



## 6 Top CDO Priorities

The Chief Data Officer has quickly become an essential member of the C-suite.

In 2012, just 12% of Fortune 1000 companies had a CDO. Today, more than 67% of firms have a CDO, according to New Vantage Partners. CDOs are in place in more than half of U.S. states, with seven states planning to create the position.

Source: New Vantage Partners  
<https://www.forbes.com/sites/insights-intelai/2019/05/22/rethinking-the-role-of-chief-data-officer/?sh=515333c01bf9>

Source: U.S. state websites  
<https://www.governing.com/now/CDOs-Are-Growing-Now-More-Than-Half-of-US-States-Have-Them.html>

67%

Today, more than **67%** of Fortune 1000 companies have a Chief Data Officer, up from just **12%** in 2012.

Source: New Vantage Partners  
<https://www.forbes.com/sites/insights-intelai/2019/05/22/rethinking-the-role-of-chief-data-officer/?sh=515333c01bf9>



# Here are the 6 Top CDO Priorities

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Make the Move from Data  
Guardian to Business Strategist

2

Make AI a Team Sport

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Anticipate Change and  
Do More with Less

4

Extract More Value from Data  
Without Compromising Security

5

Build Stronger Relationships  
with Multiple Stakeholders

6

Elevate the Role  
of Operational Analysts



If data is the “new oil,” then CDOs are charged with knowing where to drill and how to extract the most value – safely.

The role of CDO is evolving rapidly. CDOs find themselves responsible for an ever-growing number of challenges, everything from data management, security, analytics, and governance to ensuring data quality and crafting data-driven business strategy.

However, all CDOs have one directive in common: the mandate to unlock value from the tremendous amount of data that the enterprise collects. Increasingly, CDOs are responsible for much more than data stewardship – they’re expected to turn data into a strategic asset. If data is the “new oil,” then CDOs are charged with knowing where to drill and how to extract the most value – safely.

The pandemic has made the job of CDO even more important, with data playing a key role to help companies respond to rapidly changing conditions. CDOs need to leverage advanced technology such as AI to navigate uncertainty, at a time when making the right business decisions can mean the difference between managing disruption and being overwhelmed by it.





## PRIORITY 1

# Make the Move from Data Guardian to Business Strategist

## Become a Data Storyteller

Now more than ever, CDOs must turn data into insights and insights into value. Organizations need CDOs to not only manage and govern data, but also to monetize data using technologies that generate actionable insights and tangible business benefits. CDOs must become data storytellers that result in better business decisions.

Turning data into an asset is a challenging task. Some CDOs lead enterprises that are still in the early stage of the analytics journey, relying on spreadsheets like Excel to organize and make sense of data. But spreadsheets are very limited when it comes to telling a story with data that leads to actionable business insights.

### BY THE NUMBERS

# \$97.9 billion

“IDC forecasts that spending on AI technologies will grow to \$97.9 billion in 2023—more than two and a half times the spending level of 2019.”

Source: IDC <https://www2.deloitte.com/us/en/insights/focus/cognitive-technologies/state-of-ai-and-intelligent-automation-in-business-survey.html>



*"AI has emerged as the critical enabling technology for CDOs to move from data management to data monetization."*

## Understand Your Data

Visual analytic tools like Tableau represent a more advanced phase in data analytics, enabling CDOs to see and understand their data in a way that spreadsheets simply can't. But these visual tools are essentially backward-looking. They're unable to peer into the future and make predictions and recommendations that lead to better data-driven business decisions.

Artificial Intelligence represents a transformative advance in unlocking value from data, enabling CDOs not only to understand current business conditions but also to make predictions about what will happen in the future and take actions based on those predictions. The goal of AI is straightforward: giving the right actionable information at the moment of making a business decision. AI is a critical enabling technology for CDOs to move from data management to data monetization.

## Keeping Pace with AI

AI capabilities and adoption are increasing at a record pace. IDC forecasts that spending on AI technologies will grow to \$97.9 billion in 2023—more than two and a half times the spending level of 2019. Businesses are using AI to increase revenue, cut costs, improve operations and enhance the customer experience; some even are developing new business models based on AI insights.

Gartner predicts that by 2023, 40% of development teams will be using automated machine learning services to build models that add AI capabilities to their applications, up from less than 2% in 2019. In 2021, CDOs will need to leverage advanced analytical technologies in order to help their companies manage uncertainty and then be well positioned to thrive in a recovery.

## CDO Recommendations

More than ever, CDOs are being asked to turn data into insights and revenue, not just manage and govern data. Work on becoming a better data storyteller to promote initiatives across departments and increase buy-in.





## PRIORITY 2

# Make AI a Team Sport

## Democratize AI

CDOs must democratize AI in a secure and scalable manner in order to be successful. For AI to be adopted, everyone has to have a say in the process. Effective AI promotes collaboration across business groups, IT and data science teams.

Businesspeople who use Excel, Tableau, Salesforce, and other enterprise applications must be empowered to build and leverage predictive models in those tools without needing to have formal data science skills. Unless AI is fully integrated into the business, it has little value. AI predictions and recommendations must flow seamlessly into business processes.

## BY THE NUMBERS

# 23%

A 2020 McKinsey study found that only **23% of surveyed companies had cross-functional teams** that worked together on AI projects.

Source: McKinsey <https://www.mckinsey.com/business-functions/mckinsey-analytics/our-insights/accelerating-analytics-to-navigate-covid-19-and-the-next-normal>



*"For AI to be successful, everyone has to have a say in the process."*

## Deep Collaboration

This deep collaboration results in augmented intelligence, in which human domain expertise combines with AI data insights. AI must empower humans to overlay adjustments in business assumptions on top of what the AI has learned, creating a powerful engine for informed decision making.

According to a survey of 1,500 firms in a range of industries by the Harvard Business Review, the biggest performance improvements come when humans and smart machines work together, enhancing each other's strengths. The Harvard study concluded, "Companies must develop a solution through co-creation – having stakeholders envision how they might collaborate with AI systems to improve a process."

## Cross-Functional Teams

Unfortunately, many companies still struggle to collaborate across functions. A 2020 McKinsey study found that only 23% of surveyed companies had cross functional teams that worked together on AI projects. Democratization is essential in order to put AI into the hands of the entire business team and make it an integral part of the organization.

With the emergence of AI platforms that automate the entire lifecycle of an AI project, businesses can quickly build, deploy, and manage AI applications to transform their operations. CDOs must lead the effort to involve multiple stakeholders in AI projects early and often in order to reap the full benefits of AI.

## CDO Recommendations

Give more people a say in the creation and adjustment of AI. One size does not fit all. Find new ways to promote collaboration across business groups, IT and data science teams.





### PRIORITY 3

## Anticipate Change and Do More with Less

### Leverage Predictive Analytics

In turbulent times, CDOs are being challenged to deliver measurable business value with limited resources and leaner budgets. CDOs need to leverage predictive analytics in order to anticipate change and react to it quickly rather than waiting for new data before making a decision.

Predictive analytics enable companies to anticipate and react to change through scenario planning, testing and learning. A McKinsey Global Survey found that success is more likely when CDOs “encourage all encourage employees to experiment with new ideas—for example, through rapid prototyping and allowing employees to learn from their failures.”

### BY THE NUMBERS

# 2.5 years

The **average tenure** of a CDO is currently only about two and a half years.

Source: World Economic Forum <https://www.weforum.org/agenda/2020/02/chief-digital-officer-cdo-skills-tenure-fail/#:~:text=The%20average%20tenure%20of%20a,up%20the%20CDO%20to%20fail.>



*Enterprises that fail to leverage AI now to manage change risk being left behind.*

## Manage Change

With businesses everywhere grappling with unprecedented uncertainty, the stakes have never been higher for companies and their employees. Any department that can't clearly show how it's helping the business optimally navigate uncertain times automatically becomes a natural target for cost cutting. For the foreseeable future, business functions will fall into one of two categories – value centers to be retained or cost centers to be eliminated.

Enterprises that fail to leverage AI to manage change now risk being left behind. According to a global survey by Deloitte of nearly 3,000 IT and line-of-business executives, 71% of AI adopters expect to increase their investment in the next fiscal year, by an average of 26%.

## Make Smart Cuts

CDOs that plan to do little more than a data lake project for 2021 are going to have a rude awakening – they'll quickly turn their team into a cost center that provides little or no value to the business. In many cases, that means CDOs will have to help their companies make smart cuts – or risk being cut themselves. As it is, the average tenure of a CDO is currently only about two and a half years.

CDOs that help their company make more money, save more money, or operate more efficiently will add value to the organization and become vital members of the crisis team.

## CDO Recommendations

Leverage AI and advanced analytics to conduct continuous scenario analysis and assumption testing. Be ready to answer a question that will be asked over and over in 2021: What-if?



#### PRIORITY 4

## Extract More Value from Data Without Compromising Security



### Balance Data

Increasingly, CDOs are being asked to perform a delicate balancing act – push the limits of data monetization while still ensuring that the data remains secure. That means finding new ways to balance data opportunities and data liabilities.

#### BY THE NUMBERS

# 62%

According to Deloitte, 62% of AI adopters see **security risks as a major concern**, but only 39% are prepared to address those risks.

Source: Deloitte <https://www2.deloitte.com/us/en/insights/focus/cognitive-technologies/state-of-ai-and-intelligent-automation-in-business-survey.html>



*CDOs are being challenged to balance data opportunities and data liabilities*

## Data Privacy

CDOs must ensure that third party analytics solutions don't take possession of data but can still provide valuable insights. Data privacy regulations such as GDPR have made it essential for CDOs to lead processes that give a clear view of exactly what dangers lurk in enormous amounts of data collected by the enterprise. They also need to train employees on privacy regulations and implement procedures for compliance with data privacy laws. It's no surprise that security is the most worrisome risk for AI adopters. According to a Deloitte survey, 62% of AI adopters see security risks as a major or extreme concern, but only 39% said they are prepared to address those risks.

## Bring the Algorithm to the Data

AI systems must ensure end-to-end proactive data security. Regulatory compliance and privacy policies will increasingly require data to always remain within secure cloud accounts without ever duplicating or moving across environments. AI platforms require built-in privacy and compliance with a distributed approach to security.

Cloud infrastructure has advanced so much in recent years that enterprises can train AI and conduct data analysis in their secure environment without ever moving data out of it. Previously, businesses had to bring their data to the algorithm. Now they can bring the algorithm to the data. They can conduct analysis and train AI without ever exposing their private data to a third party. That way, CDOs can turn a potential data liability into a business opportunity.

## CDO Recommendations

The delicate balancing act of extracting more value from data while not compromising security will be even more challenging in 2021. An improving economy creates more opportunities, but recent large data breaches are a stark reminder of looming security dangers. Keep your data close while looking for new opportunities.





## PRIORITY 5

# Build Stronger Relationships with Multiple Stakeholders

## Effective Communicator

Increasingly, the CDO must be an effective communicator across multiple departments. These days, CDOs could report to the CIO, CTO, CEO, COO or CFO. Most large data projects involve multidisciplinary teams and a wide range of technical and non-technical stakeholders, each of whom consume information in different ways.

## BY THE NUMBERS

# 27.9%

A survey by New Vantage Partners found that 72.1% of firms report that the CDO function is an unsettled role, while **only 27.9% describe the role as being successful** and established.

Source Business Wire: <https://www.businesswire.com/news/home/20200106005280/en/NewVantage-Partners-Releases-2020-Big-Data-and-AI-Executive-Survey>



*CDOs need to  
strengthen not only  
data expertise but  
also people skills.*

## Deep Understanding of Business Objectives

It's no wonder that many firms continue to struggle with the role and function of the CDO. A survey by New Vantage Partners found that 72.1% of firms report that the CDO function remains an unsettled role, while only 27.9% describe the role as being successful and established.

As a result, the CDO must adapt to this diversity of roles by conveying information in a concise and understandable way, considering multiple opinions and communicating effectively with team members and executives in language they understand. CDOs that report to the CIO generally work with people who have more advanced technical skills; CDOs that report to the CEO often must collaborate with people who lack technical knowledge but have a deep understanding of business objectives.

## CDO Recommendations

Work on developing multiple tactics and approaches to ensure buy-in for data initiatives across departments. 2021 will be a year when people skills are at least as important as data chops, if not more so. Digital transformation has to be embraced – even by those resistant to change.





## PRIORITY 6

# Elevate the Role of Operational Analysts

## Shortage of Skilled Data Scientist

Businesses are increasingly seeking ways to take advantage of data science and AI, in order to build an enterprise-wide digital culture. The trouble is, there continues to be an acute shortage of trained data scientists. According to the research firm QuantHub, there are 250,000 more job openings for data scientists in the U.S. than there are data scientists to fill them. Nearly 40% of surveyed companies named data science as the most difficult skill set to fill.

### BY THE NUMBERS

# 250K

There are currently **250,000 more job openings for data scientists** in the U.S. than there are data scientists to fill them.

Source: QuantHub

<https://quanthub.com/data-scientist-shortage-2020/>



*Data scientists are an important part of the AI process, but they can't – and shouldn't – do it all.*

## Elevate the Role of Operational Analyst

In the early days of AI, data scientists were solely in charge of building predictive models. While data scientists are still an important part of the AI process, they can't – and shouldn't – do it all. The best way to address the skills gap quickly and cost effectively is by elevating the role of operational analysts. Increasingly intuitive AI platforms are helping analysts inject important business insights directly into existing enterprise applications, such as Salesforce and Tableau.

That ensures that analysts can consider the business under different scenarios and conditions, greatly improving discussions with business owners about appropriate resourcing to drive KPI improvements. An increasing number of companies have already given operational analysts responsibilities that go beyond. according to a study by Ventana Research, 66% of analysts in major companies don't just discover what happened and why – instead they also prescribe what should be done.

## Add Value from Every Angle

CDOs are a key player in helping their organizations make the move from siloed work to interdisciplinary collaboration, where analysts in sales, marketing, finance, and operations work together to ensure a diversity of perspectives and prescribe necessary adjustments before they become problems. Every analyst and member of the business team must be given the tools to work in parallel and add value to AI without waiting for or blocking others. Elevating the role of analysts will help CDOs achieve what should always be the goal of any data initiative – sustained business impact and ROI.

## CDO Recommendations

Give more people a say in the creation and adjustment of AI. One size does not fit all. Find new ways to promote collaboration across business groups, IT and data science teams.





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