

Fostering Data Literacy and Information as a Second Language: A Gartner Trend Insight Report

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Analyst(s): Valerie Logan

The prevalence of data and analytics capabilities, including artificial intelligence, requires creators and consumers to "speak data" as a common language. Data and analytics leaders must champion workforce data literacy as an enabler of digital business and treat information as a second language.

Opportunities and Challenges

- "Poor data literacy" is the second biggest internal roadblock to success, as ranked by respondents to Gartner's third annual chief data officer (CDO) survey.
- In the same survey, CDOs cite culture and lack of talent and skills as the top impediments to business growth.
- An information language barrier exists between organizations, rooted in ineffective communication across a wide range of diverse stakeholders. As a result, data and analytics leaders struggle to get their message across and information assets are underutilized.

What You Need to Know

To foster data literacy across the enterprise, leaders of data and analytics programs should:

- Serve as an active and visible champion for data literacy as an explicit, leading goal of a broader workforce digital dexterity program.
- Cultivate information as a second language (ISL) across business and IT stakeholders by first establishing the base vocabulary, clarifying industry and business domain "dialects," and developing levels of proficiency.
- Drive and sustain improvements to the organization's data literacy by identifying areas where data is spoken fluently and where language gaps exist. Establish an ISL proof of concept for language development.

- Change the way you and your colleagues interact with leaders, stakeholders and peers by "speaking data" in context in everyday interactions, board meetings and as a basis for outcome-oriented business cases.

Insight From the Analyst

Data Literacy Is the New Six Sigma



Valerie A. Logan, Research Director

Almost 30 years ago, a major shift occurred when the notions of business process re-engineering and Six Sigma arrived. Most famously practiced as a part of Jack Welch's business strategy at GE, by the late 1990s, Six Sigma became part of the fabric of most Fortune 500 organizations.

This wasn't a fad. It was a movement. A revolution. It made every employee see the business through a process lens focused on the customer. There were early pioneers of Six Sigma, eventually expanding into a set of standard techniques, toolsets, training and certified "black belts" — from the boardroom to the break room.

Today, we stand on the threshold of another shift, another movement, another revolution — data literacy. Just as workers in the 1990s had to work differently, the same is true now. No longer is organizational change defined entirely by the trinity of "people, process and technology"; there's a new core element in town — "data," and it changes everything.

Amplified by diversity, "speaking data" is the new foundation for the digital workplace, whether you are a creator or consumer of data-driven solutions.

Data literacy is multifaceted and complex, requiring leaders who can see what is possible with data and who can foster a new common language. It requires shared methods, technologies, training and even, eventually, certification.

This Special Report is organized into five chapters:

1. Cultivating data literacy
2. The base vocabulary
3. The dialects
4. Workforce training and development
5. Innovation in data literacy

This topic has resonated strongly with clients and demand is accelerating quickly. We are proud to share this first set of findings. And, due to the emerging nature of data literacy, we are planning a second part to this report for the fourth quarter of 2018.

Sincerely,

Val Logan

Executive Overview

Definition

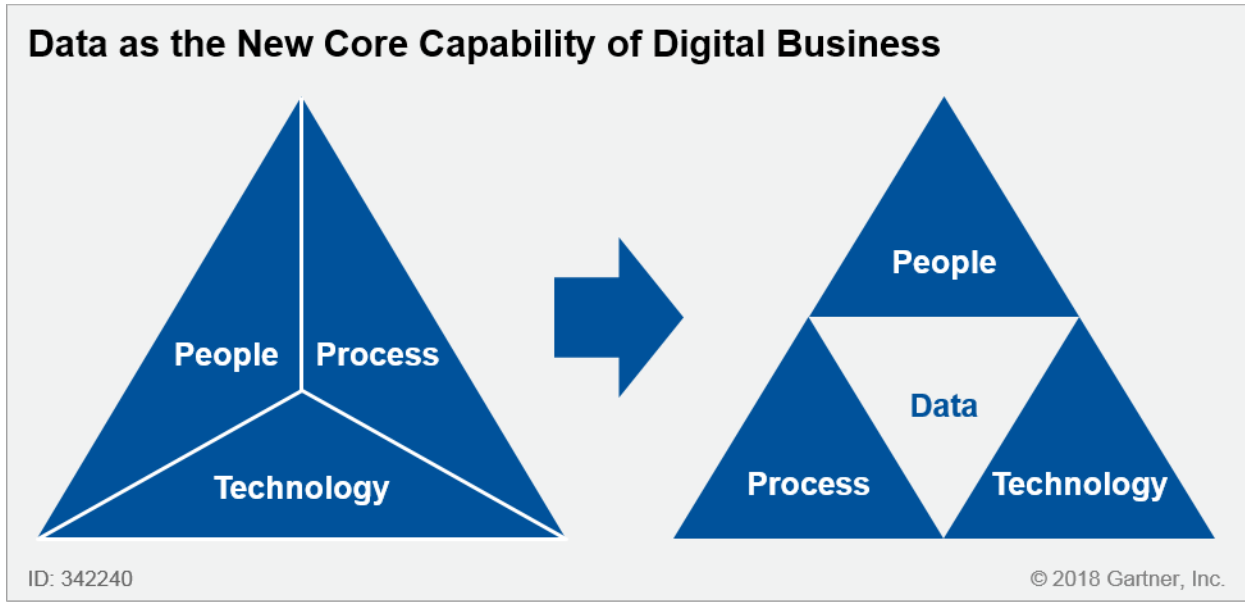
With the emergence of data, analytics, artificial intelligence (AI) and machine learning as the new core elements of digital business and society, the ability for creators and consumers of solutions built on these elements to "speak data" in a common way has never been greater. Data and analytics leaders must treat information as a second language and data literacy as a core element of digital transformation.

Gartner defines data literacy as the ability to read, write and communicate data in context, including an understanding of data sources and constructs, analytical methods and techniques applied, and the ability to describe the use case, the application and resulting value.

The changes to business will be profound. Gartner expects that, by 2020, 80% of organizations will initiate deliberate competency development in the field of data literacy, acknowledging their extreme deficiency. In addition, by 2020, 50% of organizations will lack sufficient AI and data literacy skills to achieve business value.

People, process and technology. These are the three elements common to all business change. But now, any organization undergoing a digital transformation must factor in a fourth key element — data (see Figure 1).

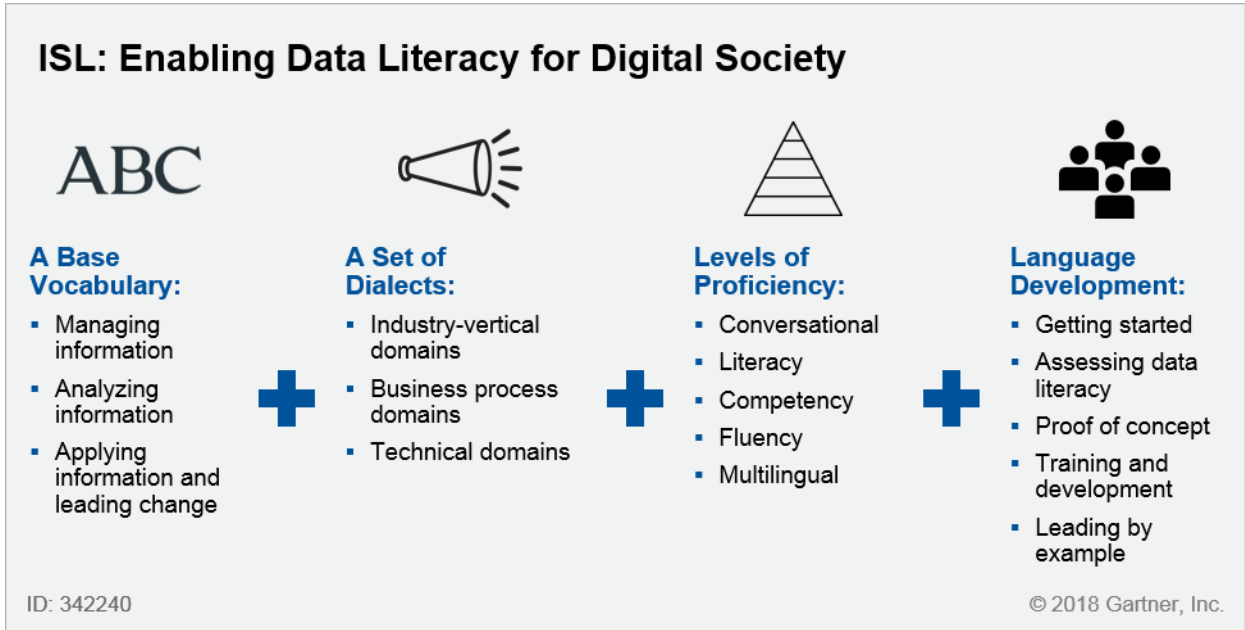
Figure 1. Data Is the New Core Capability of Digital Business Transformation



Source: Gartner (February 2018)

Not only must organizations take steps to educate professionals who are involved in crafting data-driven solutions, products and services, they must also ensure those steps achieve the goal of teaching all relevant employees to speak data as their new second language, as well as developing and nurturing communities in which the language will flourish (see Figure 2).

Figure 2. Information as a Second Language (ISL): Enabling Data Literacy for Digital Society



Source: Gartner (February 2018)

Research Highlights

Cultivating Data Literacy and the Case for Change

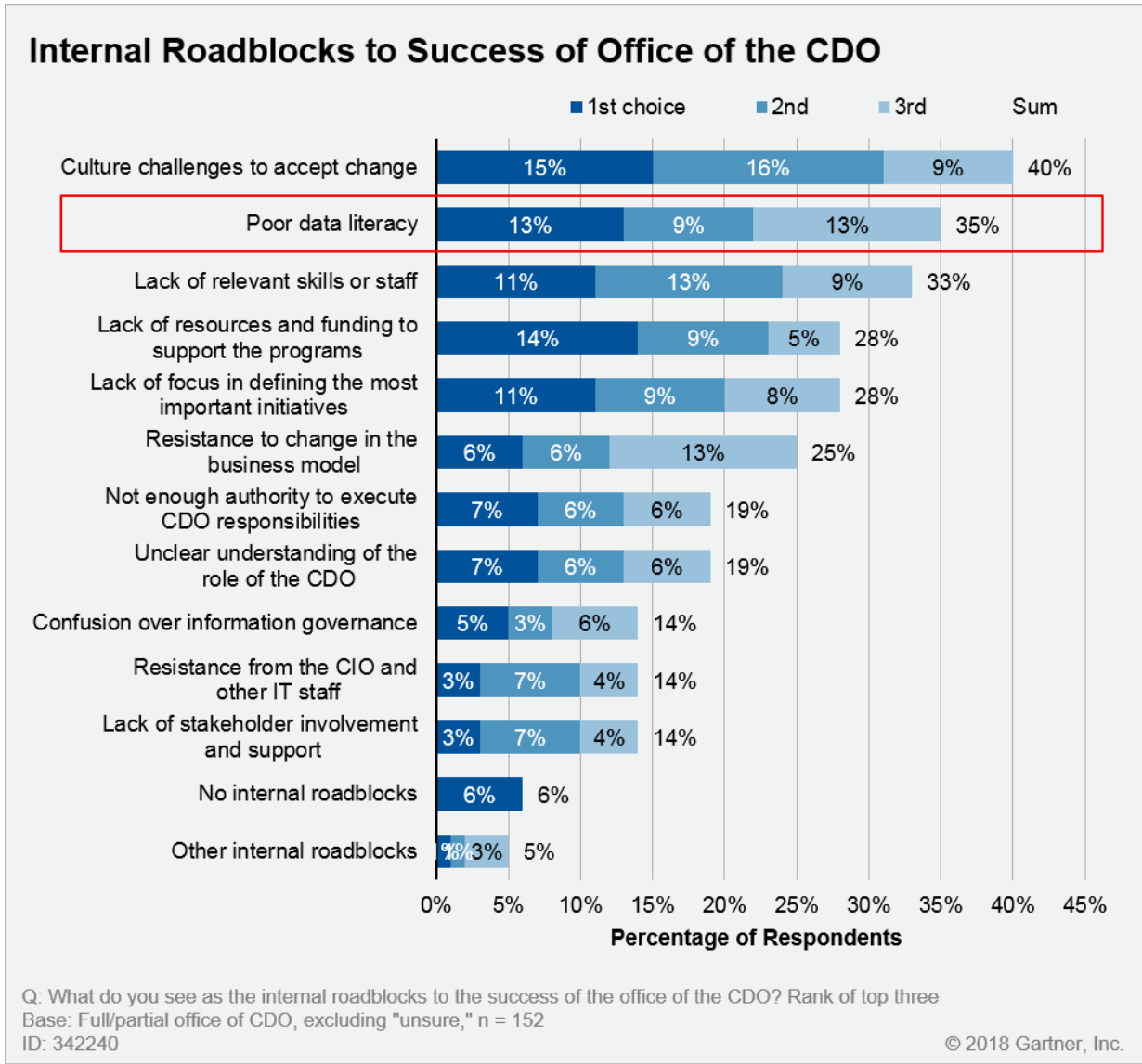
Every organization must cultivate the way data literacy will improve its ability to thrive in a business world that increasingly demands digital dexterity. The pace of change, already fast, is accelerating more with each year, demanding the creation of a digital workplace business strategy. This is made clear in Gartner's research on digital dexterity, "The Secret to Digital Transformations Is Analog: Why a Digitally Dexterous Workforce Is the Key":

Those organizations that excel at delivering a digital workplace — and are therefore fueling workforce digital dexterity — will gain significant competitive advantage as digital transformations accelerate. Properly implemented, a digital workplace strategy will help make employees more mobile, analytical, creative, collaborative and innovative through the use of tools, training and encouragement.

Data and analytics leaders must help their organizations prepare to meet the needs of customers while staying ahead of competitors. The first step is understanding data literacy and how it can improve business results.

Within Gartner's third annual survey of CDOs (see "Survey Analysis: Third Gartner CDO Survey — How Chief Data Officers Are Driving Business Impact"), respondents were asked about their most significant internal roadblocks to success. "Poor data literacy" featured as a new response, debuting in second highest position behind "culture challenges to accept change" and just ahead of "lack of relevant skills or staff" in third (see Figure 3). A sustained data literacy program addresses all three of these roadblocks.

Figure 3. Internal Roadblocks to Success of the Office of the Chief Data Officer



Source: Gartner (February 2018)

The following related research will help data and analytics leaders understand why data literacy is key to the future, set within the context of a digital workplace that strives for workforce digital dexterity.

Related Research

"Predicts 2018: Emerging Technologies Pave the Way for Business Reinvention"

By Mike J. Walker, Whit Andrews, Erick Brethenoux, Mark Horvath

Five emerging technologies will reshape businesses, industries and daily life through unrivaled technological disruptions. Enterprise architecture and technology innovation leaders need to embrace and master these technologies to uncover unparalleled business reinvention.

"The Secret to Digital Transformations Is Analog: Why a Digitally Dexterous Workforce Is the Key"

By Matthew W. Cain, Graham P. Waller

Application leaders have a unique opportunity to deliver significant business value by growing a culture of workforce digital dexterity. In other words, helping employees improve their ability and desire to use existing and emerging technology for better business outcomes.

"Deliver Digital Business Results by Boosting Workforce Digital Dexterity"

By Matthew W. Cain, Jack Santos

Digital business transitions are accelerating the need for broad workforce digital literacy. IT leaders that help employees boost digital dexterity are an essential component of a digital business strategy. Helping employees increase their digital dexterity is the key to fulfilling the digital business strategy.

"Information as a Second Language: Enabling Data Literacy for Digital Society"

By Valerie A. Logan

As data and analytics become pervasive in all aspects of business, community and even our personal lives, the ability to communicate in this language — that is, being data literate — is the new organizational readiness factor. Digital society demands of its citizens data literacy, developed for competitive advantage and agility. Data and analytics leaders must follow the example of English as a second language and treat information as the new second language of business, government, communities and our lives.

"Toolkit: Tales From the Bleeding Edge — Trends Every Data and Analytics Leader Should Know About"

By Frank Buytendijk, Gareth Herschel, Ted Friedman, Thomas W. Oestreich

As a data and analytics leader, you are central to your company's digital strategy and digital platform. This means that you now need to reach beyond your own specialism of data and analytics. Here, we present "tales" about trends that you should be ready for.

"Survey Analysis: Third Gartner CDO Survey — How Chief Data Officers Are Driving Business Impact"

By Valerie A. Logan, Michael Patrick Moran, James Laurence Richardson, Roxane Edjlali, Mario Faria

Gartner's annual survey asked CDOs about their role in the organization and their thoughts on the future of data analytics. It found that CDOs fill a sustaining executive role, delivering tangible

business value and enabling a data-driven culture. Gaining critical mass globally, data and analytics leaders such as CDOs are proving to be linchpins of digital business transformation.

"A Data-Driven Culture Is Vital to Digital Business Success for Midsize Enterprises"

By Alan D. Duncan, Lydia Clougherty Jones

CIOs in midsize enterprises must foster a data-driven culture to uncover new digital business opportunities. This can be achieved by fostering digital literacy and the availability of business-oriented analytics tools.

Stories and Examples

"Georgia State University Rethinks the CIO Role to Help Digital Education Evolve"

By Andy Rowsell-Jones, Tomas Nielsen, Jan-Martin Lowendahl, Chris Howard, Jennifer Mitchell

Digitalization is impacting higher education in the 21st century, exemplified by Georgia State University developing a digital university. To do so, its chief innovation officer collaborates with academics and the business to change the university's higher education process and promote student success.

"How to Enable Self-Service Analytics and Business Intelligence: Lessons From Gartner Award Finalists"

By Carlie J. Idoine, Cindi Howson

Gartner's Data and Analytics Summit 2017 Excellence Award finalists offer a master class in transforming an organization in the digital age. They show that, for data and analytics leaders, enabling self-service involves far more than the provision of easy-to-use tools.

"Ethical Discussions Help San Francisco International Airport Resolve Today's Dilemmas"

By Frank Buytendijk, Christie Struckman, Heather Colella

When confronted by a new idea that may contain ethical dilemmas, airport management sits down to discuss the issues. Having to negotiate the different expectations within the enterprise generates additional complexity.

"Making Ethics Part of Regular Discussions at UnitingCare Queensland"

By Frank Buytendijk, Christie Struckman, Heather Colella

UnitingCare, an Australian community services body, uses digital technology in a wide variety of value-producing services, collecting large amounts of information that can lead to a number of ethical issues. To make ethical decisions, its CIO says that conversations need to happen at all levels across the organization.

The Base Vocabulary of ISL

Learning to "speak data" is like learning any language. It starts with understanding the basic terms and describing key concepts. In the case of data, there are three key areas of vocabulary: managing data, analyzing data, and applying data for value.

In addition, the language of data has many dialects, which we cover in the next chapter. Depending on one's role, the target level of proficiency of the vocabulary and dialects varies.

This chapter outlines the essence of the data language terms/taxonomy, and the critical role of business and data glossaries and dictionaries.

Related Research

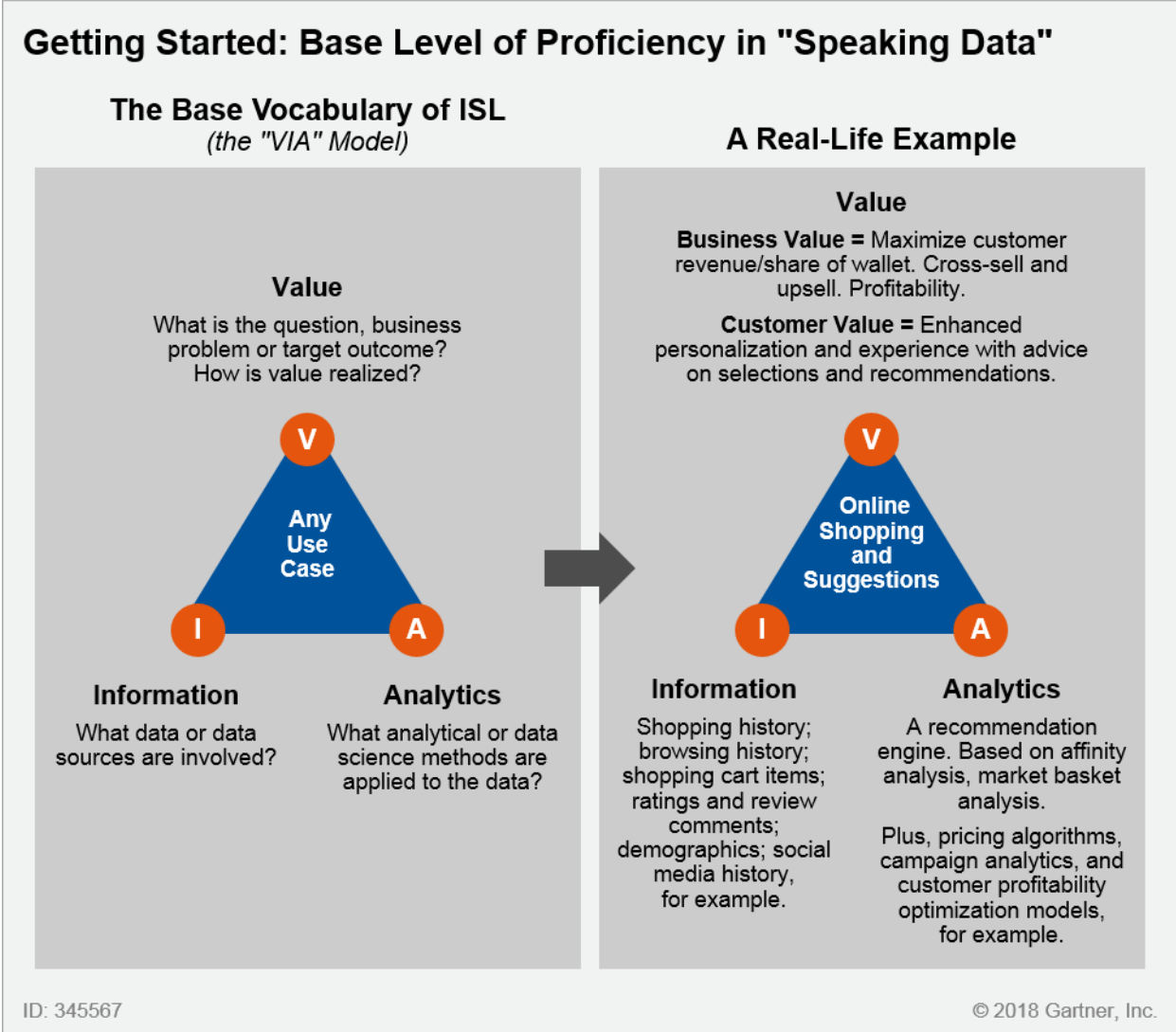
Terms, Taxonomy

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

By Valerie A. Logan, Douglas Laney

Data literacy enables data and analytics leaders, including CDOs, to implement a successful data-driven culture. Gartner's Toolkit for data literacy provides key resources to raise data literacy awareness, an organizational assessment and content to advance data literacy development (see, in particular, the Base Vocabulary section and "VIA" model — Figure 4 below).

Figure 4. Getting Started: Do You "Speak" Data?



VIA = value, information, analytics

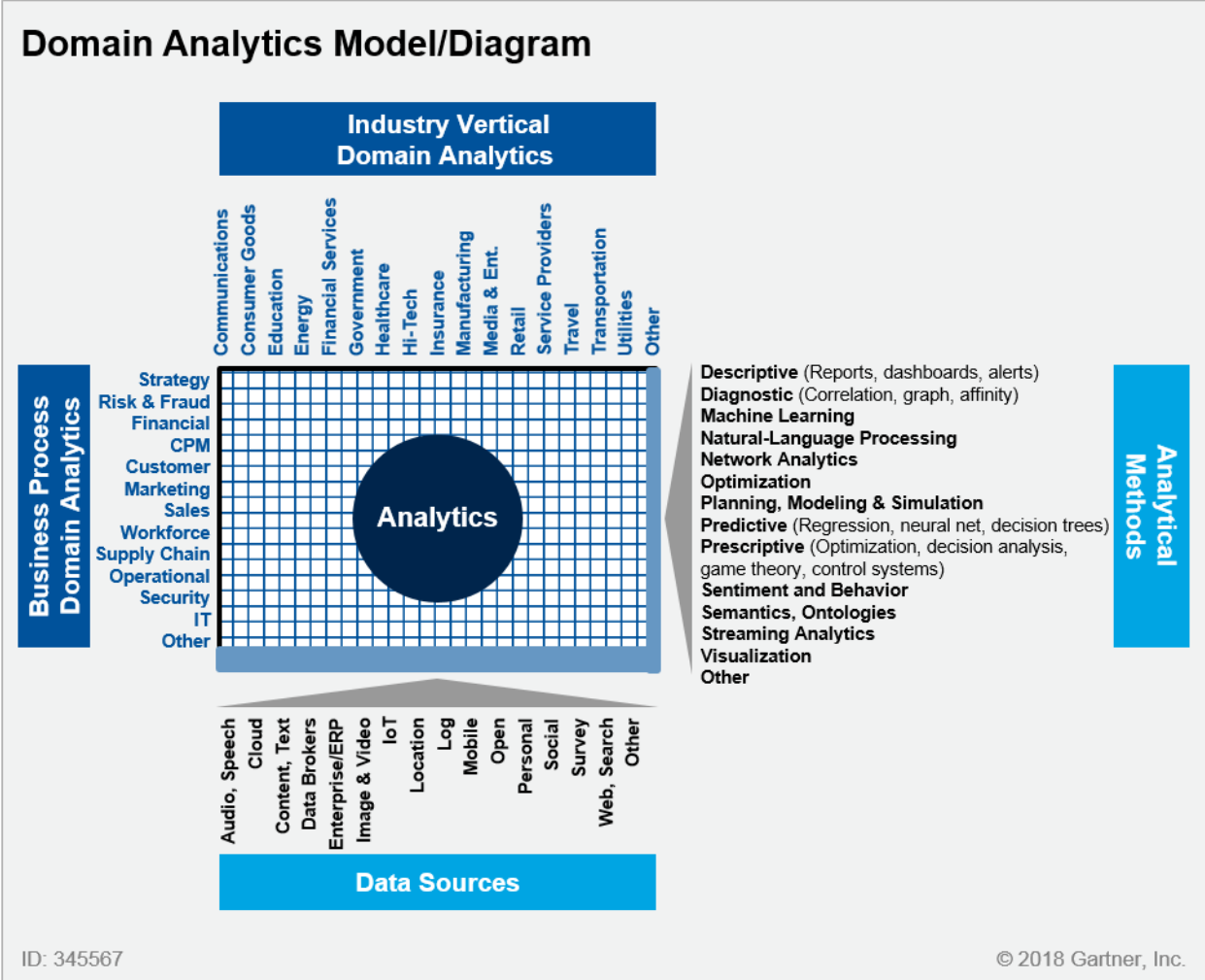
Source: Gartner (February 2018)

"Domain Analytics: Harnessing the Pervasive Nature of Analytics"

By Valerie A. Logan, Melissa Davis, Svetlana Sicular, Gareth Herschel, Kurt Schlegel, Jorgen Heizenberg

The domain analytics model establishes the base vocabulary for data source types and types of analytical methods. Domain analytics refers to the collective set of analytics applied across all industry verticals and business processes (see Figure 5 below). Data and analytics leaders must optimize their domain-specific analytics competencies for success in the digital economy.

Figure 5. Domain Analytics Model/Diagram



CPM = corporate performance management; ERP = enterprise resource planning; IoT = Internet of Things

Source: Gartner (February 2018)

Glossaries, Dictionaries

"Data Catalogs Are the New Black in Data Management and Analytics"

By Ehtisham Zaidi, Guido De Simoni, Roxane Edjlali, Alan D. Duncan

Linking data catalogs to broader data management needs is the key to gaining the most value from them.

"Develop Valuable Metadata to Exploit Digital Business Opportunities"

By Guido De Simoni, Roxane Edjlali

Demand for data catalogs is soaring as organizations struggle to inventory distributed data assets to facilitate data monetization and conform to regulations. Data catalog projects will fall short of their full potential if data and analytics leaders don't link them to broader data management needs. Developing metadata management is critical to making the best use of data.

"Magic Quadrant for Metadata Management Solutions"

By Guido De Simoni, Roxane Edjlali

The growing need for organizations to inventory and leverage data assets continues to drive strategic initiatives on metadata management and the growth of its solutions. Data and analytics leaders can reference this vendor evaluation to find the most appropriate solution for their organization. Among several key metadata management capabilities, this Magic Quadrant compares vendors' business glossary features.

The Dialects of ISL

The language of data has many dialects. Each one employs its own terms, vocabulary and metrics. The dialects are specific to the setting, business domain or industry domain. Hospitals, governments and the insurance industry, for example, each have their own way of talking data.

Everyone across the business, as well as customers and vendors, must learn the dialect. This allows everyone involved to discuss and use data to fulfill business goals. The proficiency needed in a particular dialect depends on the person's role.

The related research below looks at examples of dialects by industry, business domain and technical domain, in order to emphasize the nature of varying "data dialects," and the importance of being conversant in the business, data and analytical terms within a dialect.

Related Research

By Industry

This research puts a spotlight on three industries (healthcare, retail and public sector) as examples of industry domain dialects, and the natural variation of how people "speak data" across industry sector cultures.

"Gartner Healthcare Analytics Framework for Healthcare CIOs"

By Laura Craft, Jeff Cribbs

A look at how taking a broad view of analytics helps healthcare CIOs use data to enhance industry opportunity and value. CIOs must configure their analytics infrastructure, select tools, meet organizational demands for data and reporting, and — most challenging — create new value out of new data.

"Develop a Business Manifesto for Retail Digital Workplace Success"

By Kelsie Marian, Matthew W. Cain

The principles and goals of a retail digital workplace must be written in everyday language, reflecting the culture and values of the retail business while offering measurable guidance to employees and store managers for workforce development. CIOs should create a digital workplace manifesto. Setting the values and goals of the retail digital workplace in plain language will help them ensure that everyone understands what is expected.

"Industry Data Governance Is Key to Developing a Smart City Platform"

By Bettina Tratz-Ryan, Cathleen E. Blanton

Assessing the quality and ownership of data, as well as oversight and orchestration of data sources, will become a critical catalyst for smart city execution confidence. Local government CIOs should apply data governance to create a data mentality for information management and citizen engagement.

By Business Domain

This research spotlights, as an example, one business domain dialect (for the marketing business domain), and the importance of growing domain-specific data literacy as part of creating a data-driven culture.

"How to Foster a Data-Driven Culture in Your Marketing Organization"

By Ewan McIntyre

Gartner survey data demonstrates the need for marketing leaders to build and foster data-driven decision making. Use this research to understand the importance of culture in delivering on data-driven objectives and learn how to overcome the hurdles to drive that culture in your company.

"Marketing Organization Capabilities Survey 2017: Customer Insight, Martech and Creativity Are Essential Ingredients for Modern Marketing Teams"

By Christopher Ross

Marketing leaders are clear on which capabilities are required for modern marketing success. Marketing leaders can use our survey findings to discover the most critical marketing expertise and the importance of soft skills, where agencies provide value and optimal partner engagement models.

"Survey Analysis: Marketing Leaders Strive to Master Data, but Hit Limits"

By Anna Maria Virzi, Lizzy Foo Kune

Proficiency in data and analytics and customer insight are competitive differentiators. Gartner's 2017 Marketing Organization Capabilities Survey helps data and analytics leaders develop and retain data-driven capabilities among team members.

By Technical Domain

Within various data and analytical roles and functions, specific dialects are spoken. You recognize this if you are in a room of data architects, or data scientists ("quants"), or business intelligence developers.

In addition to specialized roles with technical dialects, data and analytics is made pervasive through: (1) self-service; (2) AI embedded in applications; and (3) augmented insights delivered to people at the edges, which are embedded within conversational UIs. The consumers of these insights need a common language and a competency in data literacy to be able to fully leverage those insights in a consistent way.

Consistency is key here. For example, two people or 10 people can look at the same visual display of data and each one have a different interpretation based on individual bias, based on what they want to see in the data and on their varying skills. Augmentation, coupled with literacy, plays a role in this.

The following research provides examples of the importance of upskilling and developing role-specific dialects, and gaining familiarity with these dialects particularly for those interacting with teams composed of these native speakers. Examples spotlighted here include the following areas: AI, augmented analytics, data science/machine learning and data visualization.

"Artificial Intelligence Demands That CIOs Foster a Data-Literate Society"

By Alan D. Duncan

AI uses algorithms to make sense of and act on diverse, complex and fast-moving data — its entire reason for being. CIOs responsible for enabling AI initiatives need to foster a culture of data literacy to drive success with AI-based systems. Fostering data literacy is imperative if organizations are to take advantage of AI-based systems.

"Augmented Analytics Is the Future of Data and Analytics"

By Rita L. Sallam, Cindi Howson, Carlie J. Idoine

Augmented analytics, an approach that automates insights using machine learning and natural-language generation, marks the next wave of disruption in the data and analytics market. Data and analytics leaders should plan to adopt augmented analytics as platform capabilities mature.

"Leading Upskilling Initiatives in Data Science and Machine Learning"

By Peter Krensky, Shubhangi Vashisth, Douglas Laney

The talent gap is a top challenge for data science and machine-learning initiatives, but it can be overcome by upskilling analytics professionals. This research is a high-level playbook for data and analytics leaders to develop individuals and improve data science and machine-learning literacy.

"Four Ways to Get More Value From Data Visualization"

By James Laurence Richardson

Interactive data visualization is a powerful tool for delivering insight to people in an intuitive form. This research addresses what data and analytics leaders can do to get the most from data visualization as part of the ongoing modernization of BI and analytics.

"Embrace Your Bias to Enable Analytics Clarity"

By Mark A. Beyer, Dale Kutnick, Alan Dayley

Bias is inherent in the development of analytic models, data selection and the associated algorithms. The bias continuum provides data and analytics leaders with a discussion template for transparently exposing statistical bias so as to ensure real business impacts.

Workforce Training and Development: Getting Started

Once you understand data literacy and the need for a common language and shared dialects across the organization, it's time to get started. The first step is to recognize that data literacy is part of an overall change management and organizational strategy.

Creating awareness among all stakeholders is essential. Socializing the need for data literacy is an important step in preparing everyone for the change, convincing them that data literacy is a "thing," just like Six Sigma was a "thing." It needs an identity. As you are creating general awareness, begin creating a baseline assessment to determine the level of data literacy across subsets of the organization. This assessment can be used to measure progress, demonstrate improvement and share stories of progress.

Once the assessment of a localized team is baselined, run a pilot program. Use reverse mentors and identify translators and enhanced training programs to teach the language of data.

Start with a small group, which will allow you to see what works and to fine-tune your processes. Then you can move on to other teams, socializing results and creating momentum across the organization.

The related research offers Toolkits and other notes that will help you begin to pilot areas of training to start developing subsets of your workforce.

Related Research

Getting Started: Assessing and Developing Data Literacy

"Foster, Don't Fight, Business-Led Analytics"

By CEB CIO Research Team

Our conversations with hundreds of CIOs and other business leaders show that IT can no longer corral or control all analytics activity in the organization. Instead, IT must tailor its engagement to guide the work of business analytics teams and support better decision making with data.

"Working With HR on Digital Workplace Initiatives"

By Helen Poitevin

HR leaders are responsible for organizational culture and employee engagement improvement. However, culture and engagement are increasingly intertwined with technology investments. IT leaders of digital workplace initiatives should therefore engage with HR on a regular basis.

"Use the Gartner Data and Analytics Compass to Drive Strategy"

By Thomas W. Oestreich, Kurt Schlegel, Mike Rollings, Saul Judah

Data and analytics leaders such as CDOs need to turn current and future demand for data and analytics into business impact. The Gartner data and analytics compass helps you build a good data and analytics strategy.

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

By Melissa Davis, Jim Hare, Jorgen Heizenberg, Gareth Herschel, Valerie A. Logan, Kurt Schlegel, Thomas W. Oestreich

Data and analytics leaders cannot master the opportunities and challenges of digital business transformation unless they devise a new model that both empowers analytics leaders in their local domains and leverages the shared best practices of the central organization.

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

By Valerie A. Logan, Douglas Laney

This Toolkit is used to create awareness across stakeholders in the organization about the needs and opportunities for data literacy, assess initial data literacy levels, and identify targeted training opportunities. It includes recommended steps to take to create awareness of the need for data literacy and for conducting pilots and assessments. The assessment section allows measurement of data literacy to target areas for development and baseline starting levels across the organization.

"Data-Centric Facilitators Are Crucial for Enabling Data Literacy in Digital Business"

By Alan D. Duncan

Improved data literacy is crucial to achieving digital business success. Data and analytics leaders must incorporate data-centric facilitation practices if they are to unlock the value of their enterprise information assets.

"Toolkit: How to Implement a Reverse Mentoring Program to Accelerate Digital Skills Development"

By Diane Berry, Lily Mok

Digital business requires a digital-savvy workforce. CIOs and IT leaders can use reverse mentoring as an effective strategy to accelerate digital skills development and knowledge transfer across IT. This Toolkit provides the materials to implement a reverse mentoring program for the digital age.

"Enrich Professional Development Through a Continuous-Learning Culture"

By Diane Berry, Lily Mok

Scaling for digital business places greater demand on IT workforce capabilities. Building a digital-ready IT workforce will require CIOs to revamp their professional development programs and to groom managers to be coaches who can build and sustain a continuous-learning culture.

Innovation in Data Literacy: Early Developments

The fostering of data literacy across organizations is a rapidly emerging area. Organizations seeking to improve overall digital dexterity must embrace data literacy as a core sub theme. Data literacy programs are also essential to realizing the full value of data and analytics platforms and tools.

Within the research "Toolkit: Enabling Data Literacy and Information as a Second Language," a list of providers are outlined in the Resources section, all of which have been early movers in the data literacy space.

Service, technology and solution providers of data and analytics offerings should be monitoring this trend closely and expanding their current training offers to be more inclusive of data literacy elements, where appropriate.

We expect this landscape to develop and will be monitoring developments closely. A second part of this Special Report later in 2018 will explore these developments further.

Related Research

"Predicts 2018: What Providers of Data and Analytics Offerings Need to Know"

By Alys Woodward, Terilyn Palanca, Alan Dayley, Jim Hare, Laurie F. Wurster, Rita L. Sallam, Sid Nag

Three evolutionary trends apply across the diverse set of data and analytics markets: intelligence for everyone; the spread of "smart"; and the journey into context. Technology business unit leaders for vendors of data and analytics offerings should build and market their solutions to support these trends.

"Hype Cycle for the Digital Workplace, 2017"

By Matthew W. Cain, Michael Woodbridge

Application leaders driving a digital workplace program must harness a combination of new and existing technologies in areas as diverse as human resources, analytics, collaboration, machine learning, content and office space to boost employee engagement, agility and digital dexterity.

"Technology Insight for Modern Analytics and Business Intelligence Platforms"

By Cindi Howson, Rita L. Sallam, Joao Tapadinhas, James Laurence Richardson, Carlie J. Idoine

Now that self-service analytics led by the business are mainstream, data and analytics leaders should invest in modern platforms for greater accessibility, agility and analytical insight from a diverse range of data sources.

Related Priorities

Table 1. Related Priorities

Priority	Focus
Customer Experience Design and Execution	Customer experience management is the practice of designing and reacting to customer interactions to meet or exceed their expectations, leading to greater customer satisfaction, loyalty and advocacy.
Analytics and BI Strategies	The analytics and BI strategies initiative focuses on the strategies, practices, technologies and products needed to support a variety of users across different types of business problems.
Data Management Strategies	This initiative tracks, explains and advises on organizational roles, architectures, practices, technology trends and vendor offerings for data management.
Digital Workplace Program	A digital workplace program is a business strategy to boost workforce digital dexterity through an engaging and intuitive work environment.

Source: Gartner

Gartner Analysts Supporting This Trend



Valerie A. Logan



Alan D. Duncan



Matthew Cain



Guido De Simoni



James Laurence Richardson

Related Resources

Webinar

[Information as a Second Language: Enabling Data Literacy for Digital Society](#)

Digital society demands data literacy, developed for competitive advantage and agility. Data and analytics leaders must follow the example of English as a second language (ESL) and treat information as the new second language of business, government, communities and our lives.

Articles

[Analyst Answers: The Biggest Challenges for Data & Analytics Leaders Today](#)

[3 Top Take-Aways From the Gartner Chief Data Officer Survey](#)

[Kick-Start the Conversation on Digital Ethics](#)

[How CDOs Can Walk the High Wire of Data-Driven Business](#)

Acronym Key and Glossary Terms

AI	artificial intelligence
CDO	chief data officer
ISL	information as a second language

Gartner Recommended Reading

Some documents may not be available as part of your current Gartner subscription.

"Predicts 2017: Licensing, Legal and Language Lessons for Data and Analytics Leaders"

"Predicts 2018: Five Course-Altering Changes for Data and Analytics Programs"

Evidence

Gartner's Third Annual Chief Data Officer Survey

The data for this report comes from Gartner's third annual chief data officer survey, conducted during July and August 2017 by phone and online. The survey included 287 chief data officers, chief analytics officers, and other high-level data and analytics leaders from across the world. The purpose of the survey was to test a set of five hypotheses about the CDO role and the office of the CDO, in order to understand how this rapidly growing business function is maturing and the resulting business impact.

Analyst inquiries

Based on hundreds of client inquiries and interactions with many analysts across all aspects of the digital workplace, on a variety of data and analytics topics, across industries and business domains.

More on This Topic

This is part of an in-depth collection of research. See the collection:

- [Getting Started With Data Literacy and Information as a Second Language: A Gartner Trend Insight Report](#)

GARTNER HEADQUARTERS**Corporate Headquarters**

56 Top Gallant Road
Stamford, CT 06902-7700
USA
+1 203 964 0096

Regional Headquarters

AUSTRALIA
BRAZIL
JAPAN
UNITED KINGDOM

For a complete list of worldwide locations,
visit <http://www.gartner.com/technology/about.jsp>

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