thread

GenAI's next frontier

Scaling for lasting impact

Valtech ✳

Hello – welcome to Issue 9 of

thread

In this issue of Thread, you will find unique perspectives from stakeholders and practitioners forging new ways of living and working in the post–GenAI era.

We start by defining a few foundational concepts. Then, we ground this technology by sharing real–world use cases, where AI has moved beyond proof of concept to a production workhorse that's solving problems.

Looking ahead, AI is poised to redefine business as usual, setting the stage for a new era of innovation. As with every disruptive wave, things may go differently than planned. Consider early ideas of the internet as a space only for academics. What will the future hold? Phones and apps forever replacing laptops? Crypto replacing fiat currency?

We'll highlight AI as an additive force in digital strategy and data foundations. Knowing where AI fits best (and where it doesn't) is essential to ensure organizations spend responsibly in ways that create measurable ROI.

We hope these insights help you position AI effectively within your organization's strategy and lead with confidence into the future.
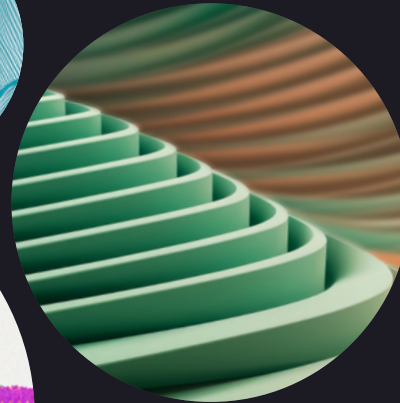
Cameron Turner
Vice President of Data Science
at Valtech

In this issue
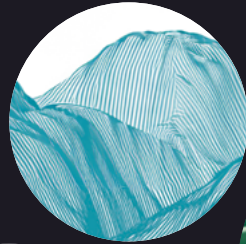
From GPT to RAG
Decoding the latest AI terminology

Advanced technology brings a new vocabulary. This glossary breaks down essential AI terms, helping you navigate the tools and concepts powering the next wave of business transformation.

GPT: Generative Pre-trained Transformer

GPT models, such as GPT-4, use transformer architecture to generate human-like text, capable of performing a wide range of tasks. These models are continuously evolving, with recent versions offering enhanced capabilities in language understanding and multimodal data processing.

Agentic AI

Agentic AI systems are capable of autonomously pursuing complex goals with minimal human intervention. This development marks a move toward more independent AI operations, empowering organizations to scale decision-making and handle intricate workflows with greater ease.

AI Copilot

An AI copilot is a conversational interface designed to assist users in completing tasks, analyzing data and making decisions across various enterprise domains. By automating routine processes and supporting strategic functions, AI copilots boost productivity and efficiency.
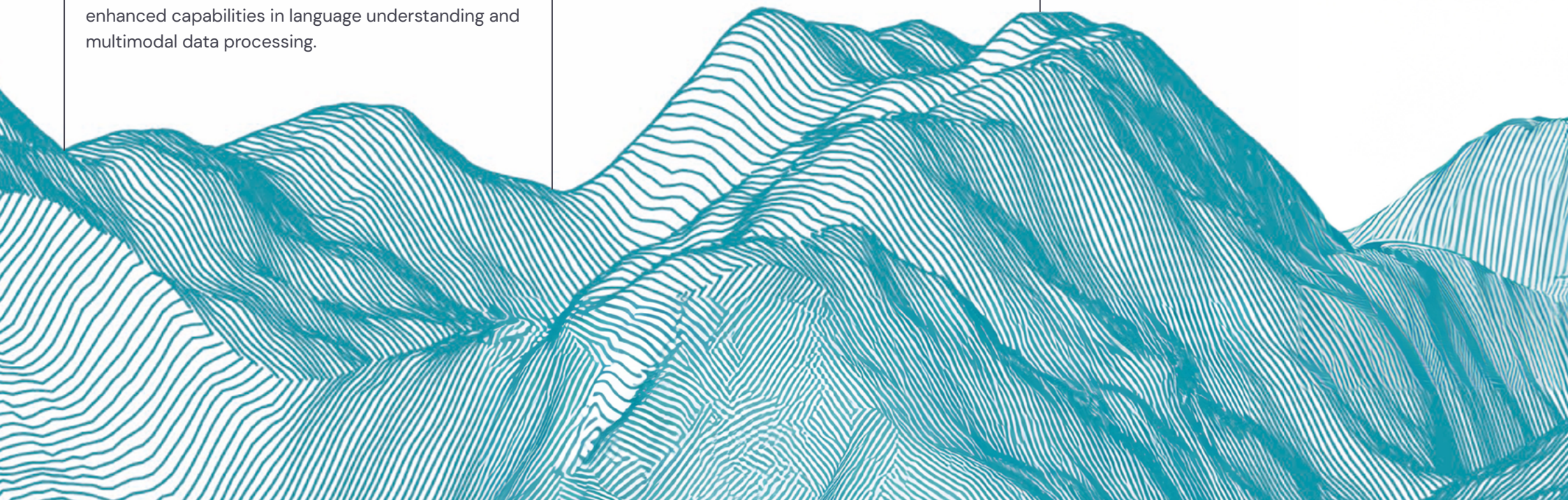
Grounding

Grounding anchors AI models in verified knowledge, ensuring that their responses are based on accurate, real–world data. This process is critical in minimizing hallucinations, increasing trustworthiness and providing reliable information in high–stakes environments.

Prompt Engineering

Effective prompt engineering ensures AI models generate precise, contextually aligned outputs by crafting well–designed queries. It plays a crucial role in guiding AI to provide answers that meet specific objectives, helping businesses maximize the potential of language models.

RAG: Retrieval–Augmented Generation

RAG enhances AI systems by combining large language models with external knowledge sources. This approach allows AI to access real–time information, ensuring more accurate and contextually relevant responses, making it especially useful in dynamic business environments.

GenAI's next frontier

Scaling for lasting impact

By Mary Ellen Slayter

Within two months of launch, ChatGPT had 100 million active monthly users, making it the fastest-growing consumer application in history. Today, more than 2 million developers use Open AI's technology, and more than 92% of Fortune 500 companies have integrated it into their operations[1].

The response from business users, from delivery to the boardroom, was immediate and enthusiastic. Many people rushed to adopt it for simple tasks — rewriting emails, drafting customer service responses and automating repetitive communications — hailing it as a welcome productivity booster.

However, as the initial novelty wore off, it became clear that people were only scratching the surface of what generative AI could do. Individuals quickly embraced chatbots like ChatGPT, Google Bard (now Gemini) and Microsoft Bing Chat (now Copilot) to save time, but individual adoption wasn't translating into strategic efforts. Organizations were slow to integrate this technology into broader strategy and operations.

In fact, employees were often concealing their use of the tools. "People were using it, but they were hiding it from their executives," says Paul Varlet, Strategy Partner at Valtech. "Now that companies are officially adopting GenAI, the challenge is getting people to use it strategically, not just for simple tasks."

This shift from individual experimentation to organizational adoption is crucial for unlocking the full potential of AI to revolutionize customer experiences, optimize operations and ultimately foster greater human–AI collaboration across industries.

Proprietary data: Essential fuel for the journey

Scaling GenAI for true impact requires more than just enthusiasm. It needs data, and lots of it.

"If you don't have any data to build out the thing, it's going to go nowhere," says Richard Bownes, Lead Data Architect at Valtech. "It's like the petrol for your car. You've just got an empty Ferrari without your data source."

"Now that companies are officially adopting GenAI, the challenge is getting people to use it strategically, not just for simple tasks."

Paul Varlet, Strategy Partner at Valtech

LS Eleven, an ambitious digital initiative launched by UK supermarket chain Asda, provides a great example of this principle in action. LS Eleven, powered by data from the Asda Rewards loyalty program, empowers brands to unlock more focused media planning and seamless omnichannel experiences.

"A lot of retail organizations have heaps of data, but it's fragmented and disconnected," says Qaiser Mazhar, Chief Technical Officer of LS Eleven. "Our major initiative is about consolidating all of that data, normalizing it so we can get the value from it and ultimately provide immense value to our customers."

AI-driven insights enable Asda to offer tailored promotions, product recommendations and cohesive purchasing journeys that are highly relevant to individual customers. The future of retail is about "what we used to have," suggests Mazhar, with AI acting like "a local store owner who knows you, but now digitally and at scale."

David DeCheser, Global Chief Creative Officer at Valtech, predicts GenAI's dependence on data could turn the traditional innovator's dilemma on its head, arguing that GenAI's dependence on data hands an early advantage to industry giants over more-nimble

newcomers. Those large and traditionally slow-moving enterprises own the most valuable, specialized data — the critical asset that startups lack.

But that advantage isn't guaranteed to last, and managing all that data also presents its own challenges. Without the right infrastructure and data governance, even large organizations can find it difficult to harness AI effectively. "Legacy organizations need to correct their data foundations to properly leverage it — never mind putting in all of the governance needed to ensure it's used in the right way," DeCheser adds.

Although data is a critical piece of the GenAI puzzle, DeCheser warns against the pursuit of "perfect data" which can lead to analysis paralysis. "While a solid data foundation is crucial, it's not the be-all and end-all — nor should it be a roadblock. GenAI's iterative nature lets you start small, learn improve data as you go and stay agile."

Blazing new trails in AI-powered customer journeys

Delivering a truly personalized, data-driven customer experience at scale requires a new level of intelligence. By fine-tuning each interaction, AI is empowering companies to shape customer journeys that anticipate needs, including complex searches.

For companies with vast product inventories, providing an efficient and intuitive search experience is critical. CPC Farnell, a global distributor of electronic components and part of the Avnet group, faced the challenge of helping customers navigate an inventory of more than 100,000 products.

To address this, CPC Farnell implemented an AI-powered search solution using Google Vertex AI.

"The challenge is to find a balance where AI enables and speeds up great work, while leaving space for innovation and creativity."

Lindsay Ratcliffe, MD UK and SVP Product, Innovation and Data Services Europe at Valtech

"Ultimately, it's really trying to guide the customer and do the heavy lifting for them to make sure they get the right product," says Nick Townend, Director of Product – eCommerce at CPC Farnell, part of the Avnet Group, describing how AI transformed their search functionality. "With over 100,000 products in the CPC group and over a million in Farnell, it's like trying to find a needle in a haystack. AI can reference previous applications, look at associated products and marry two products together or ensure compatibility."

Townend further elaborates on how AI enhances the search process through natural language understanding: "It stems back to natural language because customers can talk to us as if they were talking to a sales representative. So you can tell it, this is what I want to build, this is the purpose of the product. And then we can take a suggestion back from the AI engine and you can build the conversation there."

The AI-driven search system improves product discovery and boosts conversion rates and revenue. By analyzing customer queries and product attributes, the AI engine provides more relevant results, reducing the frustration of "no results" searches.

Charting a course for greater strategic impact

As companies continue scaling their AI efforts, the focus is shifting from routine tasks to high-value initiatives. This phase is where GenAI moves from support role to strategic powerhouse.

For example, Syngenta, a global leader in agricultural science, partnered with Valtech to embed agentic AI into its Golden Harvest Experience (GHX) app. This integration allows the app to deliver real-time, personalized farming recommendations, such as identifying the best seeds to plant under specific conditions. Central to this innovation is Cropwise AI, an advanced platform designed to support data-driven decision-making.

Zachary Marston, Digital Product Manager for Computational Agronomy at Syngenta, explains: "We use large language models as a natural language interface, allowing

"AI doesn't replace experience or taste. You still need human intuition to differentiate between what's mediocre and what's great."

David DeCheser, Global Chief Creative Officer at Valtech

farmers to ask questions. Behind the scenes, these models act as agents, selecting the right tools and workflows to complete tasks based on user input."

However, as with any cutting-edge technology, there were challenges. "Some early tools we tested didn't meet our needs," Marston notes. "We had to adapt both our strategies and the use cases to fully leverage the technology's strengths." This iterative process helped Syngenta refine how AI integrates with their app, allowing it to deliver more relevant, actionable insights to growers, agronomists and account professionals.

The AI platform within the GHX app offers detailed information on crop protection, seed performance and optimal growing conditions. This real-time guidance

enables users to make more informed decisions, improving crop yields and promoting sustainable practices. Marston is quick to point out that the goal isn't to replace people but rather to enhance their expertise. "It's about giving them better tools to make more effective decisions. We're helping them do what they've always done, but in more informed, more efficient ways."

This collaboration between human insight and AI's data-driven power is critical, says Lindsay Ratcliffe, MD UK and SVP Product, Innovation and Data Services Europe at Valtech. "The challenge is to find a balance where AI enables and speeds up great work, while leaving space for innovation and creativity."

Ultimately, AI serves as a powerful partner, amplifying human creativity and judgment. As DeCheser adds: "AI doesn't replace experience or taste. You still need human intuition to differentiate between what's mediocre and what's great."

Expanding horizons

As organizations evolve past the initial excitement of generative AI, the focus has shifted to unlocking its full potential by scaling it across all facets of operations.

GenAI is no longer just a tool for automating simple tasks but a strategic driver for industry transformation, enhancing customer experiences and fueling sustainable growth. To truly capitalize on this technology, companies

must invest in robust data infrastructure, foster meaningful human–AI collaboration, and apply AI solutions that create tangible value for both customers and employees.

By approaching AI adoption strategically, organizations can stay ahead of the curve and lead the next wave of innovation. ⋄
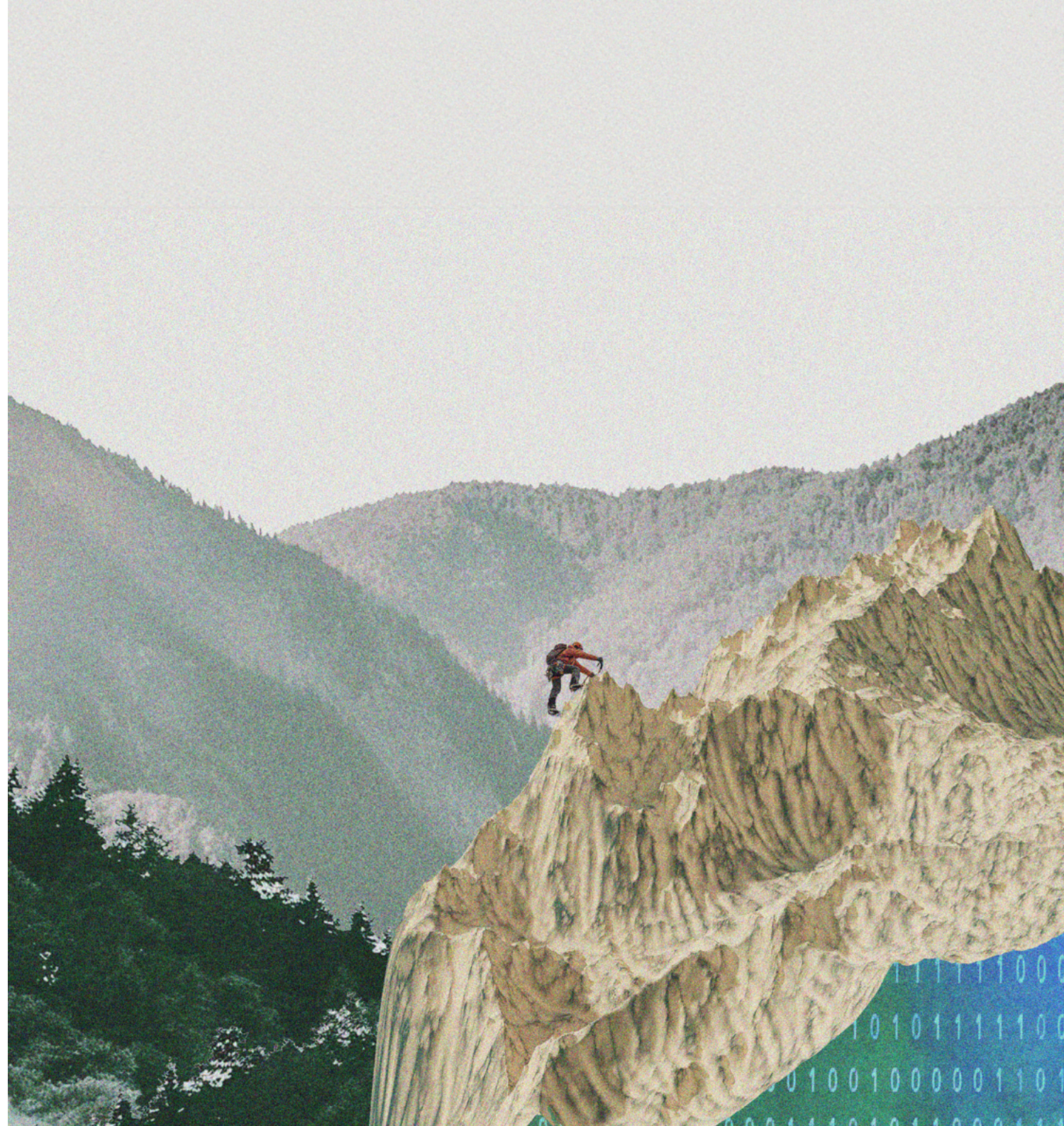
The next creative wave

GenAI as a growth imperative

By Matt Redman

We've been handed the most powerful growth tool since the introduction of the internet. So, why is it that most conversations about GenAI are all about efficiency and killing jobs?

This narrow lens misses the real story: AI's capacity to spark an era of creativity and innovation on an unprecedented scale. GenAI has the potential to redefine entire industries, open new markets and expand what we thought was possible.

From IT cost center to everybody's business

For too long, technology has been siloed within the IT department, evaluated primarily as a cost center that needs to prove its value through savings.

However, GenAI is now seen as a business asset, aligned closely with strategy, growth and innovation. Seen through this lens, GenAI is no longer just about running more efficient operations — it's about reimagining entire business models.

Take L'Oréal, for example. Through its AI-driven platforms, the company uses customer data and skin analysis to develop highly personalized skincare products, going so far as to create beauty regimens tailored to unique skin concerns. GenAI is integral to their ability to scale these personalized experiences and build customer loyalty. This isn't just cost-saving; it's a forward-looking approach that places customer needs at the core, driving loyalty and engagement on a massive scale.

Start asking bigger questions

Real innovation rarely comes from limiting ourselves to optimizing what already exists. Imagine, for instance, if we only thought about how AI could make assembly lines faster — what a waste of potential that would be. The real breakthroughs come when we're bold enough to ask bigger questions.
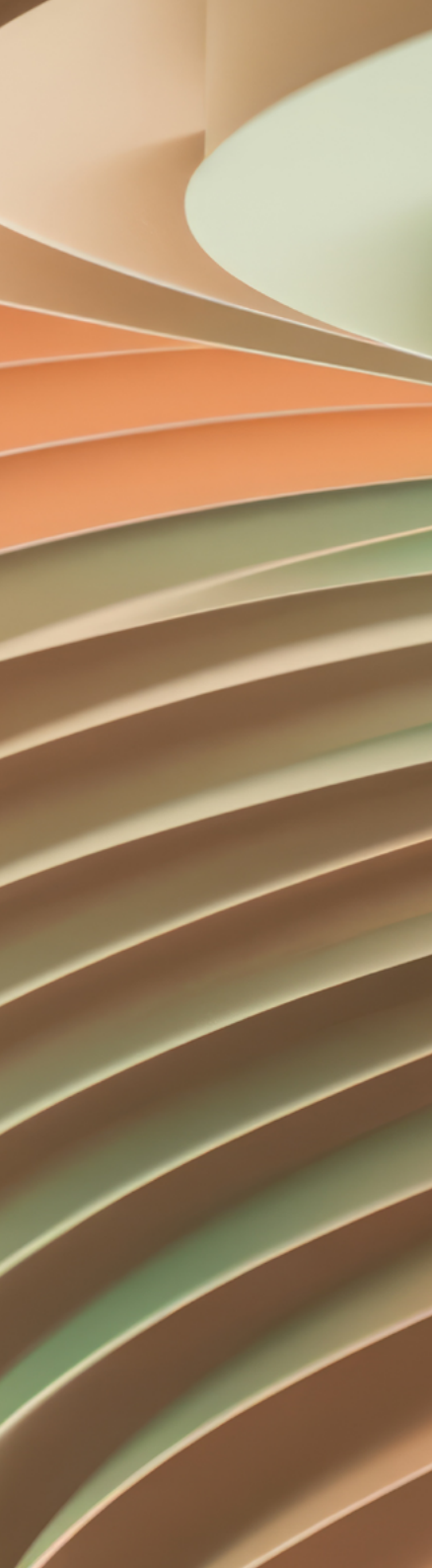
Consider the Earth Species Project. This team of AI engineers aims to decode the languages of the 8 million species we share the planet with. Their goal? Capture and translate animal languages using generative AI to make interspecies communication possible. Imagine being able to chat with your cat or dog — what would that be worth?

In business, this kind of bold curiosity drives meaningful innovation. Unilever, for instance, uses GenAI to develop new, sustainable products by simulating consumer preferences and testing variations virtually. In food, this approach helps them find alternatives to traditional

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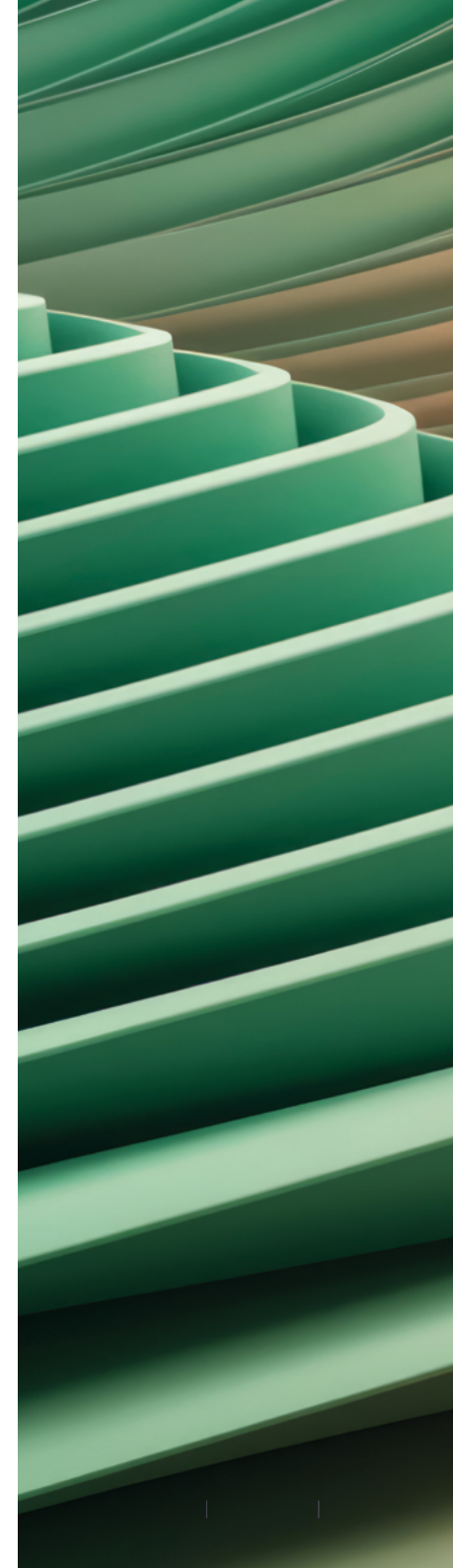
Big brands with loyal customer bases and rich data sets will be able to deliver unique experiences and highly customized products that startups will struggle to replicate.

ingredients, cutting waste and reducing environmental impact. And this type of innovation is already impacting behaviors in the home — chatbots can now scan the ingredients inside your fridge and come up with meal ideas that reduce waste in seconds.

Proprietary data as competitive advantage

Once AI no longer relies on public information for training, companies with proprietary data will become the new powerhouses of innovation. Big brands with loyal customer bases and rich data sets will be able to deliver unique experiences and highly customized products that startups will struggle to replicate.

Nike exemplifies this competitive edge. By leveraging customer data, Nike has been able to design personalized footwear tailored to individual preferences and physical activities, creating products that speak directly to each consumer's unique needs. This approach not only sets them apart in the market but reinforces brand loyalty, proving that GenAI can do much more than just reduce costs. It can create high-value, personalized experiences that drive new revenue streams.

Proprietary data is also a powerful driver of competitive advantage at Nissan, where predictive analytics help forecast market trends, while personalization tailors customer experiences. "The fact that we have so much proprietary data from the vehicles, from our ecosystem — that is the thing that will be the game-changer, the difference [between us and]

anyone else doing generative AI-type work," Viv Yuen, Nissan's Head of Global Digital Product and Implementation, shared on an episode of Valtech Cafe.

Similarly, IKEA's AI-driven interior design app enables customers to visualize how furniture will look in their homes, designing layouts based on their preferences. This goes beyond simple product placements, letting users create spaces that feel truly personal. Here, AI supports a unique customer experience, bridging the gap between imagination and reality — a true embodiment of what it means to use technology to add value.

Get ready for generative business

Efficiency gains are valuable, but they're backward-looking. To unlock generative

AI's full potential, we need to see it as more than an operational tool. GenAI invites us to rethink growth strategies and reshape products and experiences from the ground up.

This shift toward "generative business" emphasizes experience-driven innovation and real-time learning. Now is the time for leaders to use GenAI as a growth engine, embracing its ability to redefine the future — not just optimize the past. ◇
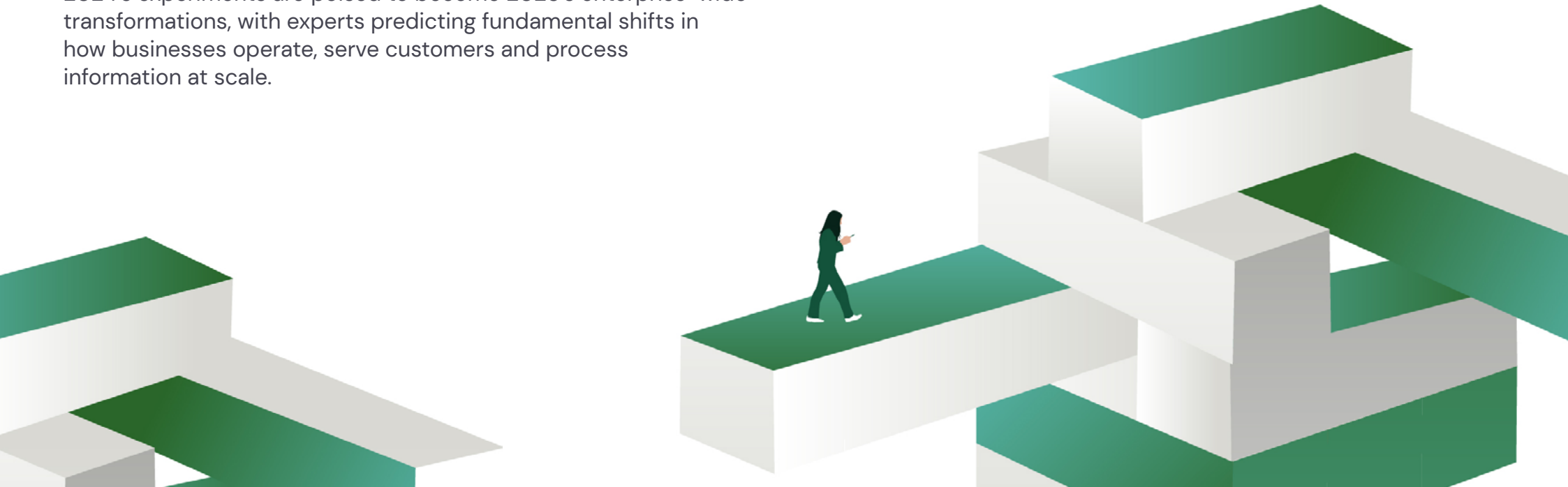
Raising the stakes

Enterprise AI predictions from our experts

As AI moves from buzzword to backbone across industries, 2024's experiments are poised to become 2025's enterprise-wide transformations, with experts predicting fundamental shifts in how businesses operate, serve customers and process information at scale.

A local store feel, now at scale

"The future of AI in retail is about becoming what we used to have … a relationship with a local store owner who knows you, but now digitally at scale."

Qaiser Mazhar, Chief Technical Officer, LS Eleven

The rise of agentic AI

"A diverse array of AI agents tailored for specific industries — healthcare, legal, education and creative fields — will emerge, offering highly specialized and efficient solutions."

Kathleen Perley, Advisor on AI Initiatives, Rice University

Built for speed

"Application-specific integrated circuits (ASICs) could be game-changers. Instead of coding complex transformations, these capabilities could be embedded into the silicon, which will process tasks exponentially faster and at lower energy costs."

Richard Bownes, Lead Data Architect, Valtech

From pilot projects to power plays

"In industries where there's been a specific use case identified, it's been really well validated, and there's high readiness within the organization to exploit that use case. 2025 is going to be about scaling the bet."

Morgan Kainth, VP of Strategy – Europe, Valtech

The app evolution

"Mobile apps need to evolve — the future belongs to experiences that are as intelligent and seamless as our best AI assistants."

Lindsay Ratcliffe, MD UK and SVP Product, Innovation and Data Services Europe, Valtech

Adaptive experiences for the individual

"AI is changing the way we approach user intent. Instead of guessing or designing around predefined actions, we will create experiences that adapt to each person in real time."

Katerina Nishan, Associate Creative Director – Delivery, Valtech

Look before you leap

How to decide when GenAI is the right solution — and when it's not

By Clare Chiappetta

Every day, another business proudly announces its embrace of artificial intelligence, promising revolutionary improvements in productivity and efficiency. But beneath the hype lies a hard truth: AI isn't a magic solution that can solve every problem.

And the risks of wasted resources and derailed goals are very, very real. Gartner estimates that 30% of GenAI projects will be abandoned after proof of concept by the end of 2025, due to poor data quality, inadequate risk controls, escalating costs or unclear business value. "There's been an expectation that AI is a silver bullet, and it's going to quickly and easily solve all your problems," says Austin Humes, Director of Technology and Connected Experiences at Valtech. "And that's not the case whatsoever."

Implementing AI effectively requires thought and intention on the front end. Before committing to any new AI solution, you must carefully evaluate your needs, your available resources and potential alternatives.

Focus on real business problems

Before you get too excited about a tool, identify the specific problems you hope to solve with AI and what outcomes you want to achieve.

"You need to generate ROI targets for the outcomes of a project before committing new or additional resource," says Cameron Turner, Vice President of Data Science at Valtech.

For UK-based retailer Matalan, that pain point was an overloaded copywriting team that struggled to keep up with descriptions for their vast product range. They decided to test whether GenAI could alleviate some of that workload while delivering better search results to its customers. The payoff was quick: In three weeks, they stood up a GenAI and large language model (LLM) solution with Google Cloud Platform's Gemini and PaLM 2 on Vertex AI. The new AI-assisted process lets writers produce 100 descriptions every 30 minutes. Before, 100 descriptions was a day's work for the copywriting team.

However, as you solve one problem, don't forget to consider how that solution may impact other areas of the business. Many organizations stitch together disparate AI solutions, leading to fragmentation that undermines AI's overall potential. "The moment you cobble together multiple point solutions without a clear strategy or cohesive architecture, the benefits of those individual tools are lost. Any efficiency or productivity gains evaporate," says John Cunningham, Chief Technology Officer at Valtech.

Be realistic about your AI-readiness

GenAI costs go beyond setup, with ongoing expenses for software, hardware and support — and you may not always see an immediate return. Or a return at all, if you're not thoughtful about the project. "The hype says 3000% return. That's highly unlikely. There's lots to consider that could impact results in the long run and validating through the lifetime of a project is critical," says Morgan Kainth, VP Strategy – Europe at Valtech.
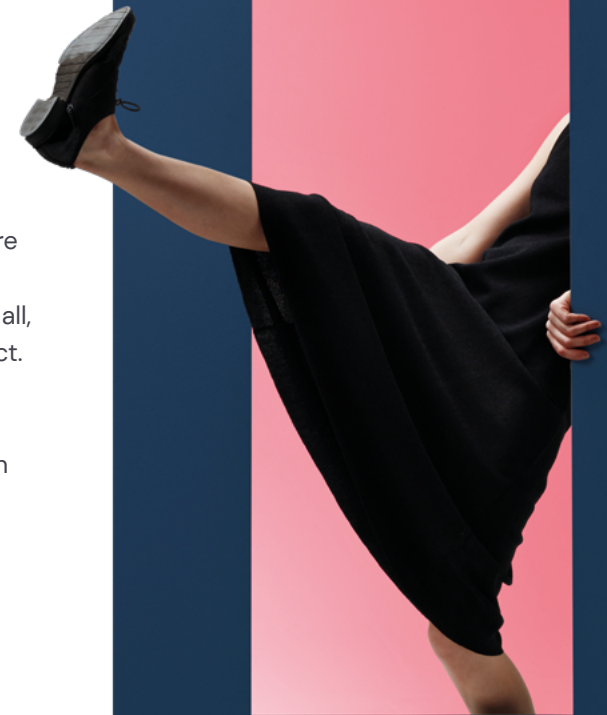
Your odds of success go up significantly if you already have robust data storage, processing power and access to high-speed networking. Even with sufficient hardware, disorganized data remains a challenge. "They have the data, but we're finding that it's not necessarily organized in the right ways," says Lindsay Ratcliffe, MD UK and SVP Product, Innovation and Data Services Europe at Valtech.

A skilled workforce — data scientists, AI engineers and developers — is also critical. If internal talent is lacking, hiring or training will be needed. Most leaders (82%) in Microsoft's 2023 Work Trends Index agree that new skills are essential for working with AI.

"AI needs continuous improvement, monitoring and maintenance. The more it is properly leveraged in a business, the more human labor you will need," says Lisa Rogers, Ph.D., Director of Data at Gumband, a software platform that helps manage and measure interactive experiences in a variety of settings, including museums, retail stores and stadiums. "Skills and expertise that are most critical for implementing and maintaining AI solutions include mathematical modeling, neurological modeling, data analysis skills and LLM-building knowledge."

"Do internal training around prompt engineering across everything from image generation to copy generation to show people the differences between the different types of prompt approaches," Cunningham says.

Don't forget about non-AI alternatives

If your resources are limited, alternative solutions may be more practical. Basic automation can handle repetitive tasks, while data analytics helps businesses extract insights to improve decision-making and efficiency. These can provide significant benefits without the high initial investment and ongoing costs of AI.

"We spend a lot of time tempering the euphoria or talking executives back from the technology and refocusing them on the business objective, and only then backing into the technology needed," Turner says. "Because sometimes GenAI isn't warranted. For example, sometimes the certainty of fact-based analytics outweighs the benefits of probability-based AI predictions."

Not every challenge requires an AI-driven solution. "A lot of smaller, static problems can be solved with simpler automation or data analytics that are more cost-effective and faster to implement," says Rumi Morales, partner and board member at Outlier Ventures. "AI is better suited for large-scale, dynamic issues that require continuous adaptation."

For example, Danish rental service Findbolig needed to modernize an outdated legacy system. Rather than opting for a complex AI solution, they focused on an API-based approach to streamline processes and reduce operational strain. This solution freed up internal resources, allowing the team to concentrate on more strategic initiatives while still improving efficiency. By selecting a practical, non-AI alternative, Findbolig managed to update their systems without overextending resources or investing in unnecessary technology.

Stick the landing

AI has the potential to revolutionize the way businesses operate, but that doesn't mean it's always the perfect solution for everyone. The real key to success is taking the time to reflect on what your business needs. Does AI fit with your goals? Do you have the resources to make it work?

Sometimes, simpler options like automation or data analytics can deliver big results without the massive investment. It's all about finding the right tool for the job. So, before diving headfirst into AI, ask yourself: is this really the smartest move for your business right now? ◇

"We spend a lot of time tempering the euphoria or talking executives back from the technology and refocusing them on the business objective, and only then backing into the technology needed."

Cameron Turner, Vice President of Data Science at Valtech

The way forward

by Matt Redman

SVP of Strategy for Europe
at Valtech

What if the key to unlocking GenAI's true potential isn't in finding the right answers, but in asking the right questions?

As we wrap up this issue on scaling GenAI, it's clear that the future of innovation will be shaped not by those who have all the answers, but by those who ask the boldest, most transformative questions.

When it comes to applying AI, the questions we ask often aren't ambitious enough. We wonder, "Can AI make this process faster?" or "Can AI reduce costs here?" These are questions of efficiency: useful but limited. The real power of AI lies in the questions that challenge us to think beyond incremental gains. "How can AI help us reimagine our business model?" or "What new markets can AI help us create?".

These are the questions that push us beyond the familiar into uncharted territory — questions that lead to new possibilities, new ways of delivering value.

But we also need to ask questions about AI's broader impact. What are the second- and third-order effects of integrating AI across our organizations? For every immediate problem AI solves, what hidden biases or unintended consequences might it introduce? Leaders who succeed in this next era of innovation will be those who interrogate not just AI's capabilities, but its broader impact on society, ethics and culture.

The challenge I leave you with is this: Don't settle for easy answers. Use what you've read in this issue to provoke deeper thinking within your organization. Ask better questions — of your teams, your strategy and the technology at your fingertips. Because the most exciting discoveries in AI aren't just about what it can do today, but how it can help us shape tomorrow.

This is our moment to lead through curiosity, to disrupt through inquiry and to build a future defined not by limitations, but by the boldness of our questions. ◇
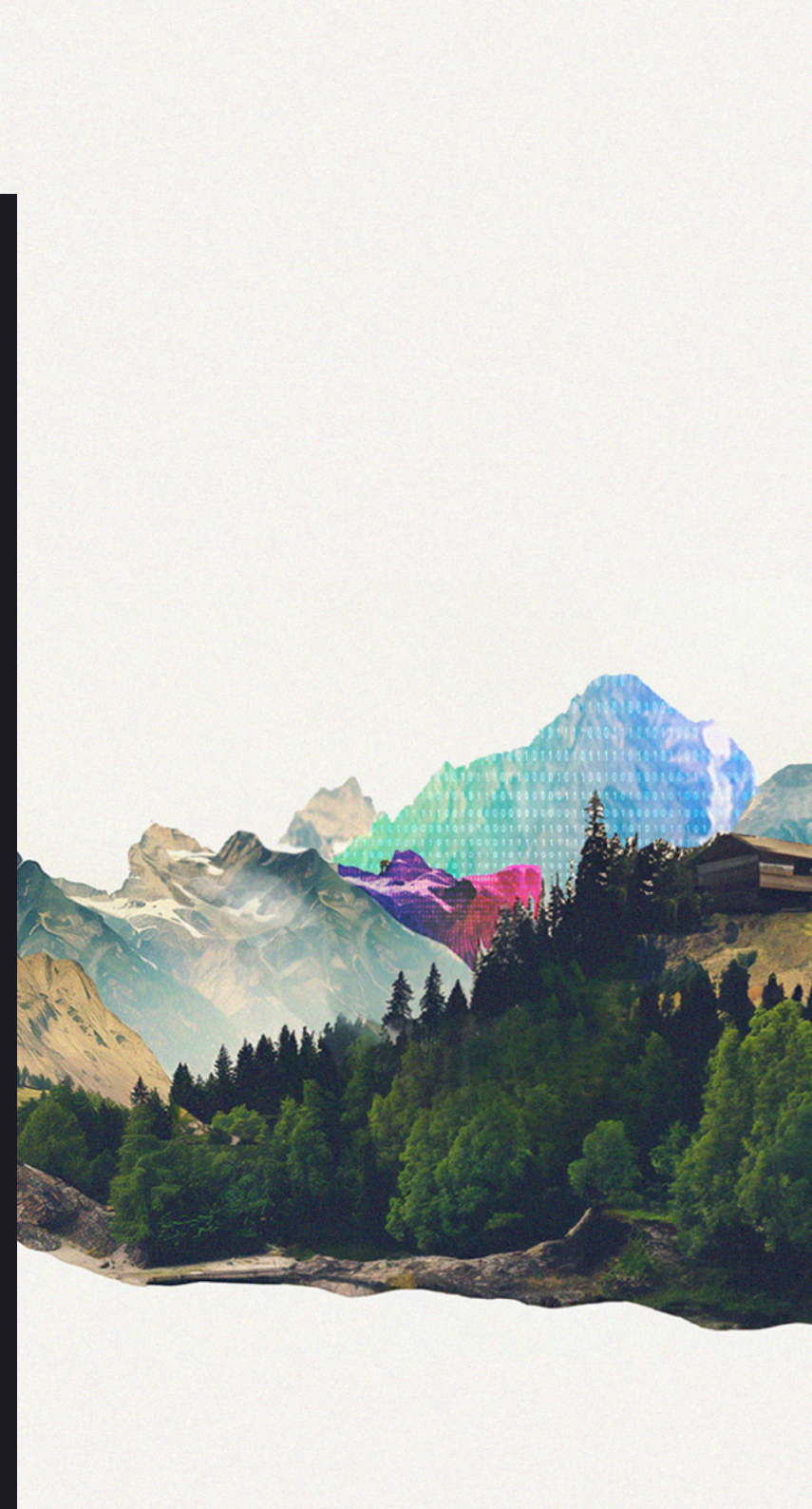
About Thread

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By blending crafts, categories and cultures, our global team of 7,500 professionals in more than 80 offices worldwide help brands unlock value in a digitally accelerated world. It's at the intersection of insights and perspectives where we leverage the power of data, AI, creativity and technology to achieve experience innovation for many of the world's best-known brands, including L'Oréal, Mars, Audi, P&G, Volkswagen and Dolby. See our work at Valtech.com.

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