Data and Analytics Leaders: Rewire Your Culture for an AI-Augmented Future

Analyst(s): Andrew White

Data and analytics leaders are expected to deliver sustainable, repeatable business value from increased investments in data, analytics and artificial intelligence. To meet these expectations, D&A leaders need to rewire their organizational culture for an AI-infused future — starting now!

Opportunities and Challenges

- How should you prioritize data and analytics (D&A) investment size, mix and sequence in order to drive the greatest business impact?

- How do you get started with a data literacy campaign, which is a new challenge for senior D&A leaders committed to creating a data-driven culture across the workforce?

- How can you leverage the best of "centralize all" and "everything at the edge" organizational models with hybrid models exploiting new data sources, new techniques and new ecosystems?

- How can you make the work of D&A governance business-driven and relevant, and how do you "make it stick"?

- How do you extract sustainable and repetitive business value from growing investment in artificial intelligence (AI) capabilities?

What You Need to Know

- It is essential to embed the work of D&A in a business context and you should stop talking about data, analytics, AI and technology, which shifts the focus from outcomes to technology.

- You will need to describe your D&A value proposition upfront and sell it directly to all stakeholders.

- Championing data literacy and crafting a clear case for change should come before pursuing implementations.

- Adopting a portfolio approach will help to prioritize your various D&A investments.

- Working with your peer business leaders will make sure you put the most important work of D&A in the most appropriate place in the organization.

- Data and analytics governance should start with a focus on the least amount of data with the biggest business impact.

Insight from the Analyst

Rewire Your Organizations' Culture for an AI-Augmented Future

Andrew White — Gartner Distinguished VP Analyst

Simply put, we have more data than we know what to do with; we have limited budgets, time and resources; we struggle to find (and keep) the right talent; and AI and machine learning are being applied to drive business value. Technology vendors offer a wonderment of new solutions to problems we might not even know about. All the while boards of directors, CEOs and CIOs want more value and they want it yesterday. Does it ever change?

Despite the conditions we face, 2020 is a pivotal year with data and analytics. D&A and AI may have already peaked in terms of topical hype. As such, it is time to get down to business and start to take the actions that will put in place sustainable, repeatable behaviors that deliver on the promises made.

> Culture is seen as the greatest challenge to D&A success as far as CDOs and other senior data and analytics leaders are concerned.

Despite the promise of AI and ML, the greatest challenge of all is not data, or process, or technology — it is culture. Such technologies have promised automation galore and insight discovery at the flip of a switch. But culture continues to impede our ability to achieve the promise of a data-driven enterprise with automation galore and insight discovery at our fingertips. But business value is not yet rolling in. D&A leaders need to put critical touchstones in place today to ensure the right decisions are taken, in the right way, at the right time, and for the right outcome (see the Evidence section). This is the focus of this research. We highlight the critical touchstones you need to set up *now* in order to help rewire your culture so that you cannot just live in our collective AI-augmented future, but thrive in it too.

AI may be everywhere soon, but some preparation is needed to get value from it. That starts now!

Kind regards,

Andrew White

Executive Overview

Definition

When you try to make a decision, whatever your role in an organization, data is part of that effort. If you compare one piece of data to another, you are analyzing it. Every effort to improve that decision will necessarily include more data and more analysis. In digital business, every business moment is an opportunity to transform the relationship with and satisfaction of a citizen or customer — through a change in decision. That might require new insight, at the right time, in the right form, and as automated as possible. In other words, D&A drives every decision — strategic, operational or tactical — across the enterprise.

Figure 1. Data and Analytics Strategies Driving the Future

Data and Analytics Leaders
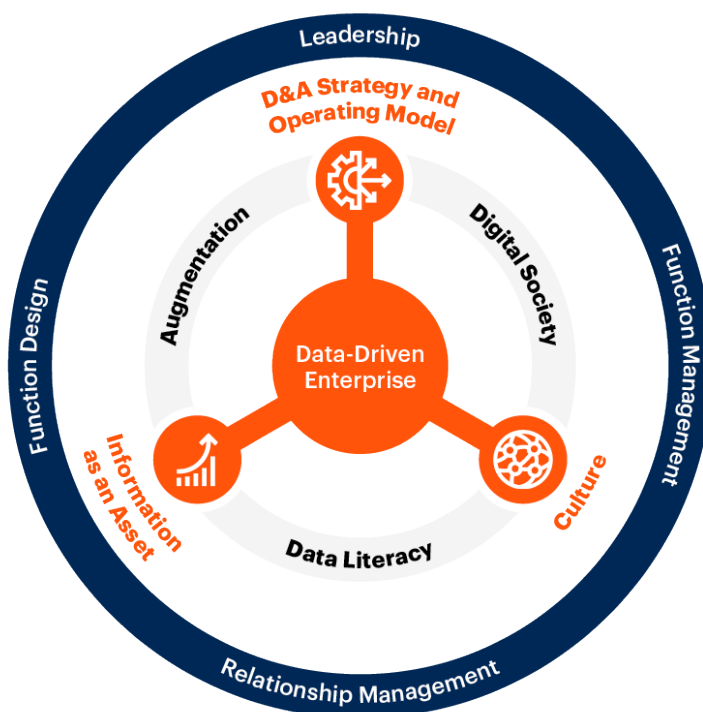
Source: Gartner

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Research Highlights

Leadership and Culture: Build the Resilient Organization

D&A is the linchpin of embedding insight and intelligence into every decision, every opportunity and every outcome.

That's the good news. Now the bad news — you must deliver value, now, all while the organization resists your efforts to create change. The reality is that being data-driven is misunderstood. It does not mean that every decision is automated. It means that insight is used to augment humans making decisions smarter, faster and more effective.

In a number of enterprises, data and analytics has moved outside of the IT department and into the functional business units. Hybrid roles — which marry business domain knowledge to D&A capabilities — will continue to predominate. CDOs and other leaders have an increasingly complex role. For instance, our research suggests that data literacy will be the single biggest determinant of a successful deployment of data, analytics and AI. As a result, the modern organization is a combination of different parts. It is a service center, a capability enabler, a competency developer, a community builder and a problem solver.

But the pressure is on. You have been spending on BI platforms and self-service analytics for some years. You tried that MDM program. More recently, your organization adopted cloud, and now you hear about multicloud. You have virtualized, integrated, harmonized, cataloged, profiled, warehoused, liked, and analyzed for ages. But are these investments always as successful as you would like? Do your business peers acknowledge their business value? Has success been assured? All too rarely.

What is needed is a new, bold, fresh way to think about, and do, D&A. We need to rethink how decisions are made, recognizing that AI will not fix everything. We need to reorganize where the work of D&A takes place so that the capabilities empower the right work, for the most value, for the most important business outcomes. We need to rewire our culture. We need to put in place the foundations — some you know about already — needed to assure sustainable, repeatable, business value and impact creation.

CEOs in all industries are turning to CDOs (and other data and analytics leaders) to build organizations of the future to meet and exceed business objectives.[2]

D&A leaders must lead from the front and build an organization that defines, delivers, and demonstrates value creation from data and analytics investments. D&A leaders need to drive the vision and strategy for their organizations, representing and fermenting what the business needs in terms of data, analytics and AI. Insight is provided on topics that are high on the agenda for

forward-thinking data and analytics leaders: skills development, closing talent gaps, building the right teams, formalizing the right roles, data literacy, diversity and ethics.

Related Research

"Leadership Vision for 2020: Data and Analytics Leader"

"Build a Data-Driven Enterprise"

"How to Make Data and Analytics Central to Your Digital Transformation Initiative"

"How Chief Data Officers Show Leadership in Improving Data Literacy and Fostering a Data-Driven Culture"

"10 Ways CDOs Can Succeed in Forging a Data-Driven Organization"

"CDO Success Factors: Culture Hacks to Create a Data-Driven Enterprise"

"How Data and Analytics Leaders Must Address Emotional Impacts to Foster a Data-Driven Culture"

"Your Data Culture Is Changing — Do You Need DataOps?"

"How CDOs Can Use Data Storytelling to Engage and Influence Stakeholders"

"Write a Winning Business Case for a Chief Data Officer"

"How CDOs Can Get Buy-In and Sell Data and Analytics to Stakeholders"

"Toolkit: Enabling Data Literacy and Information as a Second Language"

"Digital Ethics Enables Digital Value"

"Digital Ethics by Design: A Framework for Better Digital Business"

"AI Ethics: Use 5 Common Guidelines as Your Starting Point"

"How to Present Your D&A Program to the Board"

Business Outcomes and Strategy: Realize the Value

The majority of chief data officers (CDOs) are not formally measuring the business value of their information or data assets. Those that do achieve better organizational performance than their peers.[1]

Data and analytics remain very popular in terms of investment priorities, yet success in measuring and reporting the value from investments remains tangible at best. Our research provides insights into how to build a successful D&A strategy that is directly linked to the key business outcomes of growth, customer experience, monetization of D&A, risk mitigation and innovation.

Related Research

"Top 10 Data and Analytics Technology Trends That Will Change Your Business"

"How to Craft a Modern, Actionable Data and Analytics Strategy That Delivers Business Outcomes"

"How to Optimize Business Value From Data and Analytics Investments … Finally"

"Ignition Guide to Strategic Planning for Data & Analytics"

"Data & Analytics Strategy Workbook"

"Continuously Market-Tested Data & Analytics Strategy (UrbanShopping)"

"How Chief Data Officers Can Scale the Value of Data and Analytics by Working With External Service Providers"

"Predicts 2020: Data and Analytics Strategies — Invest, Influence and Impact"

"How Chief Data Officers Can Succeed by Driving Measurable Business Value"

"Creating Business Value With Multidisciplinary Data and Analytics COEs (Omicron*)"

"How to Reveal the Business Value of Imperfect Data With AI (Avon)"

"Data and Analytics Value Creation: Key Obstacles and How to Overcome Them"

"Five Ways to Use Metadata Management to Deliver Business Value for Data"

"Applied Infonomics: Why and How to Measure the Value of Your Information Assets"

"Applied Infonomics: Seven Steps to Monetize Available Information Assets"

"IT Score for Data & Analytics"

"Create a Chief Data Officer Dashboard to Measure Your Business Impact"

"Emerging Practices for a Data-Driven Strategy" (Webinar)

"Modernize Your Data & Analytics Strategy: A Panel Discussion" (Webinar)

"100 Data and Analytics Predictions Through 2023"

> By 2023, 30% of organizations will exceed data and analytics ROI by governing the least amount of data that matters most to their strategic goals.[2]

Every outcome, every decision and every action relies on trusted data. When data is untrusted, mayhem may ensue. But today's modern D&A governance effort is very different from what you are used to. Gone are big projects and end-to-end data focus. Gone are efforts to document *all* of your data before you start. What's "in" is adaptive efforts that seek to govern the least amount of data for the biggest business impact.

Related Research

"Data Governance Playbook"

"Ignition Guide to Building a Data and Analytics Governance Program"

"Design an Effective Information Governance Strategy"

"Use Adaptive Governance for Data and Analytics to Drive Digital Business Success"

"7 Must-Have Foundations for Modern Data and Analytics Governance"

"Toolkit: Build the Business Case for Data and Analytics Governance"

"5 Steps to Build a Business Case for Data and Analytics Governance That Even Humans Will Understand"

"Toolkit: Data and Analytics Governance Organizational Structures"

"Toolkit: Data and Analytics Governance Role Descriptions"

"Exclusion-Based Data Sharing Rights (FirstHarbor)"

"Business-Need-Driven Data Governance Objectives (FirstHarbor)"

"Value-Add Data Minimization (Northrop Grumman)"

"Data Dimension Prioritization Process (Clorox)"

"Dangerous Data — Can't Live Without It, Can't Live With It"

"Toolkit: How to Use the Gartner Data and Analytics Glossary to Boost Your Data Literacy"

"Build AI-Specific Governance on Three Cornerstones: Trust, Transparency and Diversity"

"The Role of Technology in Data and Analytics Governance"

AI, Data Science and Machine Learning: The Future Starts Now

Through 2021, 75% of AI projects will remain at the prototype level as AI experts and organizational functions cannot engage in a productive dialogue.

There is a minefield of complexity across advanced analytics, data science, AI and machine learning. All might add value to your organization, if you know where and how they should be applied. You need a plan, a strategy, an idea to articulate what outcome you are seeking. With those in place you can demystify AI and start to put solutions in place.

Related Research

"Artificial Intelligence Hype: Managing Business Leadership Expectations"

"5 Steps to Practically Implement AI Techniques"

"3 Types of Machine Learning for the Enterprise"

"Artificial Intelligence Maturity Model"

"How to Organize AI Talent"

"Decision Intelligence Is the Near Future of Decision Making: A Gartner Trend Insight Report"

"How to Operationalize Machine Learning and Data Science Projects"

"Market Guide for Text Analytics"

"Toolkit: How to Select and Prioritize AI Use Cases Using Real Domain and Industry Examples"

"AI Governance Spotlight: Early Lessons and Next Practices"

"Simple, Powerful Machine Learning Pilot (Iron Mountain)"

"How to Build Momentum for Machine Learning (ML) Initiatives (Iron Mountain)"

"How to Reveal the Business Value of Imperfect Data With AI (Avon)"

"How to Use AI to Create the Customer Experience of the Future"

"6 Executive Conversations to Win With AI"

"The Present and Future of Artificial Intelligence" (Presentation Deck)

"AI Ethics: Use 5 Common Guidelines as Your Starting Point"

"Practical Insights From Active Data Science Teams and Mature Machine Learning Strategists"

"Maximize the Value of Your Data Science Efforts by Empowering Citizen Data Scientists"

"Four Real-World Case Studies: Implement Augmented DSML to Enable Expert and Citizen Data Scientists"

"Improve the Machine Learning Trust Equation by Using Explainable AI Frameworks"

"5 Myths About Explainable AI"

"Top 10 Data and Analytics Technology Trends That Will Change Your Business"

Data and Analytics Everywhere: Drive Pervasive Outcomes

Adoption of data, analytics and AI programs across the organization is varied and often meets with different challenges, as well as targeted at different value propositions. Some efforts are centralized and operated by IT or a shared service and focused on productivity; some are distributed in the business units and focused on agility and innovation. You need both, in fact, in a hybrid form and you need to embed data literacy into the organization.

To drive organizational efficiencies and grow the business, data and analytics must be at the heart of the organization. It must beat at the same rhythm as finance, sales, marketing, supply chain and all other core business functions.

Related Research

"How to Create Data and Analytics Everywhere for Everyone: Top Insights for Digital Business"

"Where to Organize the Work of Data and Analytics"

"Toolkit: Chief Data Officer Job Description"

"5 Pitfalls to Avoid When Designing an Effective Data and Analytics Organization"

"Must-Have Roles for Data and Analytics, 2018"

"Why You Need to Rethink Your Data and Analytics Roles Now"

"Essential Capabilities That Your Data and Analytics Center of Excellence May Be Lacking"

"Organizing Your Teams for Modern Data and Analytics Deployment"

"How Augmented Analytics Will Transform Your Organization: A Gartner Trend Insight Report"

"How CDOs Can Use Data Storytelling to Engage and Influence Stakeholders"

"Augmented Analytics Feature Definition Framework"

"Augmented Analytics: Teaching Machines to Tell Data Stories to Humans"

"How to Organize AI Talent"

"Toolkit: Curriculum for Data Literacy Training Programs"

"Analytics Champions Recruitment Guide"

"Creating Business Value With Multidisciplinary Data and Analytics COEs (Omicron*)"

"Data & Analytics Organizational Models, Roles, and Responsibilities"

"Capability-Based Data and Analytics Talent (Stats NZ)"

"Data and Analytics Job Description Library"

Emerging Technologies: Disruption Is a Given

Harnessing innovative technologies to change the business and how we serve customers is the only choice for forward-looking leaders who want to see their organizations become disruptors. Standing still is not an option.

The compressed speed at which disruption is occurring requires data and analytics leaders to have formal mechanisms to identify technology trends and prioritize those with the biggest potential impact on their competitive advantage.

They should be added to your strategic planning, or if part of current plans, looked at in a fresh way based on the extent to which the trends enable your top business priorities.

This research reveals the more visionary and pioneering trends and aspects of D&A. We look at the growing convergence of augmented analytics (or augmented intelligence), which suggests the most advantageous approach is combining human intelligence with machine or artificial intelligence. This research is designed to deliver innovative approaches that will change your perspective by offering insights on the future of D&A in your organization.

Related Research

"Top 10 Data and Analytics Technology Trends That Will Change Your Business"

"Presentation: Top Technology Trends in Data and Analytics That Will Change Your Business"

"How to Make Data and Analytics Central to Your Digital Transformation Initiative"

Emerging Technologies and Trends

"Cool Vendors in IoT Data Exchanges and Brokers"

"Cool Vendors in Data Science and Machine Learning"

"Hype Cycle for Data Science and Machine Learning, 2019"

"Hype Cycle for Data Management, 2019"

"Hype Cycle for Data and Analytics Governance and Master Data Management, 2019"

"Hype Cycle for Analytics and Business Intelligence, 2019"

Peer Perspectives

Learn from your peers to help support decision making and leverage best practices. These peer perspectives provide a complementary view alongside Gartner's expert research.

Note: This content, which provides opinions and points of view expressed by community members, does not represent the views of Gartner; Gartner neither endorses it nor makes any warranties about its accuracy or completeness.

"Peer Connect Perspectives: Leveraging Data Analytics to Drive Business Growth"

"Peer Connect Perspectives: Measuring Success of a Data Governance Program"

"Peer Connect Perspectives: How to Define Data Ownership in an Organization"

"Peer Connect Perspectives: Finding the Right Approach to Formulating a Data Governance Policy"

"Peer Connect Perspectives: Challenges to Hybrid Cloud Deployment Amid Data Gravity"

"Peer Lessons Learned: Implementing Metadata Management Solutions"

Key Initiatives for Continuous Insight

All your initiatives are important, but some are mission-critical. Key Initiatives organize the vast Gartner resources around the projects and programs at the top of your list, helping you achieve demonstrable business results efficiently and cost-effectively. Key Initiatives represent how we deliver the ongoing insight throughout the year to help you tackle your top priorities. Be sure to track all Initiatives related to your top priorities.

"Data and Analytics Leaders"

"Analytics, BI and Data Science Solutions"

"Artificial Intelligence"

"Data and Analytics Strategies"

"Data Management Solutions"

Related Priorities

Priority	Focus
Data and Analytics Strategies	Enterprises need to create a strategy and operating model that maximizes business value while employing proven practices to exploit data and analytics assets internally and externally.
Analytics, BI and Data Science Solutions	Augmented analytics powered by AI, blurring boundaries between analytics styles, compelling cloud solutions and more collaborative analytics, define the next generation of analytics.
Data Management Solutions	The data management solutions initiative tracks, explains and advises on architectures, practices, technology trends and vendor solutions that help organizations manage data.

Source: Gartner

Related Resources

Webinars

Get actionable advice in 60 minutes from the world's most respected experts. Keep pace with the latest issues that impact business with both live and on-demand webinars for data and analytics leaders.

"Data & Analytics Leadership and Vision for 2020"

"Modernize Your Data & Analytics Strategy: A Panel Discussion"

"How Augmented Analytics Will Transform Your Organization"

"Data Ethics Enables Business Value"

"Key Trends in Data Management Solutions for Analytics"

"Data Storytelling: Engage Decision Makers With Data"

"Emerging Practices for a Data-Driven Strategy"

"Top 10 Data and Analytics Trends That Will Change Your Business"

"Data and Analytics Governance: What's Broken, and What We Need to Do to Fix It"

"Why Chief Data Officers Should Lead Digital Transformation"

"How Augmented Analytics Is Transforming Data and Analytics"

"Build Blockchain Into Your Data and Analytics Program"

"Data and Analytics Key Roles, Responsibilities, and Organization"

"Best Practices to Negotiate With Data and Analytics Vendors"

"What the Internet of Things Means for Your Data and Analytics Capabilities"

"Effective Data and Analytics Governance … Finally!"

"How to Put Data and Analytics at the Heart of Your Digital Platform"

"Digital Platforms: The Role Data and Analytics Plays in Their Success"

"Data Literacy: Foster Information as a Second Language"

Conferences 2020

Join us at one of our Gartner Data & Analytics Summits in 2020, where leaders can gain the skills needed to rewire their cultures for an AI-augmented future.

Leading organizations in every industry are wielding data and analytics as competitive weapons, operational accelerants and innovation catalysts.

New business models and sweeping technology change, including AI, are driving the need for a data-and-analytics-centric culture. Trust and ethics must be established and supported. Data literacy is an imperative. New behaviors and skills will be required. Creative thinking must be cultivated as a fundamental competency. Leaders must evolve their organizational culture by design to support and foster the creativity necessary to survive and thrive in these times of change.

Articles

"Scale the Value of Analytics"

"Gartner Top 10 Data and Analytics Trends"

"Analyst Answers: How IT Leaders Should Invest in Data and Analytics"

"Why Data and Analytics Are Key to Digital Transformation"

"Top 4 Data and Analytics Trends for Midsize Enterprises"

"Use Data and Analytics to Tell a Story"

"First 100 Days of a Chief Data Officer"

"CDOs Must Take the Lead to Improve Data Literacy"

"Build a Data-Driven Organization"

"Analyst Answers: How IT Leaders Should Invest in Data and Analytics"

Peer Insights

Gartner Peer Insights is a free peer review and ratings platform designed for enterprise software and services decision makers. Reviews go through a strict validation and moderation process in an effort to ensure they are authentic. Choose enterprise IT software and services with confidence. Read verified reviews from the IT community.

Browse Vendors

Browse Markets

Write a Review

Peer Connect

Peer Connect is a private community in which Gartner clients can exchange insight and advice on their mission-critical priorities.

Join the discussions occurring in the Data and Analytics forum, to ask questions and share answers on key initiatives.

Join the Gartner Research Circle and help to shape the future of the industry.

Evidence

[1] Gartner's Fourth Annual CDO Survey (see "Survey Analysis: Gartner's Fourth Annual CDO Survey — Key Capabilities That Enable Business Success")

[2] Gartner's 2020 Board of Directors Survey (see "Toolkit: Presentation for Key Findings From the 2020 Board of Directors Survey" [downloadable PowerPoint deck, Page 11])

This research is partly based on Gartner's 2019 Business Value of Data and Analytics Investments study, which was designed to understand sequencing of implementation, spending and ROI on D&A initiatives across the enterprise. The primary research was conducted online between 7 August and 30 September 2019 among 255 respondents in North America and Western Europe.

Companies were screened for implementation of minimum three D&A initiatives over the past two years.

Respondents were required to participate in the approval and tracking, reporting or measuring of the value of at least three D&A initiatives.

The study was developed collaboratively by Gartner analysts and the Primary Research Team.

Disclaimer: Results do not represent "global" findings or the market as a whole, but reflect sentiment of the respondents and companies surveyed.

Touchstone: A fundamental or quintessential part or feature.

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