How D&A Leaders Are Shaping Generative AI Initiatives

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Initiatives: Data and Analytics Programs and Practices; Evolve Technology and Process Capabilitiesto Support D&A

> The recent rapid advancements in generative AI are reshaping strategic agendas and impacting the responsibilities of D&A leaders and their functions in diverse ways. This research discusses how data and analytics leaders are shaping GenAI initiatives and the key challenges they face.

Overview

Key Findings

- In the 2023 Gartner Generative AI Impact on D&A Survey, 92% of survey respondents are assessing, piloting or productionizing generative AI (GenAI) initiatives, validating that many organizations are actively trying to learn more about how GenAI can benefit their organization.

- While CEOs and executive leaders generally believe in the technology's potential, 64% of CIOs in the 2023 Gartner CIO Generative AI Survey believe that their CxOs are novices when it comes to GenAI. Hence, it's no surprise that 61% of D&A leaders reported that their biggest responsibility with GenAI is to educate executive leadership about GenAI benefits, risks and use cases.

- Given the educating role that D&A leaders play, managing stakeholder expectations is the biggest stressor for D&A leaders when it comes to GenAI (66%), and 80% of D&A leaders expect education and data literacy initiatives for GenAI to be a higher priority through 2024.

- Managing security, privacy, risk, legal and ethical implications is the second biggest stressor (61%), and 70% of D&A leaders expect collaboration with key risk stakeholders such as security and privacy officers to be a higher priority through 2024.

Strategic Planning Assumptions

- By 2025, 30% of executive leaders will lead teams composed of GenAI-enabled collaborators and, in response, must develop leadership capabilities that augment their strategic decision-making and execution ability.

- By 2026, GenAI will facilitate an increased use of other AI technologies (aside from GenAI) by 400%.

- By 2025, GenAI will account for 10% of all data produced, up from less than 1% today.

Survey Objective

The 2023 Gartner Generative AI Impact on D&A Survey was designed to understand how CDAOs' view the implications of generative AI for their roles and D&A function. The study was conducted online from 28 August through 8 September 2023, gathering 48 Gartner client respondents. Qualified respondents were from companies actively assessing, piloting or using GenAI. Respondents were targeted based on their leadership role in data and analytics.

We asked questions about:

- Primary responsibility for GenAI in the organization

- The role that D&A leaders play for GenAI

- Major pain points for D&A leaders related to GenAI

- Changes in their priorities related to GenAI for the next 12 to 18 months

Data Insights

Introduction

The 2023 Gartner Generative AI Impact on D&A Survey [1] highlights that there is no single approach to leadership for GenAI initiatives among surveyed organizations. One reason for this is that GenAI is a potentially transformative technology that has a fairly low barrier to adoption and wide applicability. Any ambitious CxO can credibly lay claim to GenAI use cases. The question remains about who is best to direct strategy and scale GenAI operations. This survey examines how CDAOs and other D&A leaders contribute to or lead GenAI efforts and the key challenges they face.

The survey results highlight that there is immense interest in GenAI: Only 8% of survey respondents are not currently considering GenAI use cases (see Figure 1). The hype [3] surrounding this technology has seen a massive rise in a short amount of time, which is reflected in how a vast majority of survey respondents (83%) are piloting and assessing potential use cases, and 9% already have use cases in production.

Figure 1: Current State of Genertive AI

Current State of Generative AI
Percentage of All Respondents
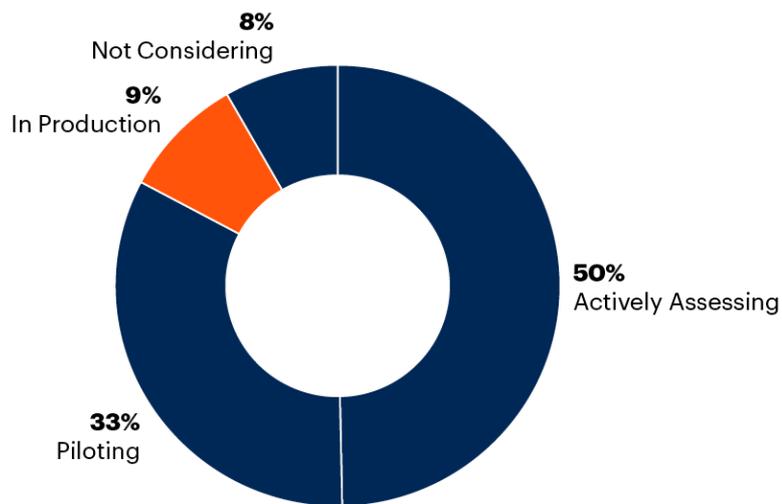
n = 48, all respondents

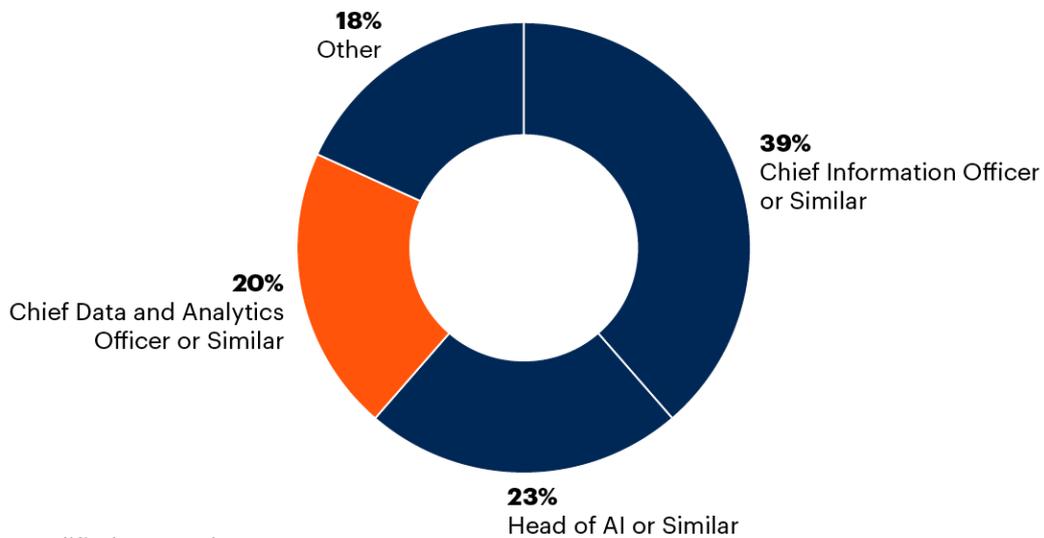Q. What best describes the current state of generative AI in your organization?
Source: 2023 Gartner Generative AI Impact on D&A Survey
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At the same time, the leadership responsibility of GenAI varies (see Figure 2). The primary responsibility for GenAI predominantly lies with CIOs (39%) or heads of AI (23%). Only 20% of survey respondents said that CDAOs have primary responsibility for GenAI in their organizations. Whether or not D&A leaders are primarily responsible for GenAI, they support it in multiple ways.

Figure 2: Who Is Primarily Responsible for GenAI in Organizations?

Who Is Primarily Responsible for GenAI in Organizations?
Percentage of Qualified Respondents

18%
Other

39%
Chief Information Officer
or Similar

20%
Chief Data and Analytics
Officer or Similar

23%
Head of AI or Similar

n = 44, qualified respondents

Q. Who is primarily responsible for generative AI in your organization?
Source: 2023 Gartner Generative AI Impact on D&A Survey
Note: 0% values have not been added to the chart.
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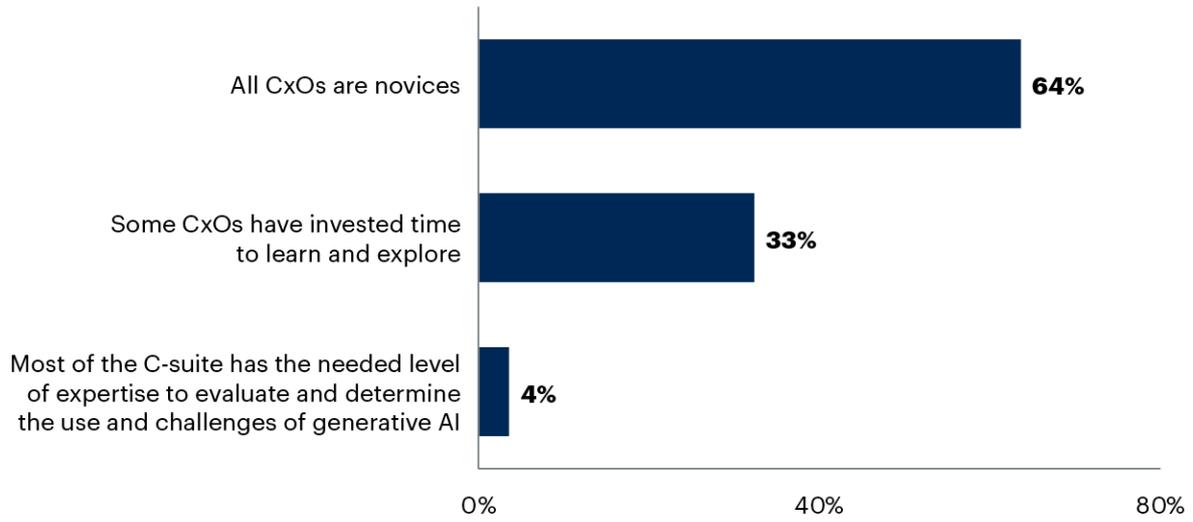
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How D&A Leaders Are Supporting GenAI

When it comes to GenAI, the most common task that D&A leaders execute is to educate CxOs about GenAI (see Figure 4). Forty-one percent of D&A leaders, particularly CDAOs, either own or provide executive sponsorship for GenAI initiatives. Considering only those survey respondents who are CDAOs, 83% own or provide executive sponsorship for GenAI, indicating the shift of this technology initiative from technology-centric to business-centric leadership.

Education and Managing Stakeholder Expectations

D&A leaders are largely focused on educating CxOs on GenAI benefits, risks and use cases because, as survey results indicate, CIOs perceive that CxOs are generally novices on the topic (see Figures 3 and 4). Managing stakeholder expectations is the greatest GenAI-related stressor for D&A leaders, which can be attributed to the low acumen among executive leadership (see Figure 5). Furthermore, identifying and/or communicating the business value of GenAI is the third-highest GenAI-related stressor.

Figure 3: C-Suite Level of Acumen on Generative AI

C-Suite Level of Acumen on Generative AI

All CxOs are novices — 64%

Some CxOs have invested time to learn and explore — 33%

Most of the C-suite has the needed level of expertise to evaluate and determine the use and challenges of generative AI — 4%

n = 80; CIOs

Q. What is the level of acumen on generative AI across the C-suite at your enterprise?
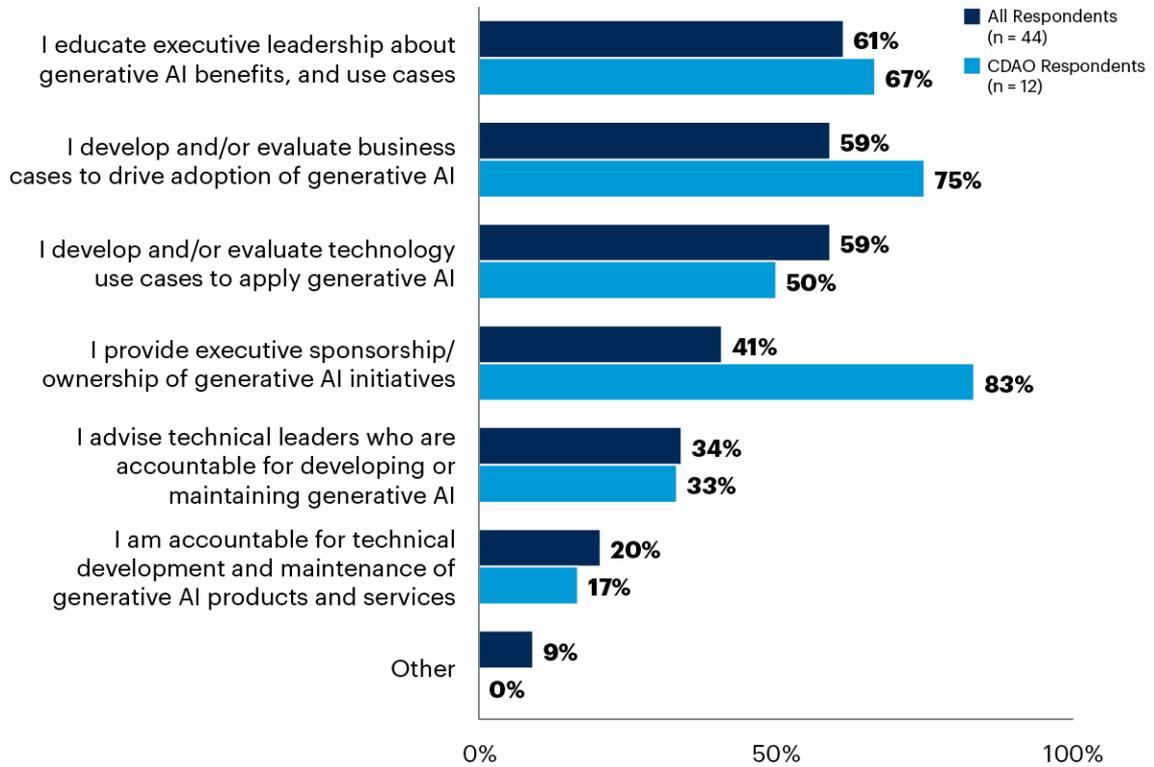Source: 2023 Gartner CIO Generative AI Survey
Gartner's Research Circle members and external participants
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Figure 4: Role of CDAOs in Generative AI Strategy/Initiatives

Role of CDAOs in Generative AI Strategy/Initiatives
Percentage of Qualified Respondents

Legend:
- All Respondents (n = 44)
- CDAO Respondents (n = 12)

Role	All Respondents	CDAO Respondents
I educate executive leadership about generative AI benefits, and use cases	61%	67%
I develop and/or evaluate business cases to drive adoption of generative AI	59%	75%
I develop and/or evaluate technology use cases to apply generative AI	59%	50%
I provide executive sponsorship/ownership of generative AI initiatives	41%	83%
I advise technical leaders who are accountable for developing or maintaining generative AI	34%	33%
I am accountable for technical development and maintenance of generative AI products and services	20%	17%
Other	9%	0%

Q. With respect to generative AI strategy/initiatives at your organization, what role(s) do you play?
Source: 2023 Gartner Generative AI Impact on D&A Survey
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Stressors for D&A Related to Generative AI
Percentage of Qualified Respondents

Managing Stakeholder Expectations	66%
Security, Privacy, Legal and/or Ethics Implications	61%
Identifying and/or Communicating Business Value	59%
Issues With Data (e.g., Quality, Availability, etc.)	52%
Lack of Talent Resources (e.g., Skills, Expertise)	52%
Lack of Effective Decision Process to Evaluate Generative AI Use Cases	45%
Hype/Public Pressure Forcing the Fast Speed to Meet Demands for Generative AI	39%
Lack of Budget for Generative AI	32%
Lack of Authority or Mandate From Executive Leadership for Generative AI	18%
Lack of Influence Over C-Suite Decision Making	11%
Other	2%

n = 44, qualified respondents

Q. Which of the following stressors related to Generative AI most impact your role?
Source: 2023 Gartner Generative AI Impact on D&A Survey
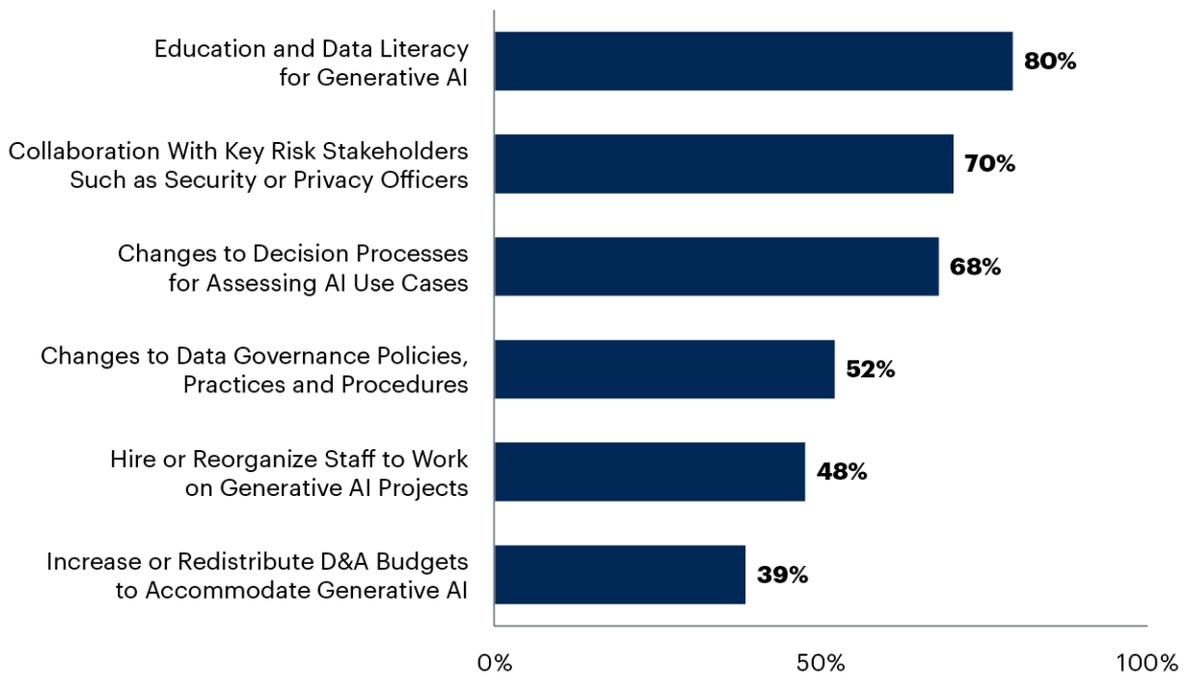802362_C

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Use-Case Evaluation and Selection

The next most prominent role for D&A leaders in GenAI is to develop and/or evaluate business use cases to drive the adoption of and apply the technology (59%), as shown in Figure 4. Use-case development can be challenging for multiple reasons, including the need to collaborate across key risk stakeholders, such as security and privacy officers. Seventy percent of survey respondents indicate that these types of collaborations will be a higher priority through 2024 (see Figure 6). Risk concerns pose a major issue: Security, privacy, legal and/or ethical implications are the second-highest GenAI-related stressor for D&A leaders (see Figure 5).

Although developing and/or evaluating business use cases for GenAI is a prominent role that D&A leaders play, 45% of survey respondents report that their organization lacks an effective decision process to evaluate GenAI use cases (see Figure 5). Not surprisingly, 68% of survey respondents say that changes to decision processes for assessing AI use cases will be a higher priority through next year, as shown in Figure 6.

Figure 6: Increasing Priorities for D&A Leaders Over the Next 12 to 18 Months

Increasing Priorities for D&A Leaders Over the Next 12- to 18 Months
Percentage of Qualified Respondents

Priority	Percentage
Education and Data Literacy for Generative AI	80%
Collaboration With Key Risk Stakeholders Such as Security or Privacy Officers	70%
Changes to Decision Processes for Assessing AI Use Cases	68%
Changes to Data Governance Policies, Practices and Procedures	52%
Hire or Reorganize Staff to Work on Generative AI Projects	48%
Increase or Redistribute D&A Budgets to Accommodate Generative AI	39%

n = 44, qualified respondents

Q. How do you expect generative AI to change the D&A function's priorities over the next 12-18 months compared to the previous 6-12 months?
Source: 2023 Gartner Generative AI Impact on D&A Survey
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Technical Leadership

The least common roles for D&A leaders in supporting GenAI are advising technical leaders (such as software engineering leaders and infrastructure and operations leaders) and holding accountability for the technical development and maintenance of GenAI products and services. However, at the time of the survey, 50% of respondents were still actively assessing and not yet piloting or productionizing GenAI solutions.

D&A leaders may increase their involvement in technical leadership as the stages of GenAI projects advance within organizations. Furthermore, the lack of talent resources (e.g., skills and expertise) is a point of stress, and hiring or reorganizing staff to work on GenAI projects will be a higher priority for 48% of organizations throughout 2024.

Although it is assumed that D&A leaders would have data issues as their primary concern, data issues was the fourth pain point for our respondents (52%). The lack of budget for GenAI is less of a pain point (32%); 39% of respondents plan to increase or redistribute D&A budgets to accommodate GenAI over the next 12 to 18 months.

Key Take-Aways

The D&A leader's role in GenAI is distinctive from other business executives. They are key players but generally not responsible for providing sole executive sponsorship. While D&A leaders are involved in multiple ways to foster GenAI in their organization, the responsibility for pilots and deployment of GenAI resides elsewhere. D&A leaders generally focus on spreading education about GenAI to executive leadership, and D&A leaders are challenged with managing stakeholder expectations and communicating business value. D&A leaders are stressed by risk implications associated with GenAI more so than data quality or budget allocations. In the upcoming year, D&A leaders will plan to focus on expanding data literacy and collaborating with key risk stakeholders.

Appendix

Table 1: 2023 Gartner Generative AI Impact on D&A Survey — Respondents

Job Title ↓	Number of Respondents ↓	Percentage of Respondents ↓
Chief Data and Analytics Officer	12	27%
Head of Analytics & Business Intelligence (BI)	11	25%
Head of Data Science & AI	6	14%
Head of Data Management	6	14%
Head of D&A Governance	2	5%
Head of Enterprise Architecture	3	7%
Others	4	9%

Source: Gartner (October 2023)

Evidence

[1] **2023 Gartner Generative AI Impact on D&A Survey.** The research was conducted online from 28 August through 8 September 2023, gathering 48 Gartner client respondents. Qualified respondents were from companies that are actively assessing, piloting or using generative AI. Respondents were targeted based on their role in data and analytics. Disclaimer: Results of this study do not represent global findings or the market as a whole, but reflect the sentiments of the respondents and companies surveyed.

[2] **2023 Gartner CIO Generative AI Survey.** This survey was conducted online from 16 May through 15 June 2023 to get a baseline on how CIOs are thinking about generative AI and what they think their role will be. In total, 80 CIOs participated. Seventy-six were members of Gartner's CIO Research Circle, a Gartner-managed panel, and four were from an external survey link shared via social channels and analyst contacts. Research Circle participants were from North America (n = 41), EMEA (n = 21), Asia/Pacific (n = 8) and Latin America (n = 4). Disclaimer: The results of this survey do not represent global findings or the market as a whole, but reflect the sentiments of the respondents and companies surveyed.

[3] In Gartner's Hype Cycle for Artificial Intelligence, 2023, generative AI is at the Peak of Inflated Expectations.

Recommended by the Author

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A Generative AI Playbook for CDAOs

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Toolkit: Discover and Prioritize Your Best AI Use CasesWith a Gartner Prism

Tool: Enterprise Use Casesfor ChatGPT

AI Design Patterns for Generative AI and Augmented Analytics and BI

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