Alation

The Path To Data Excellence

The Alation Data Maturity Model

Introduction

Becoming data-driven has been a priority for organizations as long as data has been available. Yet today, high volumes of data make it increasingly difficult to find and use effectively. Organizations that manage data well are more likely to acquire and retain customers, and outperform peers, according to the McKinsey Global Institute. How did these "data mature" firms become that way, and how can others do the same?

In this white paper, we introduce the Alation Data Maturity Model to provide a common framework for benchmarking and advancing data management capabilities. Informed by Alation's work with hundreds of customers, including 35% of the Fortune 100, the framework assesses 4 core pillars of data maturity — including data leadership, data search & discovery, data literacy, and data governance — in order to help data leaders understand how they can advance their own data maturity journey.

We provide guidance on applying the framework, and offer solutions for challenges typically encountered during this journey.

What Is Data Maturity? Why Pursue It?

Data maturity refers to how organizations use data to achieve goals and make key decisions. The most data mature organizations are consistently curious about leveraging data and diligent in keeping it updated and curated. They never stop learning and growing.

They also prepare their users for success. Being a mature user of data means data is easily accessible, understood, trustworthy, and relied upon. This requires data and systems infrastructure, as well as a cultural shift for people and organizations to value evidence and reason over opinion, consensus, or rank.

Data maturity has immense — and proven — value. Research presented at the MIT Chief Data Officer and Information Quality Symposium showed that data-mature companies "enjoy increased revenue, improved customer service, best-in-class operating efficiencies, and improved profitability."

However, becoming a data-mature organization, and fostering a data culture, takes work. A data maturity *program* is how you get there. This is a comprehensive effort to enhance an organization's ability to effectively manage and leverage data. It begins by assessing the current maturity against a benchmark model to identify areas for improvement.

How to Become Data Mature

Certainly, more comprehensive maturity models exist. The DAMA maturity model has 120 questions and can take many hours to complete. The Alation Data Maturity Model is not intended to be as exhaustive, but rather an introductory conversation to assess your current level.

Based on our experience with hundreds of customers, we've learned that organizations with high data maturity understand and promote these 4 critical areas:

1. **Data Leadership** that understands the value of data
2. **Data Search & Discovery**, and related stewardship, as fundamental to extracting value from data
3. **Data Literacy** and the change management effort required
4. **Data Governance** with the appropriate structure and support

By assessing these 4 pillars, and accompanying levels of achievement and advancement (i.e., maturity), we develop a model to measure how an organization's capabilities match against the spectrum, from zero effort to a best-in-class, fully mature effort.

A maturity model provides qualitative evaluation criteria organizations can use for continuous improvement. As technology and techniques advance, especially in relation to data, the levels of data maturity will also advance and change. Even the most mature organizations can still find areas of improvement in each of the levels.

We will now review each of these pillars in more depth:

Data Leadership

A business leader is a data leader. And today, leaders at mature organizations understand the value of data. Firms in industries that fundamentally rely on data — finance, insurance, health sciences, retail, and others — understand that advanced data maturity enables them to be more competitive, compliant, and innovative. That understanding is built into their organizational fabric, as leaders grasp the importance of data and infuse it into operations. Hence, in our professional experience, organizations in these industries are typically more data mature than those in others.

However, we still see many who assume that data maturity will come with a couple short initiatives or purchase of a new tool. In fact, it requires truly engaged leadership who consistently reframes and contextualizes the importance of data investments for business outcomes. That entails:

- **A vocal sponsor.** This is a respected leader within the organization, recognized as a data authority. This person champions the value of data and a larger data program. They tie data program outputs to organizational priorities and key business goals. They're also a gifted communicator and oversee a comprehensive communications plan, which drives alignment around the data program priorities.
- **A change management program.** A strong program requires 3 key pieces. First, the team understands the program's purpose; they grasp how it will make the organization and themselves higher performing. Second, they have the skills and willpower to do the work. Third, they are rewarded for using the data tooling.
- **An onboarding process.** How will the program launch? Leaders must know which people and what data assets to onboard when. They need a plan and roadmap, along with a grasp of which users should join the community first (like stewards and SMEs).
- **A focus on business value and ROI.** Organizations on this path will tie data to business strategies. With time, they will build out a library of queries, best practices, and input metrics, along with regular reporting that measures program success.

Steve Pimblett, CDO of the Very Group, one of the UK's largest retailers, recommends leaders start with the business outcome rather than the data. "Ask yourself early: how will you create value from data?" he says. "Improved margin, improved profitability, better net promoter score? Whatever the business outcome you want, you really start with that and then work back through the pillars. What insight do we need? What data do we need to drive that insight?" By starting with value creation, leaders can align the use of data with a clear purpose.

On top of this, investments must be made and made visible. Training to improve data skills must be available. Use of programs and systems designed to increase data literacy must be incentivized. Executive leaders must champion the effective use of data. Mid-level leaders must understand how data supports organizational priorities. And the business value of data must be made consistently. With these pieces in place, people will change, investment will come, and a data culture can eventually thrive.

Data Search & Discovery

The path to data maturity starts with discovery: identifying and assessing data assets and their current and expected use cases. For data to be used it has to be found. Thus, leaders at mature data organizations seek out technology, such as a data catalog, that enables people to find and use data. Without this technology, finding data is typically ad hoc and inefficient, and limited to a small team of those with access and expertise.

Key search features to consider include:

- **Intuitive, Google-like search.** All users should be able to quickly find and preview relevant data, ranked by trustworthiness and popularity.
- **Curated context.** Seek out a platform that delivers context and insights via metadata: a data asset's top experts and past users, with stoplight icons to indicate quality.
- **Integrated search.** Are you able to search for data information across third-party tools? Are you able to access that data within your day-to-day workflow — e.g., within Slack, or within a spreadsheet?

Data enablement also demands making trusted, well-curated data available; this is critical to supporting self-service. It also demands a foundation of data curation and stewardship, so people searching for data can find trusted, contextualized information quickly. But how do you jumpstart curation and stewardship efforts?

Look to your data *power users*, as they are also your potential *data stewards*. Taking on part-time stewardship tasks gives them more authority to identify opportunities, act on changes, and engage with other data users. Power users' expertise and knowledge add context to data maturity programs, and democratizing this tribal wisdom can empower others with vital context.

> **[Our data catalog] allows the analysts to quickly find the data and now spend 80% of their time doing analysis on the data.**
>
> **Patrick Dever**
> **Former Chief Data Strategist, Avista**

Partnering with your power users early can also create valuable momentum for your program. The workers who use data the most will be most critical to driving widespread adoption, so gaining their buy-in to potential programs, technologies, and processes is important. They also know how and where others use data — and can advise on who to onboard when.

Data Literacy

How data literate is your organization? To answer this question, consider how people prepare analyses. Do most people have the skills and tools to pull data and analyze it for distinct audiences? Or is analysis manual and restricted to a small group of people? At firms with high data literacy levels, even non-data specialists can pull and analyze data with minimal support. By contrast, firms with low data literacy will have minimal awareness of top data users and their needs, and lack training and user communities.

Maturing literacy demands infrastructure and education. Leaders at mature data organizations actively work to improve data literacy, and savvy workers will embrace training and help grow an organization's data maturity. In addition to leaders championing data's value, people need training, resources, and a consistent beat of communications to reinforce and act on that value. Those who deploy data systems and programs, too, must understand data use cases by collaborating with workers to gather needs and develop solutions. Improving data literacy is a change management issue that requires leadership and focused effort.

The difficulty of data literacy is commensurate with the tools used. Just as you wouldn't hand a Shakespeare play to a new English language learner, you wouldn't expose a business analyst to backend code. Similarly, organizations need to enable the appropriate level of literacy for distinct personas.

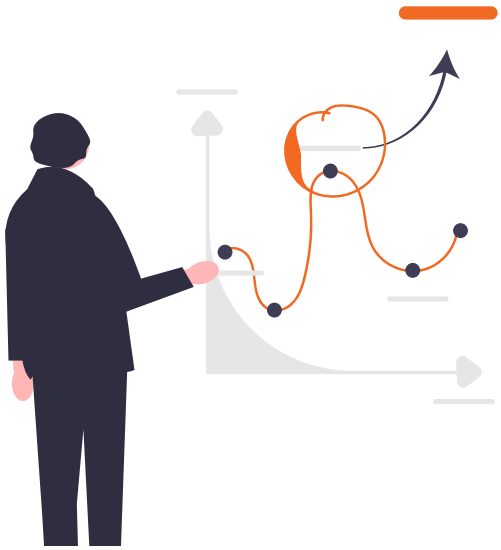
We use [a data catalog] to house our business glossaries and as a map of our data sources on-prem. [This] is helping our different departments use terms and metrics in a consistent manner... it is invaluable as a resource to our analysts on finding out the where and what of our data elements.

Jamie Hughes
Strategist, Large Healthcare Charity

To identify literacy gaps, data leaders must understand current data literacy levels and build targeted, tailored training curricula to close those gaps for the different roles. Communities within organizations can build communication pathways that encourage the use of data and drive better decision making. These communities can also host events like town halls, curation events, and competitions, to spotlight successful use cases and encourage others to learn from them.

Key **data literacy** capabilities to consider include:

- **Business glossary.** Creating a business glossary aligns key business and data terms, supporting consistent usage frameworks. For example, how do you define "profit"?
- **Intelligent SQL editor.** This tool guides users as they write SQL queries by showing useful information, such as column definitions, propagated from a supporting metadata store such as a data catalog.
- **Wiki-like articles.** SMEs should be able to document how an asset was used and link to other related assets so newcomers can quickly get up to speed.



Data Governance

Leaders at mature data organizations understand the value of data governance. Data maturity requires robust data governance efforts with detailed roles and responsibilities and documented policies. In this way, data governance leads to improved data cultures and higher data curation rates.

While more mature firms will have a designed, deliberate data governance framework in place, less mature firms will gravitate toward governance by default; that is, governance that is reactive to regulation and compliance needs. In such firms, governance structures are invisible and most people fail to understand their responsibilities to data. While some structure for responsibility, accountability, and oversight may exist, other governance pillars, like curation, will be overlooked.

Of course, compliance is a central objective of data governance. With documented policies, leaders can monitor compliance and audit data at scale—and in this way support overall compliance with government or industry regulations.

But this is not to say that compliance is the sole purpose of governance. On the contrary, governance efforts also pay off with improved search & discovery capabilities, improved data literacy, and superior data quality. It increases trust in the data from within the organization and encourages data-driven decisions.

Data quality can have a significant impact on our business. This means the challenge of data integrity and availability of trusted data is core to everything we do.

James Wood
Head of Data Platforms, Loyalty NZ

Governance-related monitoring and audits also identify opportunities for improvement, potential risks, and areas of unrealized value for data maturity programs to address.

A data catalog can support your data governance journey. Key **data governance** features to consider include:

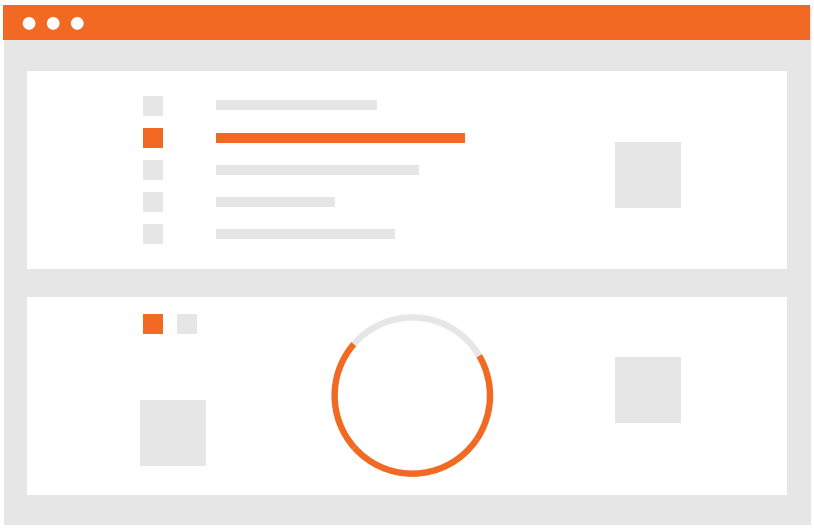
- **Policy Center.** Your catalog should empower you to create and centralize policies, and link them to relevant data assets.
- **Stewardship.** Stewards need tools to address quality, classify data, and automate policy assignments at scale.
- **Lineage.** When an asset is deprecated, speed is critical. A catalog with impact analysis and upstream audit will spotlight where engineers should triage and automate warnings to downstream users.

The Alation Data Maturity Model

With the above framework as a guide, developed from working with hundreds of customers, this model details the data maturity spectrum organizations can advance across. Much care has been taken to distill these specific areas, subcategories, and levels to create a comprehensive evaluation without requiring excessive time.

The Alation Data Maturity Model uses a statement-driven approach to enable straightforward evaluation of any organization's data maturity across five levels. Simply read the statements and evaluate if you have reached that level in its entirety. Organizations may fall between levels, which implies they have not yet reached the next level of maturity.

A fully mature organization, which has reached the top levels in all 4 areas, is very rare. Yet most proactive organizations progress equally in these areas. Even the most mature organizations have room for incremental growth and improvement.



The four key areas and subcategories are as follows:

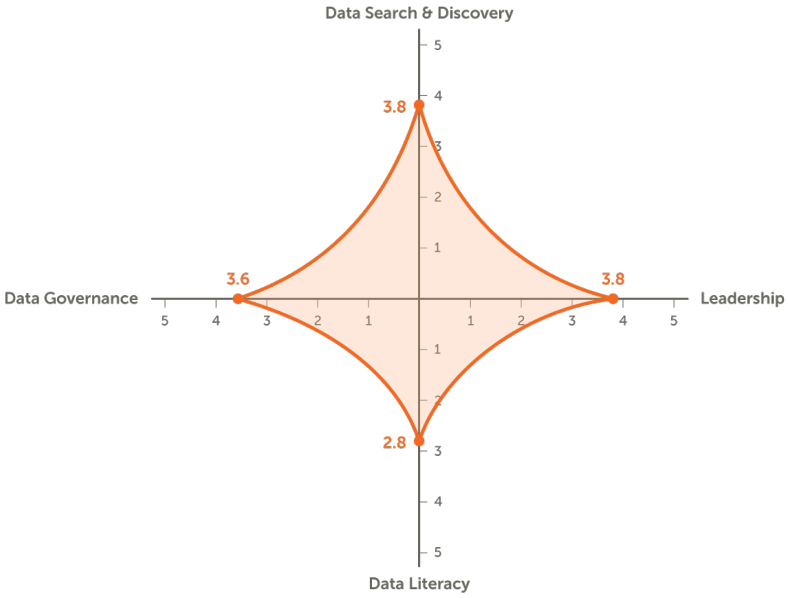
Data Governance

- **Governance Framework** — level of formality and structure for data responsibility, accountability, and oversight
- **Documented Policies** — visibility of formal data principles and policies
- **Application of Policies** — deployment and level of adherence to documented data policies
- **Documentation** — capture and usage of technical business metadata
- **Monitoring of Governance** — responsibility, accountability, and maintenance of governance efforts

Data Search & Discovery

- **Data Discovery** — how data is found
- **Self-service Outcomes** — how data program leaders engage with data users
- **Data Enablement** — creating a network of data stewards who serve as subject matter experts for specific assets
- **Curation** — how organizations take responsibility for data and its usage
- **Measuring Activity** — how data usage is analyzed and improved through analysis

Overall Scores	
Data Search & Discovery	3.8
Data Literacy	2.8
Data Governance	3.6
Leadership	3.8



Data Literacy

- **Analysis Preparation** — tools and processes used to evaluate and present data
- **User Understanding** — how data programs leverage data users to improve data literacy
- **Skills Determination** — understanding the skills required, and related gaps, to reach data maturity goals
- **Learning and Development** — how structured and formal trainings are deployed
- **User Communities & Events** — participation with other internal and external data users

Data Leadership

- **Change Program** — data team's level of understanding of the data platforms
- **Sponsorship** — executive sponsor's level of engagement and visibility across the organization
- **Onboarding Assets and Consumers** — how new data and users are onboarded to the data program
- **Business Value** — level of understanding across the organization of data's value
- **Business Outcomes Focus** — how leaders understand and take advantage of data's value

Using the Alation Data Maturity Model

The Alation Data Maturity Model enables organizations to benchmark current data management practices against reasonable maturity levels. Data leaders can then identify strengths and weaknesses and use those insights to create and prioritize a holistic data strategy. They can also use insights to justify and gain executive buy-in for data program budgets and make other leaders aware of the data opportunities available while rallying support for improving data literacy.

Once leaders are on board, data programs can begin to put the model's advice into action. The model also provides detailed benchmarks for qualitatively measuring progress toward data program goals and outcomes.

A Data Maturity Case Study

A European convenience store and supermarket brand runs approximately 1,500 stores with the effort of nearly 200,000 workers to generate nearly $29.8 billion in annual revenue. But, its teams didn't have a centralized access to trusted, accurate data, which led the company on a journey to assess and advance its data maturity by selecting Alation as its data catalog.

As part of its cloud transformation, the company had chosen the Snowflake Data Cloud. They sought to make this new cloud environment more purposeful, transparent, and helpful to more users.

The team's journey began with their realizing the value of search: if data wasn't findable or understandable, it was less useful to the organization. To that end, they began by documenting data in Snowflake, identifying data ownership and purpose.

However, there were no checks and balances against the information being shared, creating inconsistencies in the descriptions and metadata assigned to assets. To address this, the team focused on aligning business needs and providing data literacy training for data consumers. Experts shared insights across organization, increasing awareness and

understanding of available data. Continued, regular showcases from leadership enhanced comprehension of the data platform.

Today, the company continues to invest in Alation and its data maturity efforts. As part of our work with the company, we conducted a Data Catalog Value Index (DCVI) assessment to evaluate the return on investment of making Alation available to more workers, which the company quickly acted upon.

In just the few years since launch, Alation has helped the company save over 50,000 search hours, over 100,000 comprehension hours, and over 12,000 query-writing hours. Combined, the company calculated a total savings of just under $4.9 million.

"We cannot understand or trust our data without a data catalog," added the company's Chief Data Officer.

The Business Value of Data Maturity

Case study from European convenience store and supermarket brand

50,268	100,537	12,222
Search hours saved	Comprehension hours saved	Query writing hours saved
↓	↓	↓
$1.51M	$3.02M	$365k

Source: Alation Business Value Engagement 2022

Start Improving Your Data Maturity

You may be wondering, "How can I get started?" Start by having a look at the maturity model and socializing it to relevant teams. Use the model to host honest conversations with them. Foster a trusting environment, and encourage people to deeply consider where they sit before you speak. Be candid and be brave. Some areas of the business will be more data mature, others will just be starting out...and that's okay!

Use the assessment to identify gaps in key functions like data governance, quality, security, analytics, and integration. You can then use these insights in a number of ways. Some teams may choose to take them to leadership to make the case for investment in proper training and tools. Others may use them to form action plans (or a *program*) to close these gaps.

While the goal of a data maturity *assessment* is to gauge your organizational maturity level, the goal of the *program* is to put those learnings into action, enable people with data, and improve how they make use of data to enhance business performance. A robust data maturity program also involves employee training on best practices for supporting a data culture, and employs monitoring and evaluation to ensure compliance and ongoing enhancement.

The flow of a typical data maturity program is:

1. Capture current data management practices
2. Identify strengths and weaknesses
3. Develop a data strategy tied to business objectives
4. Prioritize focus (and pragmatically adjust to align with leadership priorities)

During each stage, it is important to maintain a focus on the following areas:

- The architecture of the data infrastructure
- The quality and consistency of metadata
- How data stewardship is to be fostered and administered
- The mechanisms to enable data governance
- The critical importance of data quality
- The processes and incentives for the broader organization to engage in a data culture

Clearly, the ability to manage and use data effectively drives results and improves outcomes. Again, it takes work. But with time and effort, the business results of advancing data maturity make this work a wise, long-term investment.

Get started today. Review the model in the appendix to learn more. Share it with your colleagues to begin your journey to data maturity.

To learn more about how Alation can help, visit us at alation.com.

Data Search & Discovery

Topic	Foundational	Developing	Intermediate	Advanced	Optimized	How can it be made better?
Data Discovery	Data discovery relies on team members' knowledge of data and where it is hosted to find it. It is improvised, without process and can take time.	Documents critical assets in the catalog with relevant metadata. It relies on improvisation or significant assistance to make data available to the business.	Documents all critical and some important assets in the catalog, with relevant metadata. The data is available to those who need it through efficient, structured routes. Some data requires assistance to gain access.	Documents all critical and important assets in the catalog with the relevant metadata. The data is available to the business through the catalog and is well-documented. Users can access most data without assistance.	Documents all critical and important assets and makes them fully findable by all authorized users. Users are consistently able to access, use or re-use the data they need without assistance.	Identify the data assets in the business that will give you the most value to document and share. This will allow your organization to reap the benefits from the shared data faster and more effectively. Talk to your users to understand what they need to do with the data and their workflows.
Self-Service Outcomes	The data team works with some internal users of the organizations' data to develop outcomes. Only acts when the business approaches them.	The data team works with some internal users of the organizations' data to understand their business needs. Beginning to develop outcomes for prominent areas of the business.	The data team is generating an understanding of key users to define their business needs, and developing outcomes for the most prominent areas of the business.	The data team nurtures relationships with key data users to understand their business needs. This is undertaken across many areas of the business.	The data team fundamentally understands the organizations' requirements for self-service outcomes and can respond to users' requests as needed.	Working with the business units that will be using your data solution is critical. They are the people in the organization that will drive usage and adoption of any platforms that are delivered by the IT organization. Having the use cases understood allows your team to deliver the value that is required by the business to make better decisions.
Data Enablement	Has no specialized data roles and is not recruiting to fill comprehension gaps. Team members have no specific responsibilities for data.	Individual team members use data in their day-to-day roles with no specific responsibilities for data. The organization is considering training and assigning responsibilities for data.	Establishing responsibilities for data in the most prominent areas and assigning these to organizational roles. Providing guidance and training to these newly appointed roles.	Assignment of data assets to responsible parties across the data estate and organization is in place. Training and guidance are provided and made available; only some take advantage of it.	Assignment of data assets to responsible parties across the data estate and organization is in place. Training and guidance are well publicized and used, with a solid commitment to upskilling the organization in data and analytics.	Grant responsibility for the stewardship of the data within the business: it puts the onus on the people using the data daily. This will ensure that required updates/ changes are acted upon in a timely fashion, rather than being on a long IT to-do list. This can seem daunting at first for the stewards, but when the role becomes part of the norm, they will find that the ad hoc asks from others in the business will be reduced.
Curation	Data is only worked with when there are direct requests from the business. The responsibilities of this work fall to IT by default. The curation of data assets is minimal.	Data is seen as the responsibility of IT. The team working with the data has little understanding of the business objectives. The curation of assets is broadly technical, with little business context.	Roles are defined for data management, with responsibilities assigned within the team. Best practices are followed, but there are few links to business outcomes. The curation of assets has started to include business context.	Roles are defined for data management, with responsibilities assigned within the team, with good visibility. Team members understand their responsibility to keep data assets up to date. Has a majority of data assets curated.	Every team member interacting with data understands their responsibility to consistent data management practices and how the data asset links to business outcomes. This has led to all data assets considered live, being curated, trusted, and available.	Having people within the business own the responsibility of documenting the data is critical to the success of any data platform. They are the people who can put context around the data and its importance to the business, in order for others to understand its position within the business and the context around it quickly. Get high-level sponsorship for this program and have the execs drive initiative.
Measuring Activity	Does not review activity across data assets or know who is using what data or how often.	Reviews activity on an ad hoc basis through quantitative or qualitative means.	Consistent periodic review of activity across data assets within the organization for a small number of team members.	Regular periodic review of activity across data assets being used or curated within the organization for a small number of leaders.	Visibility on what data assets are being visited, used, curated and managed by a steward. This activity is reported on at an executive level consistently.	Actively seek to measure where data is being used within the business. This can be measured with the use of query log ingestion and Alation analytics. Firstly you have the option to understand which sources are being queried the most often and then what is being accessed via the catalog.

Data Literacy

Topic	Foundational	Developing	Intermediate	Advanced	Optimized	How can it be made better?
Analysis Preparation	The analysis is ad hoc, manually developed and reworked. Little thought is given to the context or medium of presentation.	The analysis is ad hoc, manually developed and reworked. Thought is given to the context or medium of presentation.	Some users have been given access to explore data and develop reports. Data wrangling is often needed, which requires specialist data knowledge and support.	Most users have been given access to explore data, which has been well organized and made available for presentation. Analysis is possible with little specialist data knowledge. This requires little support from the data team.	Presentation data is made available for use by anyone that needs it. Business context and objectives have been considered in its design, and it can be used in any presentation medium. Analysis and presentation require little to no support from the data team.	Improving data literacy can be achieved with a sustained campaign of training and communication. Helping people within the organization understand how critical decision-making with the use of data has become a key competitive advantage for an organization.
Under-standing Users	There is little knowledge or awareness of the data users within the organization. Data requirements are driven by regulation and not by organizational outcomes. Users are not considered in the development of data assets.	Understands some of the data users' needs within the organization but does not consider them when developing data assets.	Understands some of the data users' needs within the organization. These needs are starting to be considered in the development of data assets.	Users' needs are understood in certain areas of the organization and are being incorporated into the development of data assets. Organizational outcomes are starting to be considered.	Users' needs are well understood across the organization and applied in developing all data assets. Organizational outcomes are always considered.	IT need to engage with the business users to understand the use cases for data. Without their tapping their tacit knowledge, the delivery team will often have to guess as to what needs to be delivered. With collaboration between the business and IT, project/product delivery will become more effective.
Skills Deter-mination	Has little understanding of the skills required to develop a data community within the organization has no knowledge of current capabilities.	Looking at ways to develop users' knowledge and hire new team members to fulfill roles identified in gap analysis.	Looking at ways to develop users' knowledge and hire new team members to fulfill roles identified in gap analysis.	Has a good understanding of the skills required to build a data community. Training and coaching is available for all team members to assist in skills development.	Skills required are well understood. Training and coaching is offered to all team members who take part in data and analytics activity.	An organization first needs to understand the level of literacy before making a plan to address the gaps. Running a skill gap analysis across representative parts of the organization will allow a plan to be formed that addresses the gaps. Personas will need to be identified, followed by a curriculum created to cater to their needs. This should include training and change management practices in order to deliver an effective program.
Learning and Development	Team members data skills are acquired through experience and no formal learning is provided.	Training is provided to team members for data tools used by the organization.	Training is provided to team members for data tools used by the organization.	Team members identified as key data users have well established skills and regularly update their knowledge. This helps to improve data and its use across the organization.	Team members are encouraged to attend training and community events regularly, in order to keep their skills current.	Having a robust training plan for existing team members and new starters is critical to the success of any data program. Take the information learned in the skill gap analysis and develop a curriculum that helps fill those gaps. This plan should be persona-based, ensuring the right people get the right training for their role.
User Communities & Events	Does not engage with external or internal data communities. Only the data team or IT is involved in the collaboration of data. This does not extend to the rest of the organization. Usage and understanding is siloed.	Value is seen in engaging with data communities, both internal and external. Some team members are being supported in participation. Ad hoc events have been set up to explore the data paradigm with several business units. Champions are being engaged to work on curation of data assets. A data community is starting to build within the business.	Value is seen in engaging with data communities, both internal and external. Some team members are being supported in participation. Ad hoc events have been set up to explore the data paradigm with several business units. Champions are being engaged to work on curation of data assets. A data community is starting to build within the business.	Engagement with internal and external data communities is encouraged and communicated. This is available to all team members. Regular events have been set up to engage data conversations across the business. A broad data community is established, with champions in many domains, and meets to discuss data and its role within the business.	Participating in external events and thought leadership. Broader data community consistently engaged in events that are designed to enhance the use of data within the organization, including but not limited to the data community, town halls, curation events, and competitions. Champions are engaged across the data estate and have the asset curation well formed.	Community drives the heart of an organization. If there is no community around data then projects will die on the vine. Establishing communities with active communication pathways, whether physical or virtual, will help encourage the use of data and drive better decision-making.

Data Governance

Topic	Foundational	Developing	Intermediate	Advanced	Optimized	How can it be made better?
Governance Framework	Governance is in place by default, rather than as a programmatic well considered business process. This information is not published or shared with team members.	Governance is in place with accountability defined, but it is not broadly shared with the organization. Application of governance and monitoring is not consistent.	Governance is monitored and policies are documented. There is a consistent application of governance across the organization.	Governance is monitored and policies are documented, with accountability for regular updates assigned to the relevant roles. There is a consistent application of governance across the organization.	Governance is monitored and policies are documented, with accountability for regular updates assigned to the relevant roles. There is a consistent application of governance across the organization. Leadership communicates with team members to help them understand organizational context.	Without having defined roles and responsibilities for data governance, you see lower adoption of data, lower curation rates of assets, and lower overall governance. Roles created for the management of data governance is critical to the success of a framework.
Documented Policies	Policies are only documented where they need to be, as enforced by regulation.	Policies are documented and published, but are not well socialized. This leads to a lack of understanding in the organization.	Policies are documented and published, and are starting to be socialized. Some understanding is starting to spread across the organization.	Policies are documented and published in the catalog and are well socialized. Updates to policies is consistent and supported by communication from leadership.	Data principles and policies embedded and governed with clear visibility across the organization and, if relevant, to the public.	Data policies are critical for compliance with data. This relates to GDPR, HIPPA, CCAR, BCBS239 and many more. Without documented policies, you cannot prove to the governing bodies that your organization is compliant. Start with the documentation of assets that are most at risk.
Application of Policies	Policies are developed on an as needs basis, with little thought to their application in a formal data strategy.	Policies are being developed with a formal data strategy in mind and how they may be applied.	Policies are being developed with a formal data strategy in mind and are being applied to the relevant data assets.	Communications of policies and their application is being delivered in order to support the formal data strategy.	Communications of policies and their application is being delivered in order to support the formal data strategy. All policies are reviewed through a workflow to ensure complete sign-off before application.	Once all data-related policies are documented, implementing them is critical for compliance. Start with the policies that cover the most risk and ensure adherence. Regular audits of policies take place to manage the risk of non-compliance with new laws.
Documen-tation	Very little business or technical Very little business or technical metadata is being curated.	Only business or technical metadata is being documented for key sources.	Business and technical metadata is being documented for key sources.	Business and technical metadata is being documented for key sources by stewards across the business.	Business and technical metadata is being documented for key sources by stewards across the business. Is updated on a regular basis, so the information is always current. The documentation that covers several areas, is linked, and can be navigated with ease from anywhere in the business.	Higher levels of documentation leads to higher levels of search & discovery, as well as data literacy. Through business leadership, enable the data owners to become stewards of the data. When they own the responsibility for stewardship and are prompted for updates, documentation will be up to date.
Monitoring of Governance	Documentation and policies are only developed to satisfy regulatory needs. There is no monitoring of data governance in place.	A catalog is in place for maintenance of policies and assets. Accountability for the assets has not be defined or assigned, nor made available within the business.	A catalog is in place for maintenance of policies and assets. Accountability for the assets has been assigned, but those held accountable are not within the business, and do not update the policies regularly.	A catalog is in place for maintenance of policies and assets. Accountability for the assets has been assigned, and those held accountable are within the business. Governance is periodically monitored and they update the policies semi-regularly.	A catalog is in place for maintenance of policies and assets. Accountability for the assets has been assigned, and those held accountable are within the business. Governance is regularly monitored and policies updated regularly.	If you don't track performance of data governance, you will not know how your organization is performing or where the risks still lie within the data estate. Develop reports that enable you to understand the level of curation of your assets and the mandatory items that need to be completed for compliance.

Data Leadership

Topic	Foundational	Developing	Intermediate	Advanced	Optimized	How can it be made better?
Change Program	The data team has basic data training, though they are not applying this to general practice in their roles. They do not understand the value and are not incented to do it. No formal change management in place to guide organizational change/ adoption/effective utilization of data program tools/processes.	The organization team members have heard of the data platforms and the reasons for them but do not fully buy in. They have basic data training, but are not very confident in applying it. Communications have been issued but no reinforcement or incentives have been planned.	The data team understands the importance of the data platform tooling, they are well versed in data platforms tooling and training, and are using them. However, the organization's team members still lack training and confidence to fully utilize the platforms. Communications are sporadic and reinforcement and incentives are uneven. Short-term change management activity has been planned.	The data team understands the importance of the data platform tooling. The data team is well trained in the data platforms tooling and are utilizing them consistently. They have become advocates to the broader data community. The organization team members are engaged and using the data platforms. There are some links between usage, incentives, and rewards. A long-term change management program is underway to support the use of the data platform.	The data team understands the importance of the data platform tooling and has fully bought in. They understand how the data environment connects to organizational objectives and supports overall performance. Team members are well versed in data platforms tooling and training and are utilizing them consistently. They have become advocates to the broader data community. The organization team members are engaged and using the data platforms. Communications, training, and reinforcement is fully embedded in the organizational operating cadence and reward system. A change management framework actively leveraged to commence/sustain program goals/objectives.	"There are 3 pillars of a strong change management program: 1. The team understands the reason and how it will make the organization — and them personally — perform better. This should be part of a comprehensive communications plan. 2. They have the skills and ability to do the work. 3. They are incented and rewarded for using data tooling. To truly enact this, make sure that it's built into the operational cadence.
Sponsorship	The sponsor is not engaged regularly. There may not even be a sponsor who's truly identified.	The sponsor owns the responsibility but their activities are sporadic and not fully integrated.	The sponsor is known and speaks up on the importance of a program.	The sponsor is known and speaks up both to consumers and other leaders about the importance of a program. They know how to draw the connection between organizational priorities and the data program.	The sponsor is known and speaks up regularly about the importance of a data program. They are widely respected as an authority on the topic. They consistently explain the importance of a data program to organizational priorities. They have a set cadence of communications to consumers and drive alignment in the organization around the data program priorities.	Find a respected exec within the organization who can describe why a data strategy is needed and visible to the organization. They should present regularly both to their peers and to the consumer base on the progress that has been made with the program, and highlight gains. They should fully understand why and how a data program supports organizational priorities.
Onboarding Assets and Consumers	No go-forward plan for the data platform. Structures have not yet been set in place as to how sources and users will be onboarded.	Leadership has stated and chosen 2–3 sources onboarded into the data platform, along with a number of users that service those sources. There is no further plan for rollout. Admins and initial stewards have been onboarded.	Leadership has engaged the data team with the wider business to gather use cases that will require data sets. Several data sources have been onboarded into the data platform across the business. There is a start of a process for onboarding data sources and users. Further stewards and viewers are starting to be onboarded.	Leadership has developed a core message that is being disseminated across the business to engage the data team in the onboarding of data assets. Some cross-organizational data sources have been onboarded within more than one domain. A process for onboarding data sources, admins, stewards, and users is being mastered.	The organization is fully aware of the onboarding process for data, as it has been built into the operational fabric of data management. Cross-organizational data sources, across many business units and domains, are documented. Mature process for the onboarding of assets and all users onto data platforms is in place.	Have a plan for the assets that need to be onboarded. Start with the data sets that are most important for the business. The users that are the stewards for these assets need to be onboarded to ensure any required documentation is written. Do not onboard users before there is something for them to explore and understand. Users will not return if they find no value in their first visit.
Business Value	There is no clear link between the use of data and the business value. The only documentation is a high-level use case justification and a list of features and functions	There is a qualitative understanding of challenges and business pains but those are either at the team level and siloed or anecdotal and not tied back into the organizational priorities.	There is an outline of key use cases and how those will be supported by a robust data environment. Some input metrics have been identified but they remain disconnected from the larger organizational objectives. Some queries are set up and there is a beginning of a reporting cadence on adoption and uses.	The organization's need for data is tied to higher-level strategies. There is a roadmap that outlines key use cases and how those will be supported by a robust data environment. Input metrics have been identified and are reported on but are not fully comprehensive or understood. Some queries are set up and there is a beginning of a reporting cadence on adoption and users.	There is a clearly articulated and communicated monetary value for a data intelligence platform impact on each project. The organization's need for data is tied to higher-level strategies. There is a roadmap that outlines key use cases and how those will be supported by a robust data environment. Input metrics have been identified and agreed upon. They are reported on a regular cadence, fully comprehensive, and understood. Queries are set up and there is a beginning of a reporting cadence on adoption and users.	Measuring the business value of any software purchase is critical to understanding the success of the work and investment. If the value can be articulated efficiently, then those responsible for budgets can easily make decisions on the investment. Having this measurement in place helps you understand your current position and easily find areas for improvement.
Business Outcomes Focus	Leadership is unaware or does not comprehend the business risk in managing data incorrectly.	Leadership is starting to link data with business outcomes. Projects are being undertaken to develop data and analytics, but the requirements do not necessarily support the expected business outcomes of the organization.	Leadership is aware of the benefits of good data management to the organization and how that may be applied to business outcomes. The application of data to business outcomes however is still inconsistent.	Business outcomes have become the focus of data management projects. Leadership understand that projects that are linked to business outcomes will be more likely to succeed.	Sponsors of data management projects will work with the data teams to ensure that all assets are linked to business outcomes from the outset.	Leaders stress that any work that is carried out regarding the data platform is always linked to a business outcome. Without the outcomes being defined, budget will not be allocated to the project.