IBM
Global Chief Data Office

Building a Chief Data Office?
Here are 3 Steps, 2 Strategies, and 1 Secret Weapon

By Inderpal Bhandari, IBM Global Chief Data Officer

The launch of IBM's Global Chief Data Office began in December 2015. Our roadmap was clear – a plan derived from my experiences and successes in prior CDO roles. Three steps, taken one at a time. Plus two supporting strategies that start simultaneously with Step One. And one secret weapon that emerged from our use of AI to address the sheer scope and scale of IBM's data. Let's start at the beginning.

Three steps to building a Chief Data Office

Step 1. Develop a clear data strategy
Start by asking a fairly straightforward question: what is your company's monetization strategy? This is key to a successful data strategy. The monetization strategy is how the enterprise derives revenue and where it is placing its strategic bets for the future. Then, craft a data strategy that will help accelerate that monetization strategy.

This is not about monetizing data per se; it is about supporting the business and how *the enterprise* plans to make money. At IBM, we are placing our bets on becoming the best-in-class AI and Hybrid Multi-Cloud business and on partnering with our clients to transform their enterprises. Our data strategy supports that focus even more so now with the acquisition of Red Hat.

Building your data strategy can take a while – approximately six months. Use that time as an opportunity to ensure you're meeting the needs of business units and functional areas across the enterprise; it's a critical part of building stakeholder buy-in.

Step 2. Execute enterprise-wide data governance and management systems
Accomplishing this step requires establishing the CDO as the trusted steward of enterprise data – from financial to personnel to client, and beyond. Armed with that trust, you can effectively facilitate and enforce consistent, enterprise-wide data governance and security measures. These activities include implementing end-to-end data acquisition, governance, security, and protocols. These work together toward an end-state including enterprise-wide acquisition, licensing, usage rights, access controls, data quality and validation standards, metering, and charge back.

At IBM, we created a dedicated Governance team comprised of world-class data governance specialists. Critical to this team's success was not only its expertise, but also its ability to collaborate broadly across the entire business. For example, its partnership with our Chief Privacy Office drove IBM to GDPR readiness in time for the European Union's deadline.

We also established a Data Officer Council, with representatives from across the enterprise, as our data strategy and governance decision-making body. This forum has been instrumental in our success, helping us understand their department's needs and priorities, and championing the data strategy out to their organization.

Step 3. Become the central data source and AI framework
Finally, focus on consolidating critical enterprise data and making it available as a service. Rapid integration of critical data into a single, consolidated data platform can bring unprecedented connection leading to new levels of insight. This is where data strategy really comes alive.

A unified data platform is *the fundamental enabler* of advanced AI solutions at your company. The platform consolidates the necessary data and advanced AI tooling to build game-changing, brand new business capabilities, driving both *efficiencies* and *top-line improvement*. The platform, with a focus on cataloging and reusing fundamental AI-related models and algorithms, can serve as a powerful accelerator for the infusion of AI across all business workflows and the proliferation of AI throughout the organization. What's more, it can reveal new business opportunities.

At IBM for example, we aggregate many sources of operational risk information on our platform and apply machine learning algorithms to predict and warn of supply chain risks across our company. In addition, we've been able to leverage that solution to help organizations like **DayOne Disaster Relief** deliver relief material in the aftermath of natural disasters more quickly and at lower cost. For profit companies also benefit from our Operations Risk Insights solution.

Two strategies: Start these from the moment you begin crafting your data strategy

Strategy 1. Build deep data and analytics partnerships
From Day 1, begin developing partnerships with data and analytics professionals both inside and outside your CDO. This helps build buy-in and drive adoption of your data strategy. At IBM, for example, we appointed special teams focused on rapid integration of critical client support data, including client feedback, client support actions, product offering details (including new acquisitions & their offerings) into the consolidated data platform. This allowed for far more efficient resolution of customer problems which then translated into higher customer satisfaction and in turn, NPS (Net Promoter Score) improvement.

From our experience, I believe there is great value in forging close partnerships between the CDO and each and every strategic Business Unit and functional office in the company. As such, we instituted a co-creation model for AI applications on our unified data platform. This model includes:

- Continuous alignment with functional domains and business units to understand their challenges and direction;
- Rapid build of AI solutions;
- Re-use of AI assets and data models (internal open source software model); and
- Leveraging the platform for rapid and efficient data integration, with security and trust.

Strategy 2. Develop and scale talent
Sourcing, growing and retaining talent with relevant data and AI skills are critical to delivering promised value. This effort must also begin on Day 1. Identify key roles you may need to source internally and externally depending on your organization, and continuously build a pipeline of candidates. Data engineering, dev ops and deep learning are particularly important skill sets in the IBM Global Chief Data Office.

Successful CDO teams often require both deep technical and business skill sets. This can result in the need to upskill and cross-train the existing workforce. IBM remains very focused on this, offering both deep and broad learning opportunities and education modules across Agile, Data Ops, Hybrid Cloud, IBM Design Thinking, and more.

Beyond training and education, keep talent engaged through collaboration and a nimble workplace. In IBM, teams work in a truly agile environment where multiple build-operate-service teams work autonomously and fluidly on the single, unified data platform.

One secret weapon

With a data strategy as your guide, a central data platform as your foundation, and a skilled team, you are ready to leverage data to accelerate your company's monetization strategy. To move even faster, I'd like to let you in on our not-so-secret secret weapon: Watson Knowledge Catalog with Automated Metadata Generation (AMG).

Metadata, or data about data, and metadata management are critical for effectively making all data visible and connected across many sources – internal, external, structured, and unstructured. It is how to ensure the data is organized, discoverable, reliable, standards compliant, and safe.

By automating this process, data professionals spend significantly less time discovering and organizing data – approximately 90% less time. AMG is a gamechanger. IBM has realized millions of dollars in productivity savings as a result. Though we developed AMG and its supporting deep learning algorithms for our own data ingestion and use, we now bring this capability to other companies. I believe this capability holds universal value, across all industries and for any company that is on a path towards Digital Transformation.

So, there you have it – essential guidance for helping you accelerate your transformation to a data-driven, AI-powered enterprise. IBM's Global Chief Data Office continues to accelerate the development and deployment of leading-edge data management and AI solutions for ourselves and for IBM's clients. We enjoy a growing list of successful projects, deliver remarkable functionality, keep the company in compliance with an ever-evolving set of rules around data, and deliver millions of dollars of value to the top and bottom line of the company. I hope my advice helps you do the same.

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About the author:

As the Global Chief Data Officer, Inderpal leads IBM's data strategy. His mission is to deliver CEDP as the single trusted, secure, multi-cloud data and AI backbone for the enterprise along with scaled use cases for transforming IBM into a Cognitive Enterprise, and to enable IBM clients to replicate the same. Inderpal was named CDO of the Year in 2017 by the CDO Club.