin believes embracing AI chatbots and AI avatars is a long-term strategic move toward a more immersive and engaging form of customer interaction.

Yet, while the data collected through AI solutions can provide companies with real-time end-user data, security is critical and sits at the heart of Dante AI's business philosophy. The company offers robust data encryption that meets the highest international data protection standards and only works with trusted corporate partners such as Amazon Web Services and ChatGPT creator OpenAI, amongst others.

“In a world rushing towards ultra-complicated solutions, Dante AI champions simplicity while ensuring the highest levels of security,” he concludes. “Our tools are so intuitive a child could master them, yet so powerful the biggest enterprises can rely on them. It means no matter your background, you can leverage the benefits of this transformative AI technology within minutes.”

For more information please visit <https://go.dante-ai.com/>

**Dante**



# How the UK is poised to become an AI and data platform leader

A unique combination of data infrastructure and a commitment to AI as an investment sector puts the UK in prime position to dominate digital transformation

**A** land data are two of the main cornerstones of technology in business – with the former often helping unlock insights hidden within the latter. And UK businesses are uniquely situated to take advantage of the promise of both, thanks to the position the country holds in the world. There are more data centres in the UK than any other country in the world, except the US and Germany. The country punches above its weight in its data might, ranking seventh when graded by GDP.

At the same time, the UK is leading Europe in AI-created jobs and companies. There are currently 360,000 AI related jobs in the UK, contributing \$2.2bn in annual GDP. By 2030, AI will boost the UK economy by 10%, according to PwC.

"AI can unlock GDP growth at a rate that's unprecedented in recent years," says Kevin Dallas, CEO of EDB, a leading Postgres data and AI company. "The forecast would suggest a 1.5 percentage point annual growth rate – just from AI. Compare that to the first quarter overall GDP growth rate this year, which was annualised at just 0.7%."

## Harnessing the power of AI

The numbers speak for themselves. But AI and data will change so much for businesses beyond the typical ROI metrics. In an EDB survey of C-suite executives, respondents said that AI could help bring return on investment by unlocking agility and competitive advantages. In addition, respondents also felt AI could open up the capacity for innovation – which would in turn create better margins.

"The question is how, not if, your organisation can transform to be a data and AI platform-based infrastructure," says Dallas. AI is becoming a focal discussion point in the enterprises EDB surveyed, with 59% of businesses in the United States, 63% in the UK and 66% in Germany saying it's a vital topic when considering future technology strategy.

However, simply having AI within your business is not a guarantor of success. The ability to operate and work at very high speeds with AI and data is seen as a near-universal prerequisite for success among respondents, with at least four in five C-suite representatives across the US (84%), the UK (81%) and Germany (81%) agreeing with its importance.

## Rewriting your business plan

Harnessing AI at speed means new thinking about effective, AI-literate

infrastructure has to take place. "Organisations need to develop, consume and operationalise their AI and data for their own platforms, wherever, however and whenever they want," says Dallas. "It's this idea of your organisation becoming a data and AI platform that is going to drive success."

IDC estimates that 90% of all data collected by enterprises is unstructured and therefore its real value has yet to be discovered. Adding structure to that data is the promise AI can bring to businesses. To achieve the most from the technology, businesses need to follow three key steps.

### First key for success: You need a sovereign AI and data platform

Much of the value of a business's future data will come from the idea of being able to access it anytime, anywhere – while staying compliant. AI should only be restricted by your industry standards and regional governments. This means data will be on your premises, in your private clouds and maybe public clouds.

### Second key for success: Observability is critical across your data estate for AI success

Organisations infusing AI into their mission-critical workloads also need to ensure there is observability across these data estates and workflows. "Observability is crucial: AI has an insatiable appetite for data from a plethora of sources, and businesses need visibility into this process across their various data estates," says Dallas.

Simply adding AI into your company's mission-critical workloads is not enough: you need to be able to see how it is helping your firm and adapt to its findings. Success will be driven by observing data when, where and how you need to.

### Third key for success: In an uncertain future, open source is vital

At this stage of the AI revolution, it is impossible to predict the full direction of data and AI platforms, so choice is essential. Secure, compliant and enterprise grade AI and data in an increasingly open-source world is part of this future. Four in 10 leaders in the US, UK and Germany reported that data platforms such as Postgres will be considered for their next major AI project.

"Companies need solutions that are flexible enough to run both in the cloud or on-premises depending on



“Companies need solutions that are flexible enough to run both in the cloud or on-premises depending on their specific needs and workloads.”

their specific needs and workloads," says Dallas. "AI is still a new frontier, so companies should opt for technologies like Postgres, which have an extensible underlying data model that also provides ongoing support as they navigate building these novel intelligent applications."

### Unlocking opportunities

EDB is the leading contributor to the fast-growing open-source database, Postgres. The company works with businesses to help them unlock AI and data opportunities.

AI, data and Postgres are already being combined to make a dramatic

difference to our planet, in ways far beyond initial expectations of technology. The Wildlife Conservation Society uses this technology to track the real-time health of coral reefs that drive the livelihood of over 500 million people.

"Making data accessible to all users, across different environments and applications, is crucial in the era of AI, especially when it comes to protecting our world's oceans," says Dallas. "With more than 35 years of continuous development, Postgres stands as the most adaptable and versatile database, relied upon by millions of nonprofits, government bodies and businesses. What we are witnessing now is that Postgres can significantly contribute to the future of our planet."

This is just one example of how AI, data and Postgres can make an impact. To welcome digital transformation into their own organisations, leaders will need to redraw their business plans. Companies will need access to their data and AI platform when, where and how they need it, without disturbing the mission-critical operations that are running a business day in, day out.

"There will be new ecosystems that will need to wrap around your business

as an AI and data platform, because open source done right will deliver value far greater than the sum of all the parts," says Dallas.

Firms will need to infuse their AI models into their business, where, when and how they want. As a result, leaders will need to be constantly vigilant to ensure that data is secure and compliant as it is moving and working across their whole data estate.

This all requires a level of observability across data estates that is currently not common practice. "It's a hard task," says Dallas. "But enterprise-grade Postgres delivers each of these key components of success for your AI and data platform future." IT leaders driving digital transformation must harness the potential of data and AI, with those in the UK uniquely positioned to lead the charge.

For more information please visit [enterprisedb.com](https://enterprisedb.com)



## RISK

# Are firms ready for the cost of AI failures?

AI systems offer strong advantages, but organisations must prepare for the consequences if the technology goes wrong

Daniel Thomas

**W**hen McDonald's was forced to remove an AI-powered ordering system from its US drive-through restaurants in June 2024, the debacle served as an example of what can happen when the new technology goes wrong.

The problem started when the fast food giant's voice-activated tech began to misinterpret customer orders to comic effect, registering requests for bacon-topped ice cream and hundreds of dollars' worth of unwanted chicken nuggets. Naturally, videos of these gaffes went viral and sparked a torrent of mockery, forcing the chain to shelve its partnership with IBM, which supplied the ordering system.

As AI proliferates, such system failures are becoming increasingly common, with organisations including Microsoft, Air Canada, Tesla and Amazon all experiencing their own embarrassing incidents.

The costs can be significant in terms of business continuity, brand damage, regulatory action and even legal claims.

But that hasn't dampened enthusiasm for AI's potential. Again, look at McDonald's: despite the blunder, the company maintains the technology is still "part of its restaurants' future", highlighting the obvious efficiencies that AI solutions can produce.

So how can firms minimise the risks while maximising the benefits?

AI failures can be grouped into three categories. The most common misstep is when an automated system produces an output that is incorrect, biased or even discriminatory. Often the consequence of a system being fed with bad data, this type of failure has led to lawsuits and enforcement actions.

Then there are blunders in data protection. These errors relate to how algorithms are trained and have spawned a spate of recent copyright cases against AI providers such as Microsoft and OpenAI.

The third category of failure is cyber attacks, either against AI systems or facilitated by them, which are becoming more common and more dangerous.

According to Luisa Resmerita, a senior director in the technology segment at FTI Consulting: "The challenge for businesses is balancing the costs of lost opportunities on the one hand and the costs of getting it wrong on the other."

Many of the implementation problems may stem from the fact that generative AI is a new technology and is being adopted very quickly. According to the Federation of Small Businesses, 20% of UK small and medium-sized enterprises say they now use some form of AI, but 46% admit they lack the knowledge and/or skills to use it successfully.

A robust AI strategy is key to staying safe. Firms should carry out risk assessments to evaluate the chances and potential consequences of AI system failures. They should also have backups to ensure business

99%

of chief risk officers worldwide believe the development and deployment of AI technologies is outpacing the management of ethical and societal risks

43%

believe the deployment of AI technologies should slow or pause until risks are better understood

World Economic Forum, 2023



“The first step to mitigating risks is to take a transparent and traceable approach to model-building

continuity; a proper data strategy so that systems are powered with the right information; reliable monitoring processes; and proper human oversight of AI decisions.

Executives increasingly require the advice of external partners to ensure their AI strategies are founded on a realistic appraisal of potential risks, according to Stina Connor, an associate director at risk management consultancy Control Risks.

Security teams, on the other hand, often want more tactical support, she explains. Such support could help them understand the trajectory of cyber threats, for example, or to design appropriate policies, guidelines and internal training on the acceptable use of AI within organisations.

Crucially, security and risk mitigation should move in tandem with commercially driven decisions surrounding AI implementation, including partnerships and strategies, Connor says.

Some firms may need to hire dedicated AI and data professionals to oversee AI development and ensure

models are ethical, accurate and secure. It is critical that these experts work closely with management, legal and compliance teams so the right AI culture is instilled across the organisation.

Amir Jirbandey, head of growth and marketing at AI-powered video dubbing startup Papercup, points out that more and more large organisations are establishing dedicated AI committees.

"Groups such as these enable holistic evaluations of the risks and benefits of the technology for businesses and their people," he says.

With coherent regulation in short supply, one of the challenges businesses face is a lack of guidance on AI best practices. This will soon change with the introduction of legislation such as the EU's AI Act. However, this will in turn see a considerable growth in the compliance burden for internal teams.

Evolving regulations require varying levels of compliance around maintaining detailed documentation and logs of AI systems, notes Mirit Eldor, managing director of life sciences solutions at Elsevier, an information analytics company.

She believes the first step to mitigating risks, including regulatory risk, is to take a transparent and traceable approach to model-building. "This means ensuring AI models are backed by robust data governance, providing visibility into exactly how and what data is being used," she says.

Given the risks, some firms may choose to avoid AI altogether. That would be a mistake, says Michal

Szymczak, head of AI strategy at software consultancy Zartis.

It's best to jump in and experiment. Companies learn through trial and error and are likely to gain a competitive advantage as an early adopter, he says. "No one has the recipe right now, so every company will have to find its own way."

But it isn't enough to deploy an AI tool and hope for the best, Szymczak stresses. Firms need a strategy with clear processes for monitoring, notifying and eliminating problems – automatically, if possible.

"A good principle to keep in mind is 'innovate, monitor and control,'" he says.

While companies must prepare for possible systems failures, a one-size-fits-all solution is unlikely to work. Some may focus on enhancing corporate governance by injecting AI risk controls into their processes; others will take a more targeted, product-centric approach.

Resmerita thinks AI risk is uniquely multifaceted and therefore must be addressed holistically. "Ultimately, an organisation's approach to governing AI risk must be proportionate to their AI investment strategies and risk tolerance," she adds.

Like Jirbandey, she believes executive buy-in is key to building an effective AI strategy that properly accounts for risk. Companies should also define clear roles, responsibilities and protocols for AI governance.

"While defining policy standards is an important first step in the journey, standards are only valuable if they are effectively implemented," Resmerita concludes. ●





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