The Real AI Skills Gap Isn’t Technical - It’s Imaginative

By Matt Hasan, Ph.D.

For many years, leaders have been told that their organizations face a massive “AI skills gap.” The consensus view is that companies desperately need more engineers, data scientists, and technical specialists. But after more than three decades advising senior executives across industries, I believe this diagnosis is profoundly incomplete.

The real AI skills gap isn’t technical.
It’s imaginative.

Most leaders continue to see AI as a technology that helps reduce costs, streamline processes, or incrementally improve revenue. They frame AI primarily as an IT initiative and therefore situate it within the domains of CIOs and CTOs, governed by traditional financial oversight from the CFO. When AI lives inside this narrow administrative corridor, its potential is inevitably reduced to operational efficiency.

This framing is not merely limiting; it prevents the technology from being understood for what it truly is:
a strategic capability that can reshape how organizations think, decide, and create value.

Technology Is Not the Limiting Factor

Powerful AI systems are already widely accessible. What is scarce is not compute; it is the willingness and capacity of leaders to rethink how their organizations operate.

Most AI conversations still begin with questions such as:
“What can we automate?” or “Where can we reduce cost?”

Far fewer leaders are asking the more transformative questions:
“How does AI expand what humans are capable of? What new decisions could we make? How does this change the structure of our work, our strategy, and our operating model?”

These are not engineering questions. They are questions of organizational psychology, economics, incentives, behavior, judgement, and system design. When executives cling to a narrow technological view, they confine AI to a role it has already outgrown.

The Economics of AI Have Become a Strategic Constraint

A critical dimension often overlooked in boardrooms is the economic and physical reality behind large-scale AI systems. Training and operating modern models requires extraordinary amounts of electricity, specialized hardware, cooling infrastructure, and data-center capacity. Grid limits are being tested, chip supply remains fragile, and the cost of scaling continues to rise.

The old belief that “compute is cheap” no longer holds.
AI is becoming more expensive - economically, environmentally, and operationally.

Yet many organizations still behave as if the only path forward is bigger models, more compute, and more energy-intensive architectures. This mindset reflects engineering enthusiasm rather than strategic judgement. In reality, most companies have not come close to extracting the value available from the AI they already possess.

Scaling for its own sake is not progress. It is a misallocation of resources. Mature organizations will increasingly need to focus on getting smarter with what they already have, rather than chasing an arms race in computational power.

AI Is Positioned in the Wrong Part of the Organization

Another reason for the imagination gap is structural. AI still “belongs” to the wrong functions. When the responsibility for AI is centered solely within technical leadership, and evaluated through cost discipline or operational efficiency, the organization implicitly communicates that AI is a back-office tool rather than an enterprise-level capability.

Some companies have begun appointing senior AI leaders, including Chief AI Officers (CAIO), as a way to elevate AI into the strategic domain. This is a promising step, but the role’s effectiveness depends entirely on its mandate. If these leaders are asked merely to deploy models and improve efficiency, the organization will reproduce past patterns under a new label. But if they are empowered to shape enterprise learning, decision-making, innovation, and long-term value creation, AI becomes a genuine driver of competitive advantage.

To support this shift, companies need more sophisticated ways to measure what AI is actually delivering. In my own work, I’ve built frameworks that examine how deeply AI augments decisions, how aligned it is with business strategy, and how much potential value remains unrealized. The details matter less than the principle: AI requires new governance, new measures of success, and a fundamentally different philosophy of leadership.

A Perspective Shaped by Systems, Economics, and Human Behavior

Over the last thirty years, I have worked with leadership teams at global consulting firms and later through my own advisory practice, supporting executives in industries as varied as financial services, healthcare, retail, telecommunications, and transportation. Across these settings, the pattern has been remarkably consistent: organizations invest heavily in technology, but underinvest in the strategic, behavioral, and systemic thinking required to extract its value.

My academic background, Ph.D. in quantitative economics, post-doctoral work in AI, and advanced study in behavioral science, has reinforced this reality. Technologies change quickly; human cognition, incentive structures, and organizational habits do not. AI does not transform a company because it is powerful. It transforms a company only when leaders rethink how decisions are made, how workflows are designed, how people interact with information, and what value the organization is truly trying to create.

Where Leaders Must Focus Now

If organizations hope to capture AI's **real** value, they must broaden their lens. AI should no longer be viewed as an instrument for technical optimization, but as a catalyst for reimagining the enterprise.

Leaders must begin by reframing AI as a strategic capability — one that affects judgment, workflow, structure, and long-term competitiveness. They must also focus on extracting meaningful value from the tools they already possess. The next wave of performance gains will not come from larger models, but from deeper integration of existing ones. Finally, organizations must adopt economically mature AI roadmaps that reflect real constraints related to energy, compute, talent, and capacity.

These shifts require imagination more than engineering. They require clarity more than code. They require leadership more than compute.

AI's Future Will Be Determined by Leadership, Not Model Size

We are at an inflection point. AI's potential is extraordinary, but its trajectory will be shaped not by the next technical breakthrough, but by the leaders willing to rethink how their organizations operate. The critical questions ahead are not technological. They are cognitive, economic, and strategic.

The organizations that thrive will not be those with the largest technical teams or the biggest GPU budgets. They will be those with leaders who cultivate the imagination to see AI for what it truly is:
a new way of thinking, a new way of organizing, and a new way of creating value.

AI is ready to transform business.
The real question is whether leaders have the imagination, and the willingness,

About the Author;

Matt Hasan, Ph.D., is an AI strategist, economist, and human behavior expert whose work focuses on how humans and intelligent machines can co-evolve toward better decisions and more resilient organizations. He is the founder of The AI Humanist Movement.