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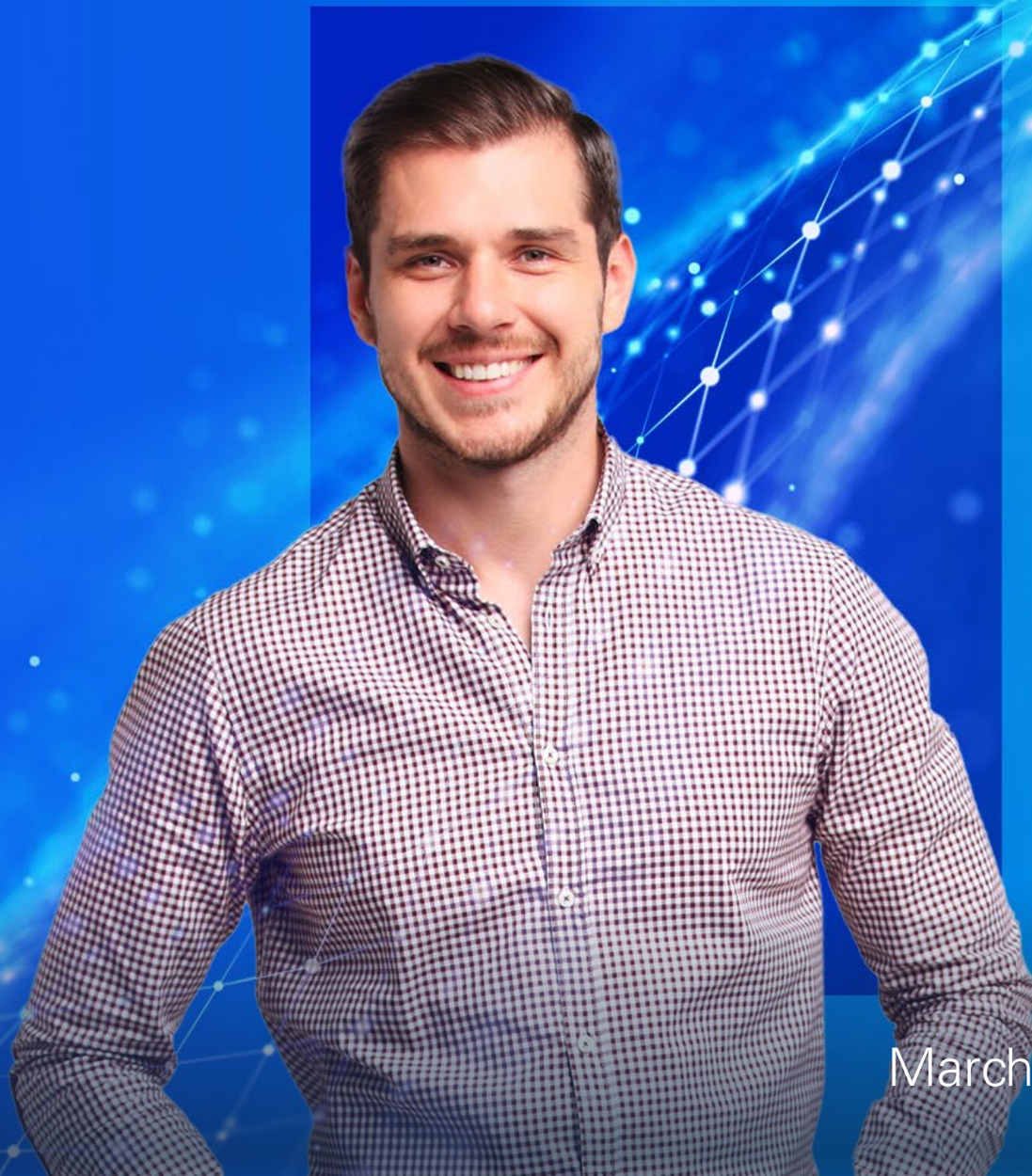
Voice of the CDAO



A recurring conversation with CDAOs on the modern data-driven enterprise

March 2026

Driving AI value with AI-ready data products and knowledge engineering

In the modern data-driven enterprise, chief data and analytics officers (CDAOs) are navigating a rapidly evolving landscape, as highlighted in our recurring conversation with CDAOs. This discussion centers on three pivotal themes. First, the definition of data products is maturing from simple datasets into sophisticated assets enriched with business, technical, and social metadata to meet the demands of AI. Second, knowledge engineering is emerging as a critical discipline to support AI, requiring the development of semantic layers, ontologies, and knowledge graphs to provide essential business context for AI agents. Data modernization is crucial for preventing AI "hallucinations" and enabling autonomous agent systems. Finally, there is an intense focus on value, compelling CDAOs to demonstrate tangible business outcomes from their initiatives, such as productivity gains and revenue generation. The conversation underscores a strategic shift toward product centricity, clear ownership, and providing a return on investment for data and AI projects.

On the CDAO agenda

Data products evolve

From their definition to AI requirements

Knowledge engineering

Semantic support for AI

Value focus

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Data products evolve

From their definition to AI requirements

CDAOs shared the challenge with defining data products for their respective companies. A core tenet of the product mindset is a relentless focus on the needs of the data consumer. A CDAO with a global company operating across food, beverage, and health, remarked on their approach.

"Where we're seeing successes is evolving the scope and definition of data products because we're trying to make them contextual and deliver a sense of connection to the ultimate business community."

Another healthcare-focused CDAO defines data products for how well they serve users. "We see data products as an asset that a user can walk up to and get the context needed to begin using it immediately."

The topic of context leads naturally to how data products are evolving with AI. Data products that used to be simple containers of data are becoming sophisticated packages of data, plus the business knowledge required to understand and use the data.

Danielle Beringer, a principal in the data modernization practice at KPMG, articulates the best definition of data products for the agentic era. "We consider the data product to be the payload of data itself and then that beautiful wrapper of business metadata, technical metadata, and now social metadata, which represents the utility."

With a more robust AI-ready definition of data products, is even calling them products still appropriate? A successful data product strategy is less about technology and more about a new way of thinking—one that prioritizes the consumer, assigns clear ownership, focuses on value, and treats data with the same discipline and customer-centricity as any other product in the company's portfolio.

"Our data products are managed globally, centrally, and available for everyone to consume," shared the CDAO of a consumer products company. "We want consistency, accuracy, and scalability."

Without question, AI is pushing data products to become intelligent, self-describing assets that are designed to be consumed by machine. It's the new definition of data products. This will require a new level of sophistication in how data is managed and enriched, with a strong focus on providing the business context that AI needs to thrive.

"Be the organization that deploys AI-ready data products."

—Matteo Colombo, KPMG, Global Leader for Cloud, Data, AI

Knowledge engineering

Semantic support for AI

CDAOs are interested in learning more about the critical role of knowledge engineering, a discipline that enables modernized data infrastructure so agents, not just humans, can interpret data. Pete Irwin, leader of the engineering group at KPMG, put it this way.

"If you feed raw data to an agent without the necessary context or business details, you're likely get hallucinations. A human can look at a spreadsheet and infer knowledge of their company. Agents can't do that."

As CDAOs work on modernizing their data infrastructures to produce AI-ready data, knowledge engineering becomes imperative. It has three main components: ontology is like the business dictionary that represents business concepts, their definitions, properties, and relationships between them. A knowledge graph that acts like map connecting disparate data points from across different data silos, using the ontology as its underlying structure. The semantic layer sits between raw data and AI, using ontology and knowledge graph to convert technical data into meaningful business concepts that an AI agent can understand.

For any organization leveraging AI at scale, knowledge engineering must become a core competency. The CDAO for a technology company exemplified this.

"We created a semantic layer to enable AI agents. As we continue to modernize our data, the quality, accuracy, readiness, and the context should improve."

Another CDAO mentioned a common challenge encountered with modernizing data. "We see more organizational value buried in file sharing sites, chat and emails. We're trying to incorporate those signals because that's where we see agentic workloads scaling."

Building the right data foundation and managing unstructured data are key issues facing CDAOs. AI and the push into agentic are forcing CDAOs and their organizations to evolve. The roadblock many CDAOs are encountering is the immaturity of the industry.

"We've been looking for almost a year now for a good semantic layer management tool," acknowledged a financial services CDAO. It's an evolving space and not mature yet."

Without question, AI is the transformative technology that is impacting every industry and business. As business pushes forward, building momentum, demonstrating ROI, and developing the internal skills needed to scale knowledge engineering, fortune favors the prepared.

"We shifted the mindset, federated the data, and quickly created a semantic layer to enable AI agents."

—CDAO, technology company

Value focus

Unlocking true value

CDAOs are under pressure to prove their initiatives are not just "science projects" but are delivering tangible business outcomes. Value also comes from encouraging widespread adoption.

A utility CDAO shared their view on unlocking true value. "It really comes down to the value that data brings and helps define data products and ownership."

The key is not to focus on just one type of value, but to present a comprehensive "portfolio of value" that speaks to different aspects of the business. CDAOs highlighted that different initiatives have different primary value levers. Productivity and efficiency gains are one type of value while risk reduction and improved decision-making represent another form of value to the organization.

One CDAO shared another value—an actual number for revenue generated from their team for the calendar year. For Beringer, who talks data with client organizations daily, this was music to her ears.

"When you can attribute a dollar amount or a number of human hours saved to the program, it helps take away the fear that people have about losing their jobs to AI. That feeling is, if I use an agent or a data product and my job only takes two hours when it used to take 40, what will happen to me?

A new normal among the rank and file will have to occur over time. Chief financial officers (CFOs) of large organizations are openly talking about productivity gains from AI in the range of 70 to 80 percent. That is a game change that will have a profound effect on the operating model and the employee base.

"The biggest challenge we are facing right now because it needs to go fast relates to the whole operating model," stated the CDAO of an energy company. "AI is moving rapidly, and we must balance it with what the company is focused on. You cannot go radical because you cannot disrupt the business."

The discussion shifted to more practical matters for CDAOs, specifically driving adoption. Added the CDAO with the technology company, "Our challenge is convincing IT teams to stop thinking of their jobs as running data pipelines and start thinking like product owners responsible for advancing their programs.

"Activation is a powerful concept because it's the engine that drives adoption."

—Danielle Beringer, KPMG, Partner, Advisory

Key considerations

- Don’t boil the ocean. Start with a high-value business problem that demands connecting data from different silos and would provide a clear benefit.
- Knowledge engineering isn’t an IT project; it’s a business and data collection that calls for a team of domain experts, data stewards, and AI specialists.
- Track realized value by scheduling a follow-up with the business owner three to six months later. Now compare actual impact against initial value hypothesis.

Additional resources

Why knowledge engineering is the key to AI agent value

The data products lifecycle

Sophisticated AI collaboration: An inside look at high-impact use

From automation to AI: Tech leaders are focused on ROI

Matteo Colombo
Principal and KPMG Global Leader for Cloud, Data & AI
KPMG LLP
T: 425-971-3259
E: matteocolombo@kpmg.com

Danielle Beringer
Principal, Advisory
KPMG LLP
T: 615-578-3227
E: dberinger@kpmg.com

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