Leading the Shift: Inside the Enterprise AI Adoption Journey

By Cathy C. Smith

Artificial Intelligence (AI) is rapidly reshaping the world—are you prepared? Since OpenAI launched its generative AI tool, ChatGPT, in November 2022—rapidly attracting over 100 million users—the global community has been propelled into a technological revolution. Early on Generation Z and Millennials embraced ChatGPT at a rapid pace while companies started making huge investments. Media coverage amplified the hype and AI became a household topic of discussion. A plethora of AI tools for many use cases, more capital investment announcements, and competition amongst technology companies releasing the latest development was fierce. AI was top of mind for leaders from all industries. Executives found themselves perplexed about an ever-evolving technology that they didn't understand but knew that action was needed on some level. I often found myself in executive meetings fielding a flurry of questions: What courses should I take? Which tools should I use? How do I get started? What books should I read?

Leaders across all sectors have been compelled to engage with AI, as major technology companies embed it into core software applications. One day they wake up and find Copilots, Chatbots, and Agents readily available for employees to use in a nano second. Many leaders have little visibility into their organization's AI inventory —the number of applications embedded with AI—and lack a governing policy to guide usage across thousands of employees. The prevailing question becomes: How did we get here?

Secondly, during numerous consultations with executives they expressed concerns about making AI deployment decisions without understanding the rapidly changing AI ecosystem. Decision makers felt scaling business or government services without grasping the complex technology stack, AI vendors, and transformation components were treading on ice. Thirdly, leaders realized that employees secretly used external AI tools for work related assignments, which increased data and privacy risks. Yes, the train has left the station. The stark shift from digital leadership to AI leadership has IT professionals chasing a runaway train without a finite destination.

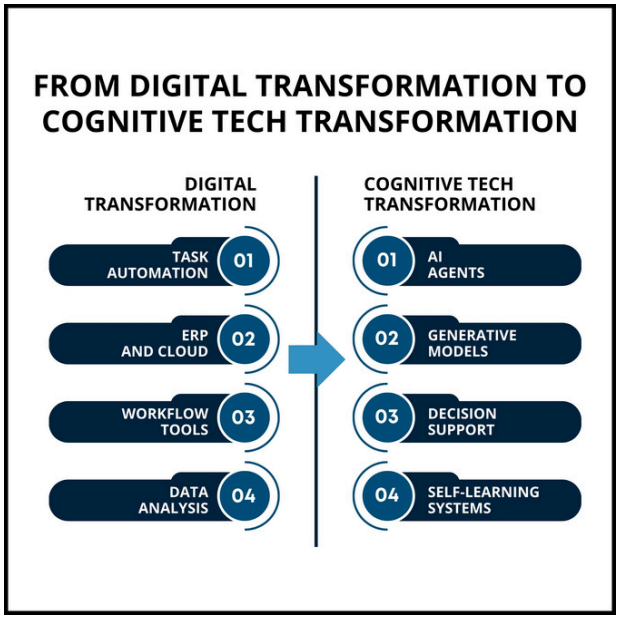
Launching an AI Transformation Journey

Last year, I accepted the challenge to establish an Artificial Intelligence Center of Excellence (AICOE) dedicated to transforming an organization using AI and emerging technologies. As I embarked on this strategic priority, it quickly became clear that building an effective AI infrastructure from the ground up required more than just digital transformation expertise—it demanded an entirely new operating model.

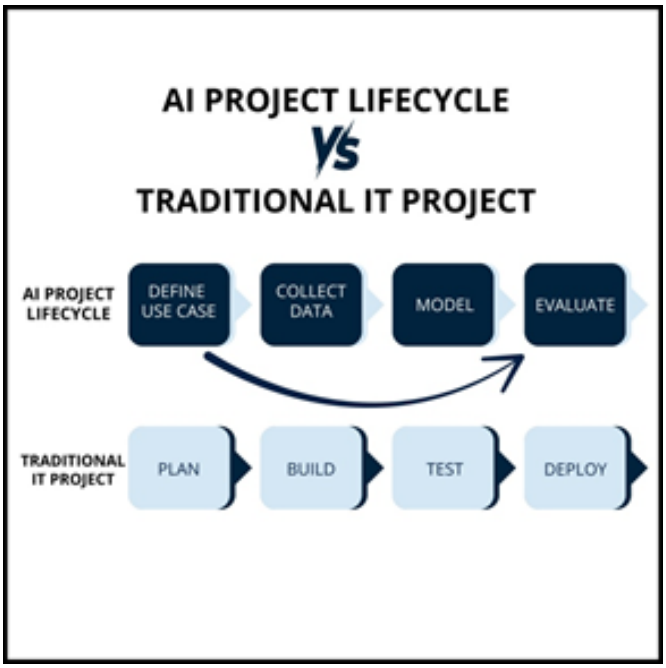
While leveraging my corporate digital transformation background, I began immersing myself in AI frameworks such as the ***European Union AI Act, the Biden Administration's Executive Order 14110 on Safe, Secure, and Trustworthy AI Development (rescinded on January 23, 2025), NIST AI Risk Management Framework, ISO/IEC 42001 AI Management Systems Standard, European Union General Data Protection Regulation (GDPR), and Google's IDC Chief Artificial Intelligence Officer (CAIO) Playbook.*** Additionally, I completed numerous courses and attended webinars by Gartner, Google, IBM SkillsBuild, Microsoft, AWS Skill Builder, IEEE, and PMI, among others. Each provided insights into responsible and structured AI adoption, particularly relevant for highly regulated organizations.

Realizing the Cognitive Shift

Initially, I presumed my experience in traditional areas like project, change, vendor, governance, risk, stakeholder management, and strategic planning would suffice. This journey revealed something essential: traditional digital transformation focuses on task automation—but stops short of embedding true intelligence into systems. Recognizing the distinction between automation and cognitive technologies was my first major realization. AI transformation is not solely a technological shift—it requires a new mindset, supported by ongoing education in cognitive technologies.



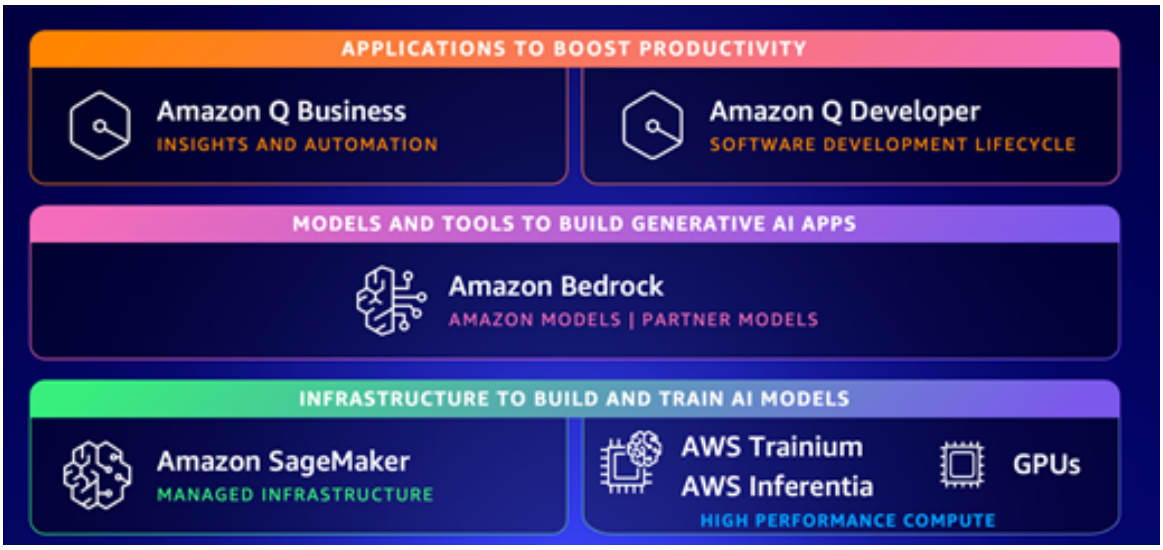
For example, while I've long relied on the Project Management Body of Knowledge (PMBOK) framework—along with both Waterfall & Agile methodologies—for managing traditional cloud-based projects, I quickly recognized that AI initiatives require an added dimension. According to Cognilytica, developers of the Cognitive Project Management for AI (CPMAI) framework, cognitive technology projects necessitate not only Agile practices but also a fundamentally data-centric approach. Unlike traditional models, once the business objective and organizational challenge are defined, the process shifts immediately to data comprehension, preparation, and modeling—followed by model evaluation and operational deployment. This was a notable departure from conventional practices, yet entirely appropriate given that AI projects are driven by complex datasets, layered architectures, and rapid iteration.



Understanding AI in Business

Further along the journey, I encountered a key challenge: understanding the intricacies of enterprise-level AI technologies—highlighting the need for strategic decision-making, rigorous vendor evaluation, and alignment with organizational priorities to ensure responsible and scalable adoption.

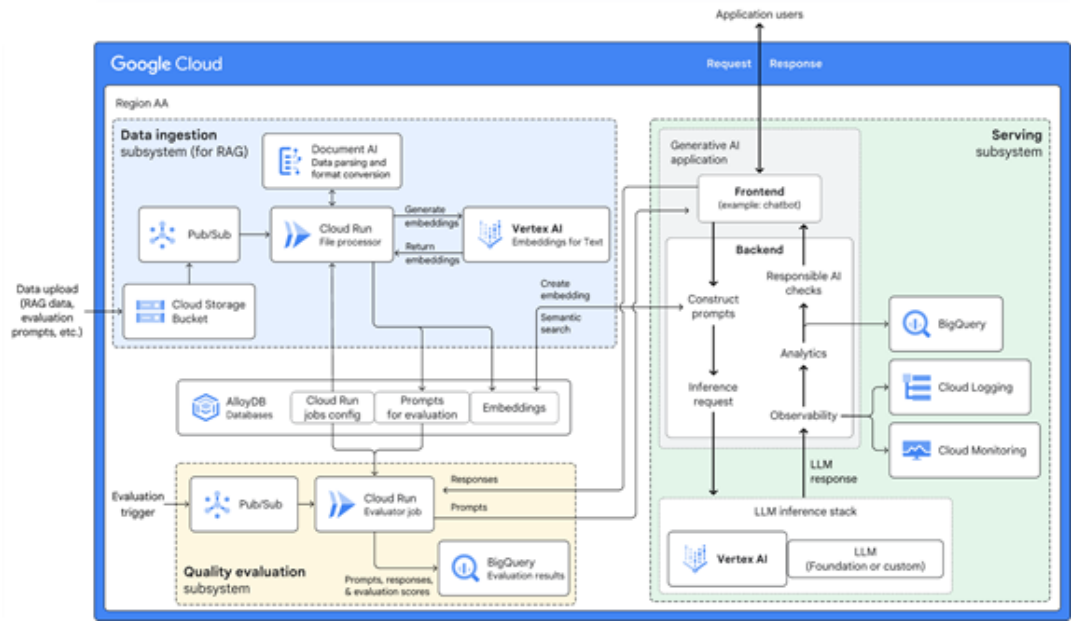
Like many executives, my initial experience with AI had been consumer-oriented tools such as ChatGPT, Claude, Gemini, and Mid-Journey, just to name a few. However, participation in Amazon Web Services (AWS), Salesforce, Microsoft and NVIDIA GTC conferences dramatically highlighted my enterprise knowledge gaps. Unlike consumer AI applications, enterprise AI platforms comprise complex, multilayered technology stacks. AWS, for instance, offers generative AI capabilities structured into distinct layers: application-level solutions to boost productivity, middleware platforms like Amazon Bedrock for Generative AI development and partner models, and foundational infrastructure like Amazon SageMaker for model training and deployment.



According to AWS, Amazon Bedrock is a fully managed service providing access to high-performing foundation models from 12 leading AI companies through a single API, enabling the creation of generative AI applications. Primary use cases include improving customer experiences (i.e., chatbots, virtual assistants, personalization), enhancing productivity (i.e., employee assistant, code generation, automated report generation, content creation), and accelerating growth (i.e., document processing, data augmentation, supply chain optimization). For those interested in learning more, AWS offers an ***Amazon Bedrock Getting Started*** course. Keep in mind, Generative AI is merely one of numerous domains within the broader AI landscape.

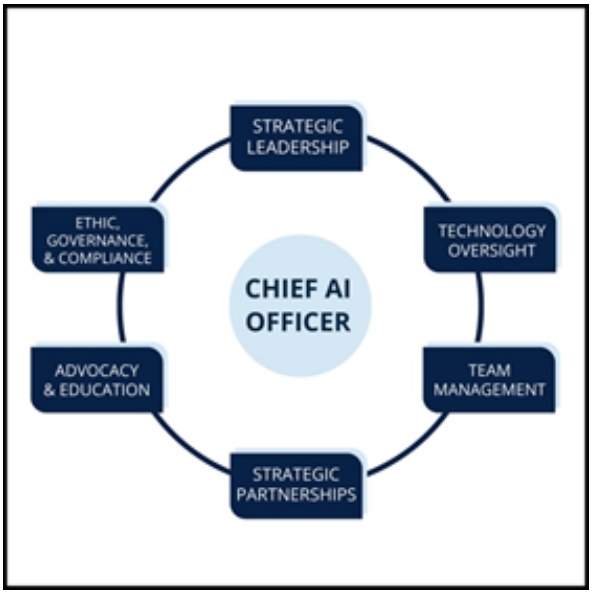
Exploring the AI Tech Stack

The review of multiple vendor proposals revealed notable variations in technology stacks across providers. I had the task of evaluating vendors for an AI customized solution to address a very simple use case that aligned with the organization's business goals. I noticed immediately that the solution architecture was slightly different, which included a cloud platform, user interface application, database application. For example, Google Cloud offers the Vertex AI solution architecture encompassing front-end, back-end, LLM inference stack, database, and dedicated AI processing (refer to diagram below). It quickly became clear that staying current with evolving AI technologies required ongoing education—not merely one-off training sessions. The blend of cognitive and non-cognitive technologies prompted the need for deeper education to understand the stack's diverse components.



Leveraging the IDC CAIO Playbook

Over time, I assumed the responsibilities typical of a Chief AI Officer (CAIO)—shaping strategy, ensuring governance, overseeing technology, and preparing the workforce. According to the article published by IBM titled ***What is a Chief AI Officer?*** "A CAIO is an executive role within an organization focused on overseeing the development, strategy and implementation of AI technologies. ***What does a CAIO do?*** The CAIO plays a critical role in guiding the organization through the complexities of AI adoption, ensuring that AI technologies are used effectively and responsibly to encourage business growth and innovation. This breaks down across several categories of responsibility."

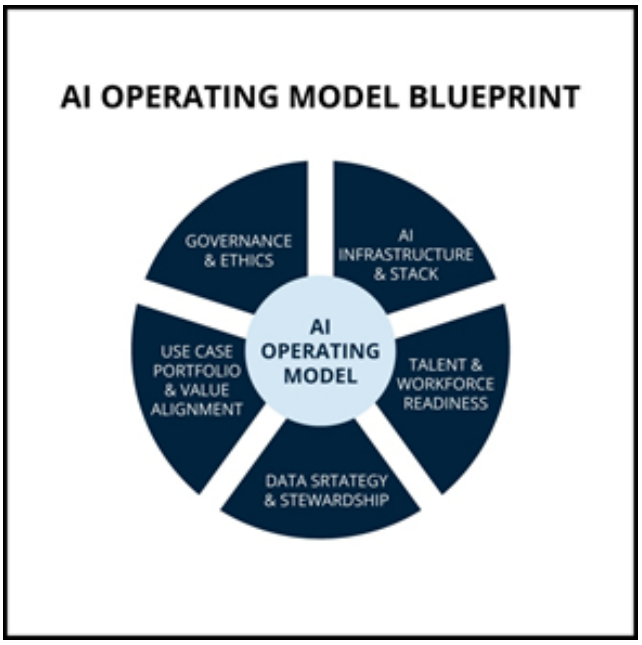


Recognizing these complexities, I revisited the IDC CAIO Playbook, which became my compass for navigating the intricacies of AI implementation. The initial step involved conducting a thorough AI inventory within the small organization. Fortunately, few AI systems existed, minimizing immediate complexity. Subsequently, staff were engaged through targeted surveys to evaluate current patterns of AI usage—revealing moderate adoption levels with minimal associated risk. These findings offered valuable guidance for navigating regulated environments where privacy and data security are paramount. As a foundational step, the AI Center of Excellence (AICOE) prioritized engaging departmental leaders to foster an AI innovation culture—equipping them with the knowledge and tools to champion responsible adoption across the organization.

To reinforce AI learning among departmental leaders, the AICOE introduced a series of webinars, role-aligned training sessions, product demonstrations, and expert panel discussions covering topics such as ethical AI, algorithmic bias, human-centered design, and practical use cases. Building on this foundation, over 100 professionals from various departments were trained on Responsible GenAI usage and Algorithmic Bias. Training was reinforced with internal guidance to support safe, ethical, and effective application of GenAI tools across the organization.

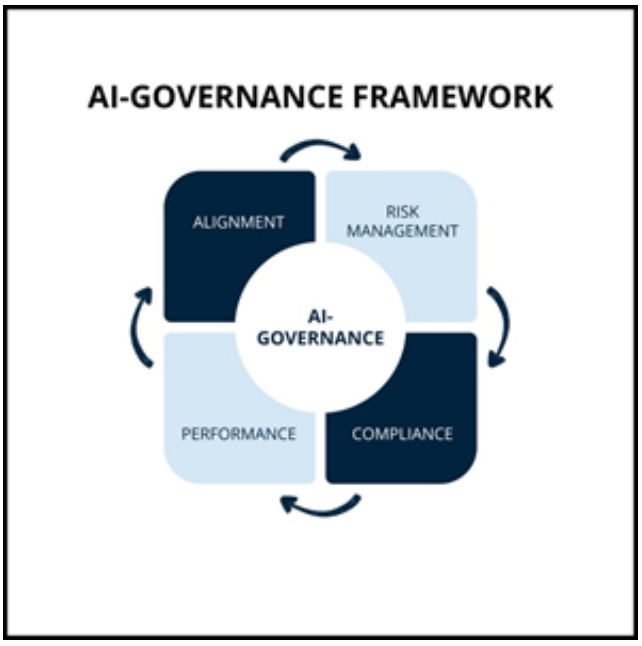
Applying a Strategic AI Framework

Guided by the IDC CAIO playbook, I further explored four strategic actions essential for comprehensive AI adoption: assessing AI maturity, managing risks and compliance, developing an AI-ready workforce, and investing strategically in AI innovation. Though tailored for federal entities, the framework effectively illuminated the organization's maturity stage: Ad Hoc. This foundational understanding informed subsequent strategies, beginning with establishing an effective AI operating model infrastructure.



Conducting Comprehensive AI Governance Assessments

Prior to deploying the AI solution, I used Info-Tech Research Group's AI Governance Assessment tool to identify significant capability gaps highlighted in a clear, actionable dashboard. Specifically, areas such as third-party risk, stakeholder feedback mechanisms, organizational culture, human oversight, accountability, and governance policies emerged as high-priority concerns. Coupled with Info-Tech Research Group's AI Risk Assessment tool, this comprehensive evaluation ensured robust preparedness, despite an initial "no impact" score due to no active AI deployments.



One often-overlooked dimension in evaluating AI solutions during procurement is the governance architecture already embedded by vendors. For example, Amazon Bedrock Guardrails offer enterprise-grade safeguards—such as hallucination detection, topic blocking, harmful content filtering across text and images, and automated redaction of personally identifiable information (PII). Built-in governance controls play a vital role in aligning vendor selection with organizational compliance and risk management priorities. Such features demonstrate a proactive approach to responsible AI deployment in enterprise environments. Governance must extend beyond policy frameworks and be embedded directly into the technology stack. Responsible AI is not merely a leadership directive—it is a technical imperative.

Lead the Shift or Be Disrupted

As this journey unfolds, one overarching lesson remains clear for all executives: AI transformation is a strategic imperative, not a future option. The speed of technological evolution demands immediate action—continuous learning, structured assessments, and proactive governance. The AI moment is now; leaders who delay risk lagging in a rapidly advancing landscape.

Over the past seven months, this journey has been nothing short of transformative—requiring a shift in mindset towards continuous upskilling, and a deep engagement with strategic partners, governance stakeholders, and operational leaders. What began as a focused initiative has evolved into a full-spectrum leadership mandate at the intersection of technology, ethics, and enterprise change.

The World Economic Forum's ***Future of Jobs Report 2025*** reinforces this urgency, forecasting a surge in demand for AI-related skills and adaptive leadership across all sectors. For those at the helm, the path forward is clear: lead with intention—or risk being led by disruption.