A Data Governance Manifesto: Designing and Deploying Sustainable Data Governance

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“A primary lesson of history is that periodically, and often at the most inconvenient times, society needs to make a sharp break with old habits and deliberately learn new ways of behaving.”

— from Jumping the Curve, by Nicholas Imparato and Oren Harari

The need to compete transcends human nature, acting as a driving force in corporations. Competition has impelled a variety of business innovations, from inspired advertising to savvier strategies. Technology advancements are among this list of innovations, having played a critical role in helping companies stay ahead of the competitive curve. The availability of information—through a combination of evolving integration technologies, faster processing power, intuitive user interfaces, and search—allows business people to exchange and analyze it faster and more proactively than ever before.

But easier information sharing is accompanied by additional complexity. An Information Week study found that the average company’s data volumes nearly double every 12 to 18 months. This data comes from a vast expanse of systems both within and outside company walls. As more business people rely on more data from more sources, inevitable questions arise about meaning, format, lineage, value, and usage of that data. Lines of business are confronting the truism that knowledge is power and are increasingly laying claim to their own information. The need for sustained and sanctioned data decision making has grown apace.

Further driving the need has been the emergence of customer data integration (CDI) and master data management (MDM) technologies. Purpose-built hub technologies let companies integrate disparate data from across multiple silos into commonly-defined, reconciled information accessible by a range of systems and business users. When it comes to unifying information from across organizations and systems, MDM solutions have instilled a newfound awareness within both lines of business and IT of how data quality, conflict resolution, access rights, and ownership of data affect the business.
The aspects of data ownership, policy-making, and decision making authority around data are encompassed in the term *data governance*, which we define here as the decision-making and oversight process that prioritizes investments, allocates resources, and monitors results to ensure the data being managed and deployed in companies is valued, aligned with corporate objectives, and leveraged to support business needs.

Companies with effective governance processes are said to generate up to 40 percent higher ROI on their IT investments than their competitors. The term “governance” has transcended corporate management, filtering down to specific assets, including technology, cash, fleets, and enterprise data. As executives realize that governance spans multiple assets, they realize that—as with corporate governance—they need formal mechanisms and organizational structures to manage those assets. The goal of data governance is to establish and maintain a corporate-wide agenda for data, one of joint decision making and collaboration for the good of the company rather than individuals or departments, and one of balancing business innovation and flexibility with IT standards and efficiencies. It’s a joint effort between the business and IT, and one that’s so far been at best misunderstood, and at worst poorly practiced.

**Struggles of the Early Adopters**

While the concepts and terms around data governance are new, the practice itself is not. Companies have been trying to build consensus around data policies since the inception of cross-functional databases in the 1970s. Efforts to align decision-making around corporate information have been less than successful.

The obvious reason is corporate politics. Departments and individual business people want their data the way they want it, and arguments that speak to the “greater good” fall on deaf ears when the Sales team’s definition of “revenue” means “billed revenue” and Finance’s means “booked revenue” and the company’s financial systems don’t reconcile. Despite the business benefits, formalizing corporate-wide data standards and policies has been a tough sell.

Indeed, some managers preemptively abandon attempts at data governance, recognizing that unified, consensus-sanctioned data definitions will simply never happen. Others already view data governance as a four-letter word. Their efforts to build and maintain agreed-on data policies have backfired. There are four primary reasons for the failure of data governance so far.
1. When Data Stewards aren’t enough

In an attempt to streamline enterprise MDM and data integration efforts, more companies have begun establishing data stewardship as a formal job function. Best-practice organizations distinguish between technical data stewards, who track the lineage of enterprise master data across heterogeneous organizations and systems, and business data stewards, who are responsible for ensuring that master data meets the range of cross-functional business requirements and serve multiple business processes. It’s the business data stewards who are typically expected to bring data governance to life.

However, individuals intimate with the definitions, requirements, and use of specific data for business purposes often come from positions where they themselves had a “hands on” role in data analysis or usage. These individuals, while critical to the success of MDM, data warehouse, and business intelligence projects, may nevertheless lack the organizational clout to influence development and participation in a business-sanctioned data governance undertaking.

Moreover, as close to the data as they are, data stewards often make the honest mistake of confusing data governance, the high-level policy making and arbitration of data decisions, with data management, the execution of those decisions. Data management involves the day-to-day activities—including data modeling, metadata definition, data correction and cleansing, and other tactical work—to ensure that the data meets ongoing business needs. Data stewards are usually at the helm of data management, whereas in the data governance process it’s the senior managers from divergent organizations who are the company’s data stakeholders.

Truly effective data governance efforts should ensure the ability to execute on the policies resulting from the governance process. As we’ll see later, data stewards, while unlikely to single-handedly carry a data governance effort, are still integral to its success.

2. Failure to Launch: Why the “Kickoff and Cold Cuts” Approach Doesn’t Work

Many companies begin data governance by way of a lone visionary—often, but not always, a data steward—who sees the need to establish data tie-breaking. This person may be on the business side and in need of higher-level policies on, say, rules for internal distribution of customers’ social security numbers, or whether to support a business partner’s recently-established product codes.

After some informal conversations with peers who’ve had their own data struggles and securing the verbal blessing of a superior, the visionary schedules a meeting and invites a cross-section of business people and IT representatives whose job responsibilities all touch the data in some way. In order to secure attendance, the visionary orders lunch from the corner deli.
When the meeting convenes, the visionary makes a short speech about how the company needs to get its data act together, and may even throw out the sound-bite of “data as a corporate asset.” Heads nod. Then people share anecdotes about the problems their organizations have finding, accessing, defining, reporting on, or understanding corporate data. The visionary asks everyone whether they will agree to participate in monthly data governance “council” to resolve these issues on behalf of the company. Heads nod again.

The next council meeting is not as well-attended, but people again share their issues with corporate data. Someone in Finance complains that month-end sales reports don’t reflect in-arrears payments. Someone else accuses the marketing group of not being willing to share its customer segmentation models. Heads nod. The next data governance council meeting has a paltry attendance. The visionary has asked a data modeler to come in and provide status on how the party data model is shaping up, no one provides any feedback, and few members eat their lunches and politely excuse themselves before the meeting ends.

And so it goes. Many data governance councils start with a bang and end with a whimper, leaving participants wondering about issue resolution and outcomes. It’s all too common for data governance councils to simply fade away.

3. Prematurely Enlisting Executives

The threat of looming data volumes prompts some people to enlist executive management in taking up the data governance mantel. After all, spurred forward by the Enron and WorldCom scandals and governmental compliance mandates, the company has made significant progress in corporate governance. Data governance, the reasoning goes, should also factor in to enterprise-level decision making.

Sometimes it’s a well-meaning IT manager who sees the likelihood for data duplication and quality errors to get much worse. Sometimes it’s a business person weary of conflicting figures in the weekly Top Line report. Either way, as data issues bubble to the top, people want executives to hear the dire predictions. They will often schedule time with C-suite managers to solicit their support for a data governance project.

When faced with real threats to their business most executives will support the effort to fix what’s broken. Some will agree to fund data governance, and even attend the first council meeting.

But executive managers believe that their value lies in their support, not their participation. Executives have limited time and a lot to do, and truly effective executives rely on talented line managers to make things happen. It’s likely that the CEO or CMO will make an appearance at an initial data governance meeting, encouraging the team to bravely move ahead and streamline the information value chain for the company. But then executive involvement inevitably recedes, council participants are left with the same decision making and accountability difficulties they had before the executives weighed in.
4. Grassroots Governance and Why It’s Fraught

Some people who understand the need for governance are circumspect about the political and ownership struggles likely to accompany a cross-functional body of participants, and decide to start data governance in their own little corner of the company.

Policy-making at the organizational level might well work, as long as the data in question stays within that specific business unit. But usually the need for specific data subject areas and elements extends beyond the boundaries of a single department. Departmental colleagues, unconstrained by the power struggles and conflicting perspectives, can make significant progress establishing the decision-making process and rules for their own data.

A marketing department at a wireless telecommunications firm recently did just that. A data council within the group decided that it would add fax communications to its set rules for customers on the company’s Do Not Call list. Though not covered by the same FCC regulations, faxes from marketing had resulted in a recent rash of customer complaints. Citing regulatory efficiencies and customer satisfaction scores, the marketing data council directed database administrators to remove fax numbers from the profiles of all customers on its Do Not Call list. Unfortunately, no one bothered to share the new policy with the customer service department, which regularly relied on faxes to confirm trouble tickets for customers without e-mail addresses. Recovering the deleted fax numbers took weeks.

When launching their data governance efforts, most companies make the all-too-common mistake of enlisting people before defining the processes and outcomes for governance. However, without a sound description of the problems being solved, as well as clear communications around key decisions and the authority to make them, data governance can fail before it really begins.

Data Governance with Teeth: A Programmatic Approach

As professionals begin hearing of backfired data governance attempts, they seek out case studies of how other companies have succeeded in their data governance efforts. However there are far too many organizational, cultural, ownership, definitional, and policy factors involved in data governance to rely on a template of cross-the-board best practices. Weill and Ross discovered that the companies that excelled at IT governance created their own frameworks.iii As with IT governance, data governance must be deliberately designed before it’s launched.

Indeed, like the data that it addresses, data governance should have its own lifecycle which ensures that the data governance process is deliberate, evolutionary, and tune-able, as shown in Figure 1:
The four steps in creating a truly sustainable data governance framework are described below.

### 1. Designing Data Governance

As a product manager at a credit union recently explained, “I thought we could just get a bunch of decision makers in a room and hash it out. But ultimately none of us really knew what ‘it’ was.”

Design as a deliberate first step ensures consensus of need, problems and issues to address, and key decisions that need to be made. The process of thinking these issues through encourages an understanding of the mechanics of governance, and protects against later accusations of grandstanding or empire building. Data governance design involves:

- **Assessing the organization’s readiness**: A series of questions can be asked and answered that serve to realistically gauge the organization’s ability to accomplish the desired results.
- **Defining guiding principles**: Guiding principles are a set of statements that describe the basic doctrines or rules of conduct for building data governance. One guiding principle we’ve seen at more than one company is a variation of: “Data governance will assume data issues as they correspond to strategic need and established business priorities.”
- **Identifying decision-making bodies**: This means resolving who will make data governance decisions, who will offer influence and input, and how they will interact.
- **Defining decision areas and decision rights**: Governance means establishing decision-making protocols through which fundamental “go/no
go” decisions will need to be made. Decision rights indicate who arbitrates and who makes those decisions.

- **Identifying governance mechanisms**: Mechanisms are the formalized processes and tools that will be used to implement data governance. For instance, a company’s budget approval process might be a mechanism for prioritizing data policy decisions.

- **Developing platforms and capabilities**: The governance bodies will ultimately need mechanisms for tracking, reporting, and monitoring the progress and results of data governance.

Designing data governance should involve actual data stakeholders from IT and business groups, assembled as a “core team.” From the IT side, data stewards or database specialists should participate, along with one or more IT managers. On the business side, more than one business unit should be involved in initial design discussions. Representatives from the IT Program Management Office (PMO) or Quality Assurance organization should be invited to participate. While members of the core team might actually sit on the data governance council, their real job is to consider the desired outcomes.

Core team members should have management buy-in—an executive sponsor should be aware of and sanction the design activity—but only after the design process should an executive sponsor ultimately be enlisted to support and guide data governance to the next step.

### 2. Overcoming Organizational Barriers

Perhaps the biggest challenge in any governance effort is changing often-entrenched organizational behaviors. Individuals unaccustomed to making decisions, or a corporate culture that stresses consensus over clear accountability, may doom a governance program before it’s launched. Unclear authority or elusive ownership policies can sabotage the most necessary governance effort. The concept of decision rights introduced above implies that decisions need to be made, but that different levels of authority exist in making those decisions.

The organizational challenges that confront most data governance efforts include:

- Vague authority and accountability
- Ineffective planning
- Poor expectations management
- Unclear or ineffective communications
- Absence of decision-making protocols
- Lack of perceived value

The data governance design process should address these issues, and others that the core team believes are endemic to the organization. For instance, a hospital
An administrator in a regional health network recently complained, “I hear about all these big enterprise planning activities. Some of the committees even ask to interview me to get my opinions about what can be improved. Then I never hear another word, and I say to myself, ‘That’s an hour I’ll never get back.’”

Once the core team distills the organizational barriers that could sabotage a data governance effort, it should sit down with the executive sponsor and review the list. The team should ask a key executive—one whose organization has a direct stake in high-profile data, such as customer data—the following question: “Can you help us combat these phenomena so that we can make data governance work?” Only through an effective authority figure can cultural barriers be eliminated in the interest of moving data governance forward.

Decision rights and accountability structures should be informed by the cultural norms of the organization, but at the same time they may attempt to drive changes in organizational behaviors and customs in order to propel data governance forward.

Ultimately data governance should be driven by a decision making structure that tightly couples its components, as shown in Figure 2:

![Figure 2: A Data Governance Framework, © 2007, Baseline Consulting.](image)

The so-called “who” decisions—who makes decisions on specific data questions? Who should be involved in the decision-making? Who is the tiebreaker in terms of conflict?—should be made once the framework is well-understood and accepted by the design team and the executive sponsor—both represented in the Decision-Making Bodies area.
Some companies, especially mid-market firms or those that have five or fewer business units or are geographically centralized, can establish a single, authoritative data governance council to oversee the process. The council evaluates, arbitrates, and decides on the range of enterprise data issues. However, having a single decision-making body doesn’t mitigate the need for individual decision rights.

Conversely, larger companies with more diverse departments or that are geographically dispersed or global, are turning to the concept of governance “regimes.” These regimes adhere to a common set of standards established by a centralized data governance council, and follow processes set forth by the council, such as communicating policy decisions and new business rules. The regimes are likely to have their own meetings, as well as retain their own data stewards. They ultimately act locally, but think globally. Figure 3 shows an example of data governance regimes organized according to core enterprise business processes:

Figure 3: Data Governance Regimes, © 2007, Baseline Consulting.

Figure 3 illustrates three different levels of decision rights that support diverse organizations weighing in on different business processes. This organization’s philosophy was: He who owns the business process owns the systems involved in the business process. And he who owns the system that generates the data is directly accountable for the availability, quality, validity, and usefulness of that data.

This may be a complex and unfamiliar structure to some companies, and thus difficult to socialize. It could even be considered doctrinaire in organizations that
Data governance should only be launched once the data governance framework has been designed and decision bodies—including a sustained core team, regimes, if applicable, and executive sponsors—have been approved. Ideally this process will be incremental, beginning on a small scale with a set of data decisions and expanded once the process proves effective.

For instance, the financial services firm represented in Figure 3 launched its initial data governance effort in the Finance organization. The company had a consolidated bill profile initiative underway which would provide customers with a single statement across various product lines. Thus a customer could view her mortgage, her credit card, and checking account balances on a single page. While Sales, Customer Service, and Marketing all had various uses for customer account balance information, Finance would have the final say in how and when balance information was calculated within and across accounts.

This took the form of an initial meeting with the governance council in which Finance explained the business initiative and the data needed to support it. Other organizations weighed in, registering their interest and describing their own usage of account balance data. Measures for calculating balance were distributed after the meeting, and the data steward in Finance ensured that the calculations were implemented in the correct systems, and populated to the other systems that needed balance data. The entire workflow was then communicated at the subsequent data governance committee meeting.

4. Deliver Benefits

Data governance is about making data work for the business. As we’ve seen, data governance is by definition much more than a series of conversations. It instead involves a formal process and consciously-created work product. This means ensuring that data governance deliverables are evaluated and communicated in a regular way that shows the value of the overall governance process.

The benefits of data governance may include:

- **Improved business-IT alignment:** The more formalized the data governance process, the more it requires collaboration between business and IT groups. This closer working relationship has both tangible and intangible benefits, and may serve as the pretext for closer alignment in non-governance projects.
• **Balanced decision-making and authority:** Effective data governance will ensure against the “squeaky wheel” syndrome, where the same vocal individuals get the lion’s share of attention and resources. Conversely, it also ensures balanced decision-making, thus mitigating the organization’s tendency to go to the same set of people to get things done.

• **Consistent and open processes:** Data governance often invites a new level of transparency to cultures that are unaccustomed to exposing their decision-making processes. This newfound openness stimulates dialog and participation, while establishing firm rules for who is actually authorized to weigh in.

• **Value realization:** Formal data governance mandates consistent, standardized communication. Regular measurement and reporting of the benefits of data governance encourages ongoing support of the governance activity, while simultaneously cementing the perception of data governance as a worthwhile enterprise endeavor.

An automotive company we work with actually used data governance as the proving ground for a broader IT governance initiative in order to manage its technology assets. Ultimately the value realization of any governance effort circles back to the initial problems that drove it in the first place. The ability to solve those and other problems, and to deploy higher quality information to the business at large, will more than compensate for the cost of data governance.

**The New Best Practices in Data Governance**

*Opportunity is missed by most people because it is dressed in overalls and looks like work.*

— **Thomas Edison**

Now that we’ve examined what works in establishing formal data governance, let’s look at a few of the emerging best practices that early-adopter companies have embraced to their benefit.

1. **Begin with a Key Initiative.**

Everyone agrees that getting buy-in from executives to support data governance is critical. Indeed, data is as broad as the number of executives. But securing C-suite sponsorship is not the first step. Indeed, overemphasis on the organizational aspects of data governance can doom it from the start.

In fact the key to enlisting optimal sponsorship and support and launching data governance the right way is to identify an enterprise-level initiative whose data touches multiple organizations, and promises payback to at least one. For instance, a pharmaceutical company’s MDM initiative promised to alleviate fines for state
compliance reporting. After designing the initial data governance plan, the data governance core team decided to recruit the company’s Director of Compliance as the data governance sponsor. As state reporting issues were resolved with MDM, the Director of Compliance unveiled the program’s success to other decision makers in their respective areas. The success of the initiative was related to the effectiveness of data governance, encouraging participation among additional stakeholders and helping to enlist other potential sponsors.

2. Make the Data Steward the Change Agent.

From a tactical perspective, no one is more qualified to enforce the ongoing rigor of data governance than the data steward, who often lives or dies based on competent decisions about data. Because he can articulate the financial, efficiency, and revenue benefits of good data governance, describing tangible benefits of increased data re-use, higher quality data, and fewer definitional battles, the data steward can help paint a picture of the desired state, and pitch executives who may be on the fence about participating in or funding a governance effort.

3. Data Governance and Data Management are Bi-directional.

Data governance should feed data management; and data management should in turn communicate the impacts back into the data governance process. This “closed loop” system means that day-to-day data management tactics must support enforcement of data governance rules, measure the business impacts of common definitions and improved data quality and match rates, and refine the data based on additional decision outcomes from the governance process. In order to be perceived as valuable, data governance must show positive outcomes and hard payback. The best way to ensure its success is thorough a proven ability to manage data in a structured and tactical way.

4. Change the Influencers, But Not the Leaders.

The data governance council should have an influential leader or “chair.” This person is usually on the business side, and can manage both upwards—communicating to executives about data governance success and needs—as well as downwards—ensuring that the data management team has the appropriate direction in order to execute.

The chair is not the executive sponsor. As business programs in need of corporate information mature and evolve, and as new ones are introduced, executive sponsorship for data governance will likewise change and evolve. Executive sponsors are best leveraged to communicate the vision and objectives for their respective organizations. Over time there will likely be more than one executive sponsor at the council table, and that’s the way it should be.
5. Manage the Data Lifecycle—and Show the Pictures.

The concept of the data supply chain is quickly gaining traction with business managers who realize that data travels throughout the enterprise and needs to be rigorously tracked and managed. For this reason the data governance framework should include mechanisms to monitor the data lineage and lifecycle across business processes. While normally used by data stewards and administrators, data workflow technologies can paint a picture for practitioners and senior executives alike of the flow and transition states of data across a business process.

6. Engage Vendors—but Know the Right Vendors to Engage.

Data governance isn’t a tool. But it does require mechanisms for measurement, management, and communication. While a range of software vendors have incorporated data governance terminology into their sales pitches, few offer proven platforms that can enable data governance policies. Here are some questions to ask qualified vendors as you evolve your data governance capabilities:

- Do you offer a single or multiple solutions for managing master data domains such as customer, product, asset, and others? The advantage of a single platform is that it helps to streamline the implementation of often-varied data governance policies driven by a high-profile business initiative. A single platform is also the preferred approach for companies with less mature data management capabilities.

- Do you provide services supported by a SOA (Service Oriented Architecture) framework to enable data governance processes? Data services help enforce specific rules and provide exception handling when governance-ordained policies are breached.

- Does the MDM platform capture extensive information during the execution of data-intensive processes? Mature vendors offer platforms that enable the capture of metadata during data creation, data reconciliation, data correction, and propagation. Such active data monitoring serves as de-facto data lineage tracking, making it much easier for data stewards to audit the data lifecycle.

- Does your platform come with pre-packaged KPIs (Key Performance Indicators)? KPIs are often defined during the data governance process as a way of measuring success or return on investment, providing the checks and balances necessary for effective measurement.

- Do you offer support of our existing workflows to facilitate collaboration and data sharing? The ability to see and tune business processes and the data that enables them not only helps data stewards be more productive, it lets them spot discrepancies and communicate their questions to business users more effectively.
• Can the same MDM platform support either centralized or distributed data governance? As we discussed earlier, small or mid-sized companies might choose a centralized approach to governance, whereas larger or global companies might deploy regimes for managing specific business processes or organizational needs.

Data governance is a multi-disciplinary system that converges business goals, processes, people, information, and eventually technology. Technology is indeed important in supporting data governance and streamlining data management. But technology and platform debates shouldn’t sideline core teams from doing the hard work of rigorous design before they consider automation.

**Conclusion**

Even with deliberately designed structures and solid accountability in place, data governance isn’t easy. Gartner recently predicted that by 2008, fewer than 10 percent of companies will have succeeded with their initial data governance efforts.

Taking the time to socialize data governance to a wary organization in need of education and build sustainable processes is crucial for data governance success. But the bigger challenge is bringing data stakeholders together in a regular way to drive results and monitor progress. These people must stay mindful of their departmental objectives, but ultimately keep the company’s larger interest at the forefront of their governance activities. The centerpiece of data governance is getting the larger council to understand, focus on, and commit to data governance according to an ideal state picture of the enterprise—one that relies on information to not only survive, but to excel.

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1 As reported in an *Information Week* survey, January 2006.


3 Weill and Ross write, “Top performing firms, in our study, did not follow the most common governance patterns. Instead, leading performers on a particular financial metric had specific governance patterns that encouraged their unique combination of desirable behaviors.”
About Jill Dyché


About Baseline Consulting

Baseline Consulting, an acknowledged leader in the data integration and business analytics industry, helps large and mid-sized businesses enhance the value of enterprise data, improve business results, and achieve self-sufficiency in managing and using data as a corporate asset. Baseline offers business consulting and technical implementation services in four practice areas: Business Analytics, Data Warehousing, Data Management and Data Integration. Founded in 1991 and headquartered in Los Angeles, California, Baseline’s only business is mastering data. For more information, please visit our website at www.baseline-consulting.com or e-mail us at info@baseline-consulting.com.
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Siperian, Inc. provides the most flexible master data management platform to help companies unify their critical data about customers, products and organizations. Siperian MDM Hub™ delivers the most reliable, complete views of this data by managing all types of master data with an integrated, model-driven software platform—that adapts to your business requirements and delivers rapid return on investment on critical projects today while evolving to a complete enterprise master data management platform. Siperian’s approach enables rapid implementation and has earned the company its reputation for leadership and proven success. To learn more about Siperian visit [www.siperian.com](http://www.siperian.com) or call 1-866-747-3742.