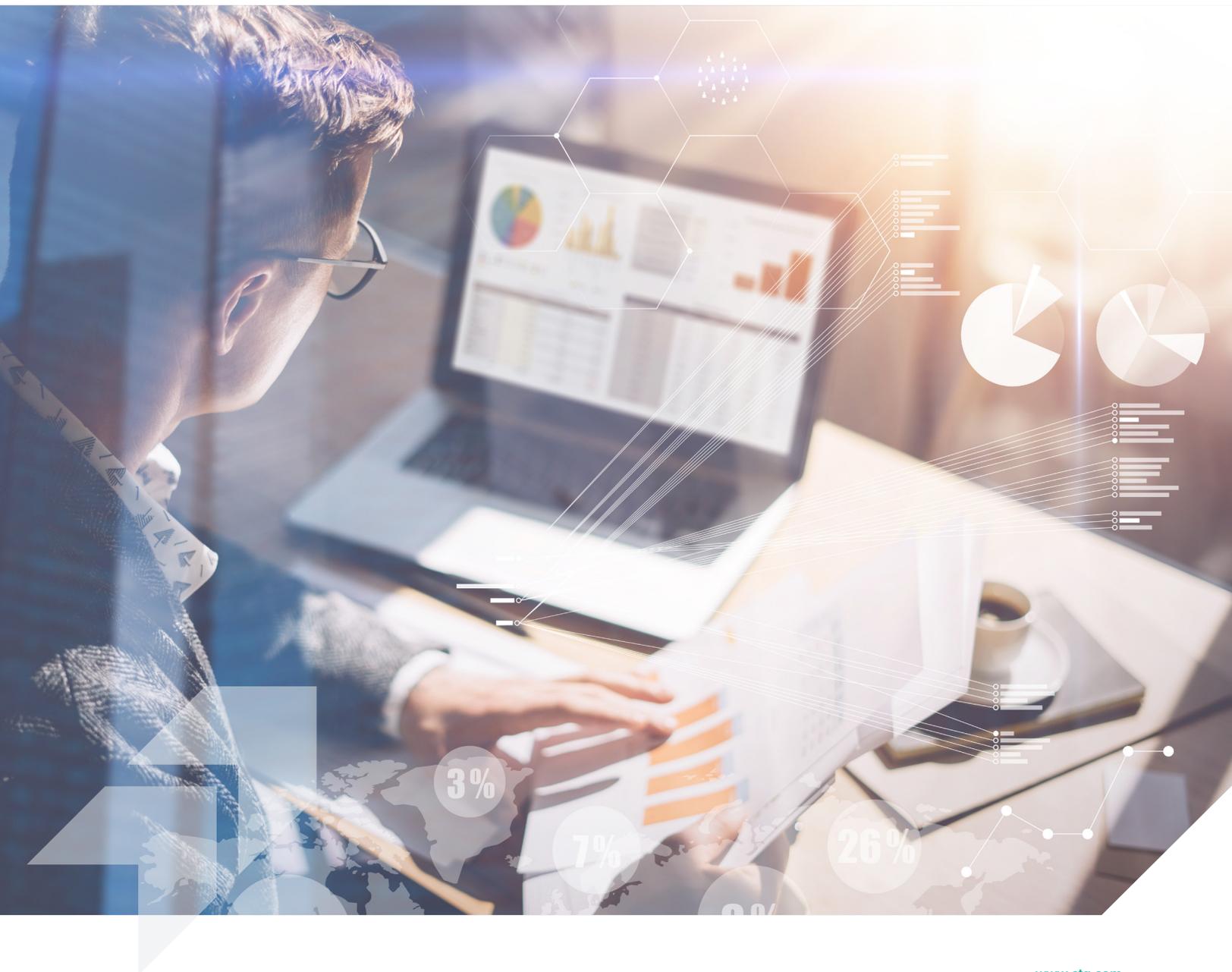


DATA GOVERNANCE MANIFESTO

Drawing a Clear Line for Ensuring Data Quality and
Information Consistency

by John Walton, Solution Architect, CTG





Data is like digital crude oil. Every organization has a vast reservoir of raw data that has little to no value until it's refined into a useful information product. However, many organizations continue to struggle with data management, data quality assurance, and information consistency.

25%

of companies

feel like they are exactly where they want to be with their corporate data management, **down from 31% in 2015**.¹

Just 3%

of enterprise data

meets quality standards²; **60-73% is never used strategically**.³

Only 20%

of organizations

investing in data governance will succeed through 2022.⁴

Despite these ubiquitous struggles, data governance begins with making sure the appropriate stakeholders in your organization have access to the trusted data they need for decision making. This white paper establishes the goals and objectives of a sound data governance strategy and provides the three essential steps that organizations should take to ensure data quality so they can transform “raw data materials” into consistently defined and approved information assets. Taking these steps will improve customer and stakeholder satisfaction, enable better decision making, increase productivity, and lower costs.

What Are the Goals of an Effective Data Governance Strategy?

Well-run organizations are able to measure progress against strategic objectives and make data-driven decisions. Progress measurement requires clearly defined KPIs, and sound business decisions are based on reliable facts based on high-quality, trusted data that has been gathered from myriad sources and transformed into consistently defined information.

¹ <https://connect.comptia.org/content/research/data-management-trends-survey>

² <https://hbr.org/2017/09/only-3-of-companies-data-meets-basic-quality-standards>

³ <https://www.forrester.com/blogs/hadoop-is-datas-darling-for-a-reason/>

⁴ <https://www.gartner.com/en/conferences/emea/symposium-uae/featured-topics/bi-da>

Data is a raw material. Information is a product that is derived from that raw material, which is only useful if it is of high quality. Thus, the overarching goals of a solid data governance strategy are to ensure data quality and establish information consistency.

Many years ago, I was meeting with the senior leadership team of a regional health plan in Western New York. They were struggling to understand the importance of a data governance strategy, so I asked their CEO, “How many members does your company insure?” He provided an answer, and I then received a different number from each C-suite member. The numbers provided weren’t incorrect; they were simply computed differently based on different business rules. This illustrates how an organization’s most important KPI can often be inconsistent, thereby hindering their ability to measure and report success.

What Are the Root Causes of Data Quality and Information Consistency Issues?

There are four primary types of data quality and information consistency problems:

1. **Incomplete Data**—The data required for reporting and analytics isn’t being captured.
2. **Invalid Data**—Edits in the source applications don’t reflect data quality assurance business rules.
3. **Free-form Text**—Unstructured textual fields must be parsed to extract valuable information.
4. **Inadequate Definitions of Roles and Business Processes**—Your organization doesn’t have the methods or accountability to identify and remediate data quality issues, or ensure that the definitions and formulas for KPIs and other measures are consistent throughout the organization.

Solving the first three problems may seem straightforward. However, the reality is there are many complexities involved. In a perfect world, application vendors will implement required fields, enforce stringent edits, and limit the number of textual fields. Too many required fields and edits, however, can create a painful and burdensome data entry process that may actually further undermine data quality.

Let’s explore a real-life example within a healthcare setting. Clinicians should be focused on patient interaction before they capture all the data required for reporting and analytics at the point of care. They usually prefer to document most of the patient encounter in free-form clinical notes or to enter the required data later. A rigid data entry structure would hinder the patient encounter by burdening clinicians with data entry, consequently making the entire encounter more inefficient. But, if the clinician is unable to assume additional responsibilities for data quality and application vendors are also unable to maintain it, what can the organization do?

Three Steps to Tackle Your Data Quality and Information Consistency Problems

Step 1: Establish Clear Data Governance Objectives

Effective data governance programs begin by defining three key objectives to support data quality and establish information consistency, which motivate action and change. I recommended that organizations:

1. **Proactively Identify Issues:** Determine how your organization is going to profile data in source applications (the preferable approach) or before it’s loaded into the data warehouse. Data profiling is a methodology and associated tools for examining a data source such as a file or database to identify missing, inaccurate, or incomplete data. This allows you to identify issues before they become painful and costly.

Questions to Ask: What tool will your organization use to do this? Who will do it? What business processes are required to do it?

2. **Remediate Issues That Arise:** Many organizations don’t have effective business processes in place to remediate data quality issues once they’ve been identified. To be effective, the path of action and related responsibilities need to be clear.

Questions to Ask: If an executive finds a glaring error on a dashboard, how is this issue reported and tracked? Who is responsible for resolving the issue, and who approves the solution? What business processes are required to do this?

3. Enforce Standards: Information consistency issues are caused by a lack of approved data definitions and business rules for KPIs and other business measures.

Questions to Ask: Who creates the definition of a KPI as well as the business rules for computing it? Who approves these definitions and business rules? How do we obtain consensus if many people need to be involved in the approval process? What business processes are required to make all of this happen?

Step 2: Establish Data Governance Roles, Responsibilities, and Business Processes

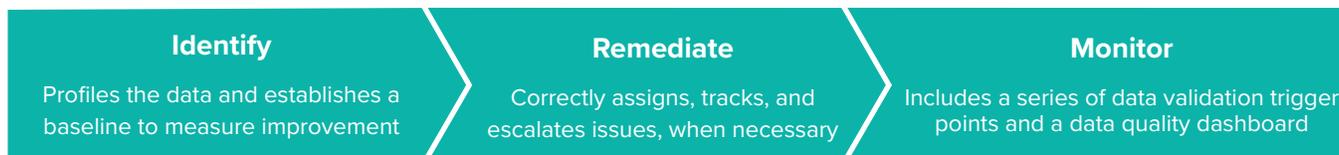
Your organization must clearly define the roles, responsibilities, and most importantly, the business processes you plan to use to ensure data quality and information consistency. Here are the roles, responsibilities, and high-level business processes I recommend you establish upfront:

Roles and Responsibilities

 Data Owner	 Business Steward	 Technical Data Steward	 Gatekeeper
<ul style="list-style-type: none"> Responsible for overall data quality and consistency Coordinates the efforts of Business and Technical Data Stewards Approves data definitions and business rules 	<ul style="list-style-type: none"> Performs data profiling to proactively identify data quality issues Improves business processes Prepares data definitions and business rules Determines data quality solutions 	<ul style="list-style-type: none"> Supports the data profiling efforts of Business Data Stewards Coordinates the implementation of data quality solutions Performs impact analysis 	<ul style="list-style-type: none"> Logs data quality issues and assigns them to the responsible Business Data Steward Monitors resolution status and generates weekly reports Escalates issues to the Data Owner, when necessary

Business Processes to Support Data Quality

A best-practice data quality methodology consists of three high-level processes, which together help to proactively identify and reactively resolve issues, and provide ongoing monitoring and analytics:



Business Processes to Support Information Consistency

A best-practice information consistency methodology consists of three high-level processes, which together help enforce standard definitions and computational formulas, bringing clarity to your KPIs and business success metrics:



Step 3: Incorporate Data Governance Roles and Responsibilities Into Position Descriptions

Behaviors matter when ensuring data quality. That's why the final, and arguably most difficult, step in establishing your data governance program is to update the job descriptions of the individuals who will be responsible for performing your organization's data ownership and data stewardship. This step requires collaborating with your Human Resources department to add the data governance responsibilities and expectations to the appropriate position descriptions.

I cannot stress how important this step is to the success of your data governance initiative.

Operationalizing data quality and information consistency ensures that each person clearly understands his or her data governance role and is evaluated accordingly.

Alternatively, you can engage a trusted partner to provide many of the people, processes, and technologies discussed above on a managed services basis. At CTG, we have launched [a unique DataOps Solution](#) that includes data governance-as-a-service, which frees up your resources to focus on other strategic imperatives.

Summary

Your organization should consider—and treat—the data needed for enterprise reporting and analytics as one of your most valuable resources for enabling digital transformation. As a raw material, data must be cleansed and transformed into consistently defined information assets. This transformation requires clearly defined goals, roles, and responsibilities that should be documented in job descriptions and business processes. If you're still struggling with poor data and inconsistent information, it's time to take the three concrete steps provided in this manifesto and begin to realize the tangible benefits of a successful data governance strategy.

To learn more about how CTG can help solve your data governance problems, contact our DataOps solution specialists at solutions@ctg.com or visit us online at www.ctg.com



About CTG CTG (NASDAQ: CTG) is a leading provider of digital transformation solutions and services that accelerate clients' project momentum and achievement of their desired IT and business outcomes. We have earned a reputation as a reliable, results-driven partner focused on improved data-driven decision making, meaningful business performance improvements, new and enhanced customer experiences, and continuous innovation. CTG has operations in North America, South America, Western Europe, and India. The Company regularly posts news and other important information online at www.ctg.com.



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