THE FUTURE OF

DATA GOVERNANCE

Is Now

by Kelle O'Neal

First San Francisco Partners

Foreword

Kelle O'Neal

I've been a data governance trainer, practitioner and enthusiast for well over a decade. Yet I can't recall a period of time that is as exciting, as momentous, and as dynamic as the here and now. *Today*. Living in a data-never-sleeps reality where we produce 2.5 quintillion bytes of data daily. Where data-driven is not just a vague corporate sentiment but truly a cultural shift — and anchor — for many organizations. Where nearly 90 percent of businesses have adopted or have plans to adopt a digital-first strategy.

Data has become the lifeblood of our digital economy. And in order to extract its full value, data must be managed and governed.

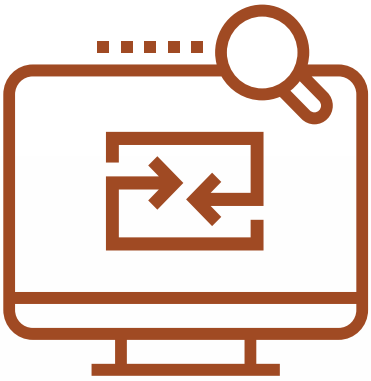
And ... *data governance is different now.*

Evolution of Data Governance

Data governance is by no means a new practice — but a constantly evolving one. When I first started in the industry, it wasn't really called "governance," but people were doing it anyway. They were coming together to make decisions around data, such as how to define a customer, how to determine the best representation of a customer and how to ensure the record is of high quality, among countless others. Many times these activities were done in response to another project, such as an ERP implementation, the creation of a data warehouse, or the implementation of an MDM solution. Even though the governance was project-specific, it was still governance. And as demand grew, companies realized the value of being more organized around governance.

As new trends, technologies and business drivers, like self-service analytics and data privacy emerge, data governance will continue to shift to meet the demands of data-driven businesses.

Over time, governance was given extra fuel with regulatory requirements such as Basel I, II and III and Dodd-Frank, which sharpened organizational focus on regulatory reporting. As new trends, technologies and business drivers, like self-service analytics and data privacy emerge, data governance will continue to shift to meet the demands of data-driven businesses.



Digital Transformation Journeys Are Underway

Whether the goal is to enable an improved customer experience, increased speed of innovation or improved efficiency in the supply chain, it's clear most businesses have embarked on a journey toward digital transformation. This is happening on a daunting scale across all industries, with different levels of maturity.

Companies are scrambling to figure out what digital transformation means to them. The purpose and pace will differ from company to company.

And this is time-critical. It's the feeling that if everyone is doing it, then the first one across the finish line wins. Companies are scrambling to figure out what digital transformation means to them. The purpose and pace will be different to different companies, but there is an aspect that will mean the same thing to all of them — the amount of data created with digitization will skyrocket.

Because data governance ensures the right people are involved in determining standards, usage and integration of data across projects, subject areas and lines of business, sound data governance will underpin all digital transformation initiatives.

Related reading on FSFP's blog

Recruit a Winning Data Governance Team > click to read

Modern Data Governance: Where to Focus

Where should you align your data governance efforts for maximum results? Consider these organizational focus areas to unlock significant value:

1. Data Understanding
2. Data Privacy and Ethics
3. Expansion of Data Governance
4. Data Governance in the Cloud
5. Diversity in Data Teams

I'll share some key concerns and considerations for each focus area. I encourage you to evaluate and implement the ones that will drive the most impact for your business.

1. Data Understanding

Data understanding is the ability to know where the data comes from and what it means.

Data is everywhere in the enterprise and is being acquired externally at a rapid pace, often at significant cost. The provenance or lineage of that data is critical to ensuring its content, context and appropriate use. If you don't know where it comes from, how can you trust it? How can you assure its level of quality?

Metadata is foundational to all data work and should be the top priority of a data governance program.

Importance of Metadata

Metadata is foundational to all data work and should be the top priority of a data governance (DG) program. Without an understanding of what data means, where it comes from or how it's classified, it's virtually impossible to progress anything else. You cannot define quality levels, access rights or usage guidelines. If you're going to understand both the data and the value you can derive from that data, you need to have metadata.

But metadata for metadata's sake is not a sustainable program. Determine what metadata you need to support key business objectives and direction, digital transformation, to comply with the General Data Protection Regulation (GDPR), California Consumer Privacy Act (CCPA) or other regulations, to control data breaches, etc.

Related reading on FSFP's blog

Why Data Glossaries, Dictionaries and Catalogs Need to Evolve > click to read

If your digital transformation effort is focusing on maximizing customer experience, then focus the process to gather, manage and improve metadata on those data elements that are needed to action the customer experience program — customer master data, contact data, sentiment data or purchasing patterns.

Prioritize Data Lineage Efforts

Focus on the amount of data lineage that is important and create criteria to say when "enough is enough."

The same approach goes for data lineage. It will be a very expensive and lengthy exercise to identify and record the lineage associated with all of your data. Focus on the amount of lineage that is important and create criteria to say when "enough is enough." This goes for the granularity of the data lineage, as well. You can start with the big-picture data flows, then dive down into which attributes of the data elements come from which systems — then how they get combined and transformed. And for data that is used for regulatory reporting, it will be necessary to have significant granularity and accuracy. For others, perhaps not so much.

Demystify Metadata

If time and money are invested in metadata, it's critical that people can access it and use it to ensure they understand what the data means, where it comes from, its accuracy and its timeliness. This means being able to easily see the metadata for data at the application layer (e.g., a hover-over capability). Or an intuitive and easy-to-access data catalog could help report builders and analysts know what data is available, how others are using it and how frequently.

Be sure to preserve instances of collaboration and the associated artifacts to drive productivity and efficiency. Focus on tool capabilities that not only produce, but also propagate work.

Crowdsourcing is Key

Lastly, building out a corpus of metadata can be a long and arduous process. If it is up to a select few individuals, it will take a while. Leverage crowdsourcing and then when people contribute, provide them the recognition and appreciation for their effort to encourage them to continue to do so — and influence others to contribute, as well.

2. Data Privacy and Ethics

Privacy is the concept that certain data is so sensitive to a person that it shouldn't be shared, whether that is because of risk associated with that data, or because it's personal.

Privacy has a legal basis and legislation to protect it in most countries in the world. By contrast, ethics is a voluntary code that outlines personal responsibility. Ethics comes into play in both the management of the data, as well as the usage or how that data is involved in decision-making.

As governance and management professionals, we need to recognize that we are at the center of how data is created, collected, shared and used.

GDPR, CCPA, et al

Privacy regulations — GDPR, ePrivacy and the California Consumer Privacy Act (CCPA), to name a few — are becoming more voluminous and more stringent. With a focus on the individual and the consumer (the most granular level of customer information), these regulatory requirements can be quite challenging.

In our digital world, we are creating, using and sharing data constantly. Simple guidelines and standards cannot cover all circumstances. As governance and management professionals, we need to recognize that we are at the center of how data is created, collected, shared and used, and that the decisions resulting from this can be ethical or unethical.

Keep in mind that what people consider to be private or ethically acceptable depends on culture and age and can change with time.

Related reading on FSFP's blog

CCPA is Effective Next January 1: Are You Prepared? > click to read

Create a culture of data privacy by educating people on how to integrate privacy practices into all data management activities, data sharing and data usage.

The Cost of Reputational Damage

The average global cost of a data breach in 2017 was $3.862M.* In early 2019, it was reported that Google was fined $57 million (US) for noncompliance with GDPR. And in mid-2019, the Federal Trade Commission announced it will require Facebook to pay a $5 billion fine for its connection to the Cambridge Analytica data breach.

Adding the cost of GDPR non-compliance to any reputational damage created by either a privacy or an ethical breach could be fatal. This is why governance must be involved in every project that uses data to ensure compliance with privacy standards.

Data Ethics Framework and Culture

Consider creating a data-ethics framework as a way to enable an ethical culture. The framework should include the principles and guidance around what is considered ethical (and what isn't) and a data-ethics policy. This sort of "compelled" data ethics approach, by leveraging policy, can help it feel less voluntary, and can bridge the gap between optional and regulatory as you get started. Eventually, the goal is to recognize the purpose and value of data ethics and jump-start a more ethics-aware community.

Ultimately, the goal is to not just have a policy, but have a data-ethics culture that uses that framework to make ethical decisions with data. To make that a reality, it's important to leverage all your organizational change management capabilities to drive awareness and adoption of a data ethics mindset.

Related reading on FSFP's blog

[It's Time to Focus on Ethics in Data Governance > click to read]

*Security Today - "The Average Cost of a Data Breach"

3. Expansion of Data Governance

Governance needs to demonstrate value beyond regulatory requirements to show direct business value from data.

The potential for governance extends beyond merely data. For example, understanding, transparency, auditability, quality and trust are also required for reporting, analytics and models.

Don't reinvent the wheel. Build upon the existing governance foundation. Be focused and have an incremental growth strategy. You will never be able to capture 100 percent of metadata, nor 100 percent of lineage. Focus on what provides business value and how you can start with a kernel of value and then incrementally expand.

For governance to unlock full value enterprise-wide, it needs to be for data what Human Resources is for people.

Rethink "Program"

Remember when we all rallied around the DG ethos of "think program, not project"? Now it's time to "think operationalization and embedment, not program." For governance to unlock full value enterprise-wide, it needs to be for data what Human Resources is for people.

Demand for technology to support DG is also becoming greater as the adoption of governance extends across the enterprise. More work needs to be done more rapidly by fewer people — and with more transparency and auditability than ever before.

Related reading on FSFP's blog

9 Ways Data Governance Tools Can Improve the Sustainability of Your Program > click to read

Focus on Empowerment, Not Control

Change the perspective of DG to provide support as close to the point of data usage as possible, with the goal of empowering data citizens to govern themselves.

Of course, with freedom comes great responsibility. This is where creating a culture of data privacy, a culture of data ethics — and, in fact, a culture of DG — is critical. At a certain point, a governance team can only do so much. If they can focus on empowerment, not control, they will be able to support more people with higher volumes of demand and data.

And it's not just the volume. The range of capabilities needed to be involved creates demand for technology support. The pace has changed, so take advantage of machine learning and AI to complement the people involvement and get the work done in the time needed to do so.

Don't forget to measure the value data governance delivers. A 2018 McKinsey study showed that in digital transformation efforts, the most successful ones focused on assessing and measuring the impact of the change created.

Measure Governance's Value

Lastly, don't forget to measure value delivered. A 2018 McKinsey study showed that in digital transformation efforts, the most successful ones focused on assessing and measuring the impact of the change created. Among respondents who reported their organizations monitored KPIs as part of implementation, 51 percent reported success, compared with only 13 percent among those who did not monitor KPIs.

Related reading on FSFP's blog

Do Your Executives Understand the Value of Data Governance?
> click to read

4. Data Governance in the Cloud

In a cloud-first environment, there is a feeling of less control over the data — and, in fact, the movement of data to the cloud creates demand for even more governance.

Do you know what organizational data is in the cloud, who put it there (and whether it should be there) and how it's being protected?

Data integration between multiple cloud-based applications can be complex. The new cloud-based toolsets require integration of governance practices. While there may be a clear value proposition for both storing data in the cloud because of volumes and using cloud-based applications — when it comes to metadata, it may be more difficult because you have to understand both metadata of on-premise solutions and that of cloud solutions.

Do you know what organizational data is in the cloud, who put it there (and whether it should be there) and how it's being protected?

Understand Cloud Vendors' Governance

This should go without saying, but make sure you verified the cloud vendor's governance approach. In some cases, the security and privacy standards are higher than you can accomplish in-house. Taking a data-centric approach to the development strategy means understanding your data and information requirements, along with functional and technical requirements.

Related reading on FSFP's blog

Are You Ready for Data-Centric Development? > click to read

When implementing cloud solutions, it's important to understand the data needs of and for those solutions, so you can incorporate those requirements into the cloud implementation and determine the gap between what is provided in the solution, and what you need to do to complement it.

Cloud is becoming the new normal because it provides a low-cost alternative — and many companies opt for a cloud-first strategy. If this is your approach, take advantage of the opportunity this creates to potentially re-engineer from a data-centric perspective and improve data understanding and governance.

5. Diversity in Data Teams

For data management, inclusion means crowd-sourcing and diversity, which facilitates innovation and, therefore, drives competitiveness. One of the byproducts of inclusion is cognitive diversity or differences in perspective and information-processing styles. Essentially, it's the difference in the way people think and solve problems.

Diversity increases creativity, the opportunity to understand a wide variety of perspectives and the ability to consider a variety of viewpoints when trying to make a change or initiate a new program. This broad lens is critical to successful data initiatives, because data is everywhere and has a varied impact on people across an organization.

Teams with gender diversity are more likely to experiment, be creative and share knowledge.

True workplace diversity is critical in all areas—including ethnic, cultural, gender, socio-economic, age etc. I'm going to focus on gender diversity, in particular, because it's something I am deeply passionate about.

Building a data future with women

Consider these compelling statistics, as you think about the importance of diversity:

- Companies in the top quartile for gender diversity are **21 percent** more likely to experience above- average profitability.
- In 2016, **26 percent** of data professionals were women.
- In 2017, **19 percent** of CDOs were female —compared to **25 percent** in organizations with worldwide revenue of more than $1 billion.
- By 2020, there will be **2.7M** job openings for data and analytics in the U.S.

Women at the Forefront of Data

In my home area, the tech industry (specifically, venture capital) is king. Did you know that of the top 100 VC firms, only eight percent of investing partners are women?

Building a data future with women is important for two reasons:

- In this fast-paced, data-first world of change, we need to do everything we can to be competitive and ensure success.
- There is a huge shortage of skilled workers. According to the World Economic Forum, 54 percent of the workforce will need re-skilling to transition into the fourth Industrial Revolution, spurred by the fusion of new technologies.

The good news is that in the data management industry, we are making great strides in gender diversity. In fact, Gartner predicts that by 2021, the Chief Data Officer role will be the most gender-diverse of all technology-affiliated, C-level positions. I encourage you to keep the momentum going to drive the success of your programs.

The ROI of Diversity

As the pace of change accelerates, we need to increase the opportunities for innovation and create teams that are more likely to produce creative solutions. Teams with gender diversity are more likely to experiment, be creative and

Related reading on FSFP's blog

Celebrate International Women's Day With Me … and Take Action!
> click to read

share knowledge. Recent studies have also shown that gender diversity is correlated with both profitability and value-creation.

It's not about preferences without expected results. It's a recognition that there is a shortage of skills in the marketplace, and we need to take advantage of all the resources out there. Digital transformation alone will require new skillsets and resources.

And for my women-in-data peers, don't be afraid to reach out and ask to own the governance program — or to apply for a data position that seems beyond your reach.

I'm reminded of one of my favorite quotes by the author and poet Erin Hanson.

> *And you ask, "What if I fall?"*
> *Oh but my darling, What if you fly?*

Modern Data Governance – Today and Tomorrow

I've shared my thoughts on five focus areas that support data governance as we know it today. To keep data governance relevant and "modern" in the future, we will need to, again, adjust and adapt our thinking, the approaches we use and our best practices and tools.

Today is an exciting time to be working in data governance … and the potential for it to be even more dynamic is on the horizon!

About Kelle O'Neal

Kelle is Founder and CEO of First San Francisco Partners (FSFP). A veteran leader and accomplished advisor in the information management sector, as well as a speaker and author, Kelle is passionate about helping organizations apply data and intelligence to gain a true competitive advantage.

For more of Kelle's perspectives, read her articles on the FSFP blog.

About FSFP

FSFP is a leading business advisory and information management consultancy dedicated to helping companies leverage their data to improve strategic decision-making, reduce risk, create operational efficiencies and fuel unprecedented business success.

Our services span data governance, data quality, data architecture, metadata management, master data management, data privacy/legal/compliance, analytics and big data.

Sources:

- Data Never Sleeps 5.0 – domo.com
- 2018 Digital Business Survey Whitepaper – idg.com
- 2017 Cost of Data Breach Study – resilientsystems.com
- Unlocking Success in Digital Transformation – mckinsey.com
- The Future of Jobs Report 2018 – weforum.org
- Gartner Survey Finds Chief Data Officers Are Delivering Business Impact and Enabling Digital Transformation – gartner.com
- How #MeToo Has Forced Venture Capital to Become More Inclusive – inc.com

Sources for page 15:

- IBM's "The Quant Crunch: How the demand for data science skills is disrupting the job market" Report, 2017
- Better Buys' "The Current State of Women in Data Science" infographic, 2016
- Gartner's "Chief Data Officer Survey," 2017
- Mckinsey & Company's "Delivering through Diversity" Report, 2018