

Real-World Data Governance



# Structured and Unstructured Data Governance Excellence

Monthly Webinar Series Hosted by DATAVERSITY

Robert S. Seiner – KIK Consulting

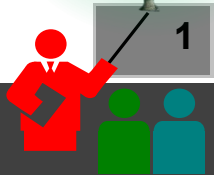
December 19, 2024 – 11:00 a.m. PT / 2:00 p.m. ET



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Episode #155



# Structured and Unstructured Data Governance Excellence

## Introduction

### Real-World Data Governance – Monthly Webinar Series

**January 16, 2025:** Building Resilient Data Governance Strategies in a Post-Pandemic World  
Third Thursday each Month @ 2pm EST – Register at TDAN.com, KIKconsulting.com, DATAVERSITY.net

### Dataversity Enterprise Data Governance Online (EDGO) Conference

**January 22, 2025 – The Value of an Effective AI and Data Governance Joint Framework**

### Non-Invasive Data Governance / Non-Invasive Data Governance Strikes Again Books

**2014:** ISBN 9781935504856 / TechnicsPub.com / Amazon.com

**2023:** ISBN 9781634623599 / TechnicsPub.com / Amazon.com

**2025:** Non-Invasive Data Governance Unleashed: Mastering the Future of AI and Stewardship (Technics)

### Non-Invasive Data Governance / Metadata Governance Online Learning Plans

**Most Recent:** Business Glossaries, Data Dictionaries and Data Catalogs  
DATAVERSITY Training Center – <https://training.dataversity.net>

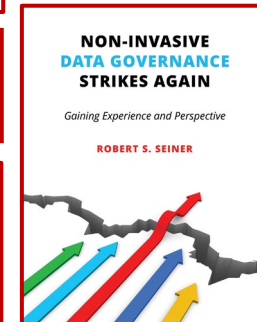
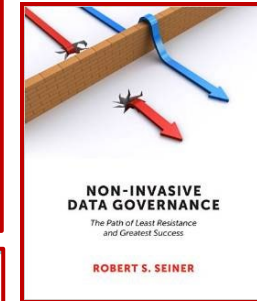
### KIK Consulting & Educational Services

[KIKConsulting.com](https://www.kikconsulting.com)

The Home of Non-Invasive Data Governance™

### Carnegie Mellon University (CMU)

**Adjunct Faculty:** Heinz College Executive Education – **Chief Data and AI Officer (CDAIO)** Certificate Program



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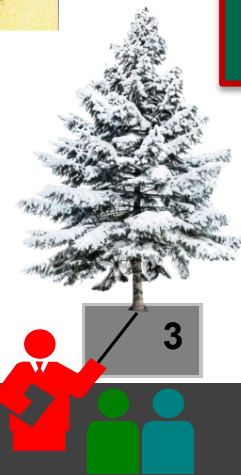
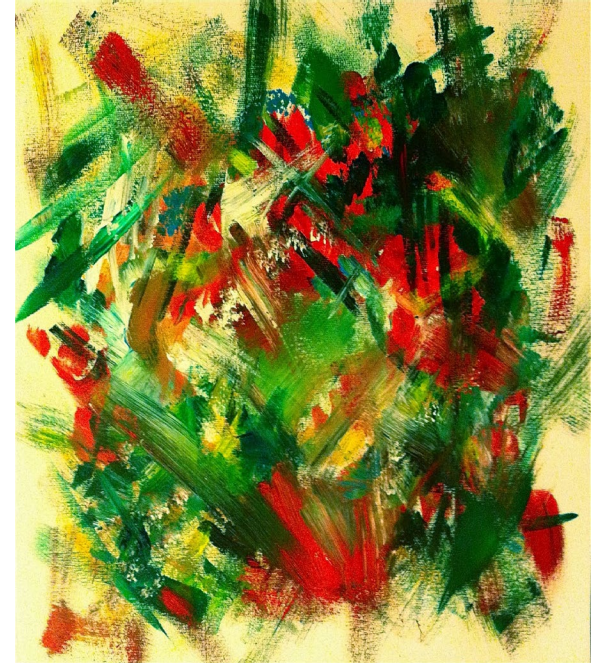
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# Structured and Unstructured Data Governance Excellence

## Abstract

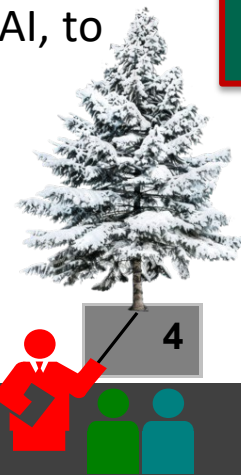
- In this webinar, I will talk about ...
  - Understanding the Diversity of Data Types
  - Crafting a Framework to Address Structured and Unstructured Data
  - Metadata and Taxonomies for Structured and Unstructured Data
  - Leveraging Technology for Data and Information Governance
  - Success Stories Focusing on Structured and Unstructured Data



# Structured and Unstructured Data Governance Excellence

## Definitions

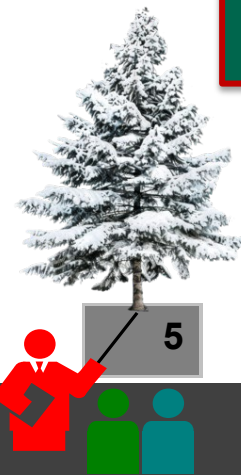
- Data Governance – The **execution and enforcement** of authority over data.
- Data Stewardship – **Formal accountability** for data.
- Data Steward – A **person held formally accountable** for their relationship to the data.
  
- **Structured Data** – Structured data is highly organized and stored in **predefined formats**, often within relational databases. It is easily searchable using straightforward queries due to its consistent schema, which makes it ideal for traditional analytics and reporting.
- **Unstructured Data** – Unstructured data **lacks a predefined format** or structure, making it more complex to analyze and process. It requires advanced tools and techniques, such as natural language processing or AI, to extract meaningful insights due to its free-form nature.



# Structured and Unstructured Data Governance Excellence

## Definitions

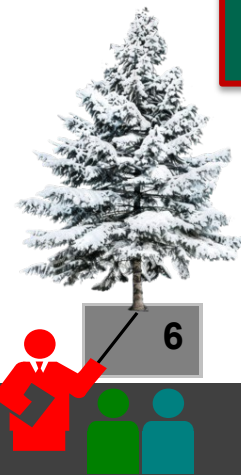
- **Structured Data** includes:
  - Customer data
  - Financial records
  - Product information
  - Employee data
  - Geospatial data
  - Sensor readings
  - Sales data
  - Marketing campaign data
  - Survey responses
  - ERP system records
  - Manufacturing production data
  - Compliance tracking metrics
  - CRM data
  - Database tables from SQL-based systems
  - Metadata
  - Analytical datasets



# Structured and Unstructured Data Governance Excellence

## Definitions

- **Unstructured Data** includes:
  - Text documents (e.g., Word files, PDFs)
  - Emails
  - Images (e.g., PNG, JPEG)
  - Videos (e.g., MP4, AVI)
  - Audio files (e.g., MP3, WAV)
  - Social media posts
  - Website content
  - Chatbot conversations
  - Call center transcripts
  - CAD (Computer-Aided Design) files
  - Sensor data logs
  - Scanned documents
  - Online reviews
  - Log files
  - IoT device output (non-tabular formats)
  - Presentations (e.g., PowerPoint slides)
  - Notes and annotations
  - Articles and blog posts



# Structured and Unstructured Data Governance Excellence

## Definitions

- **Semi-structured Data** includes:
  - Semi-structured data **does not conform** to a rigid, predefined schema like structured data but still **includes organizational elements** (such as tags, keys, or metadata) to make it easier to parse and analyze compared to unstructured data.
  - JSON files
  - XML files
  - HTML documents
  - Email metadata
  - Log files
  - Sensor data
  - NoSQL
  - Social media posts
  - Chat logs
  - Media metadata
  - E-commerce transactions
  - Product catalogs
  - API responses
  - Geospatial data
  - Streaming data
  - Survey results



# Structured and Unstructured Data Governance Excellence

## Understanding the Diversity of Data Types

- Structured vs. Unstructured: Two Sides of the Same Coin.
- The Rise of Semi-Structured Data: Bridging the Gap.
- Governance Challenges in a World of Data Diversity.
- Data Types Evolve, But Governance Principles Endure.
- The Role of Context in Defining Data's True Value.





# Structured and Unstructured Data Governance Excellence

## Understanding the Diversity of Data Types

- Structured vs. Unstructured: Two Sides of the Same Coin.
  - Structured data thrives in rows and columns, while unstructured data breaks free, living in documents, images, and videos.
  - Both structured and unstructured data fuel decision-making, but their governance demands tailored strategies for equal success.
  - Structured data is predictable and easier to analyze, while unstructured data holds the untapped potential of rich context.
  - Together, structured and unstructured data form a complete picture, making governance essential to bridge their unique challenges.



# Structured and Unstructured Data Governance Excellence

## Understanding the Diversity of Data Types

- The Rise of Semi-Structured Data: Bridging the Gap.
  - Semi-structured data blends structure and flexibility, sitting between rigid tables and freeform files.
  - JSON, XML, and NoSQL databases exemplify how semi-structured data adapts to modern analytical needs.
  - Governing semi-structured data requires tools that handle both its defined schemas and unstructured elements.
  - Semi-structured data bridges structured and unstructured worlds, offering a **critical pathway for holistic governance strategies**.

This is the convergence  
I was talking about!



# Structured and Unstructured Data Governance Excellence

## Understanding the Diversity of Data Types

- Governance Challenges in a World of Data Diversity.
  - Diverse data types demand tailored governance strategies that address their unique structures, uses, and risks.
  - Managing access, security, and quality becomes exponentially complex as data variety expands across structured and unstructured domains.
  - Data silos and inconsistent policies hinder seamless governance, particularly in environments with mixed data types.
  - Effective governance thrives on adaptability, unifying policies without compromising the nuances of different data types.



# Structured and Unstructured Data Governance Excellence

## Understanding the Diversity of Data Types

- Data Types Evolve, But Governance Principles Endure.
  - Governance principles provide a timeless foundation, adapting to manage emerging data types like semi-structured and AI-generated data.
  - As data types evolve, core values like accountability, transparency, and consistency remain critical for effective governance.
  - Structured, unstructured, or hybrid, all data benefits from governance frameworks that balance control with accessibility.
  - Evolving data demands innovative governance methods, but enduring principles ensure continuity and trust across the organization.



# Structured and Unstructured Data Governance Excellence

## Understanding the Diversity of Data Types

- The Role of Context in Defining Data's True Value.
  - Data's value is unlocked when its context aligns with the specific needs of decision-makers and business goals.
  - Context transforms raw data into actionable insights, elevating its role from mere storage to strategic asset.
  - Governance ensures data context is preserved, enabling accurate interpretations and minimizing the risk of misinformed decisions.
  - Structured or unstructured, data's relevance is defined by the context in which it is created, shared, and utilized.



# Structured and Unstructured Data Governance Excellence

## Crafting a Framework to Address Structured and Unstructured Data

- Unifying Governance Across Data Silos.
- Balancing Flexibility with Control in Your Framework.
- Embedding Governance into Existing Workflows Seamlessly.
- Tailoring Policies to Fit Data Diversity.
- Future-Proofing Your Framework for Evolving Data Needs.



# Structured and Unstructured Data Governance Excellence

## Crafting a Framework to Address Structured and Unstructured Data

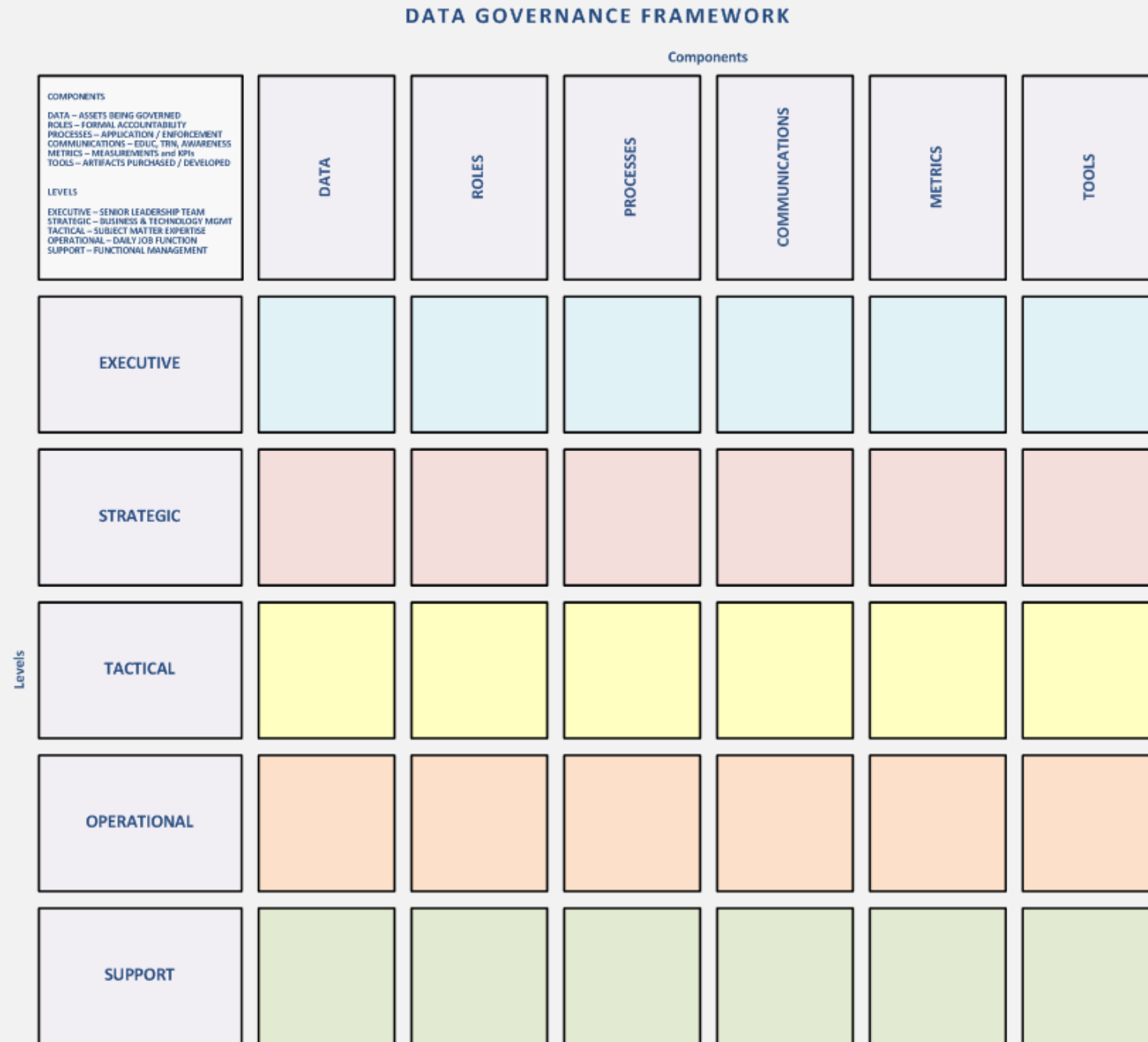
- Unifying Governance Across Data Silos.
  - Unified governance bridges (I will explain) structured and unstructured silos, ensuring consistent policies and practices across all data types.
  - Breaking down data silos enhances collaboration, reduces redundancies, and improves overall data accessibility and quality.
  - A centralized governance framework supports seamless integration while respecting the unique characteristics of diverse data sources.
  - Unified governance empowers organizations to address compliance, security, and value extraction holistically, regardless of data silos.



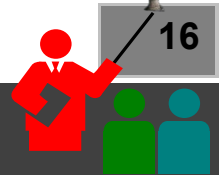
# Structured and Unstructured Data Governance

## Crafting a Framework to Balance Control and Flexibility

- Balancing Flexibility with Control
  - Effective framework for data governance controls
  - Overly rigid framework can find the equilibrium that works
  - Balancing control with flexibility in an evolving data landscape
  - A well-crafted framework is needed within governance



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# Structured and Unstructured Data Governance Excellence

## Crafting a Framework to Address Structured and Unstructured Data

- Embedding Governance into Existing Workflows Seamlessly.
  - Embedding governance into workflows ensures compliance without disrupting day-to-day operations or adding extra steps.
  - Seamless integration leverages existing processes to enhance governance rather than introducing burdensome new layers.
  - By aligning governance with current workflows, organizations can achieve better adoption and reduce resistance from teams.
  - Governance becomes a natural extension of operational practices, improving efficiency and fostering accountability.



# Structured and Unstructured Data Governance Excellence

## Crafting a Framework to Address Structured and Unstructured Data

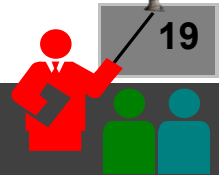
- Tailoring Policies to Fit Data Diversity.
  - Policies must be adaptable to address the unique characteristics of structured, unstructured, and semi-structured data.
  - A one-size-fits-all approach to governance fails when data diversity demands nuanced rules and controls.
  - Tailored policies ensure that governance remains effective across different data types and organizational needs.
  - Customizing governance policies fosters better compliance and aligns governance practices with business objectives.



# Structured and Unstructured Data Governance Excellence

## Crafting a Framework to Address Structured and Unstructured Data

- Future-Proofing Your Framework for Evolving Data Needs.
  - A future-proof framework anticipates emerging data types and governance challenges, ensuring long-term effectiveness.
  - Flexibility and scalability are key to adapting your framework as data needs evolve with technology and business growth.
  - Regularly reviewing and updating governance practices ensures alignment with advancements in AI, analytics, and regulations.
  - Future-proofing minimizes disruption, allowing organizations to stay agile and competitive in a dynamic data landscape.



# Structured and Unstructured Data Governance Excellence

## Metadata and Taxonomies for Structured and Unstructured Data

- The Backbone of Data Governance: Metadata Matters.
- Building Taxonomies That Bridge Structured and Unstructured Worlds.
- Metadata as the Key to Data Discoverability.
- Unlocking Context Through Taxonomy Alignment.
- Harmonizing Definitions to Drive Clarity and Consistency.



# Structured and Unstructured Data Governance Excellence

## Metadata and Taxonomies for Structured and Unstructured Data

- The Backbone of Data Governance: Metadata Matters.
  - Metadata provides the critical context that transforms raw data into actionable insights for structured and unstructured datasets.
  - Effective metadata management ensures consistency, traceability, and accessibility across diverse data ecosystems.
  - Metadata bridges the gap between structured and unstructured data, enabling unified governance and operational efficiency.
  - Without metadata, understanding, categorizing, and leveraging data for business value becomes an overwhelming challenge.



# Structured and Unstructured Data Governance Excellence

## Metadata and Taxonomies for Structured and Unstructured Data

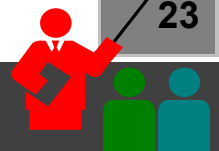
- Building Taxonomies That Bridge Structured and Unstructured Worlds.
  - Taxonomies provide a shared language for organizing structured and unstructured data into meaningful categories.
  - A well-designed taxonomy bridges the gap between diverse data types, enabling seamless integration and governance.
  - Aligning taxonomies with business objectives ensures relevance and usability across departments and workflows.
  - Dynamic, evolving taxonomies adapt to new data sources and types, supporting long-term governance success.



# Structured and Unstructured Data Governance Excellence

## Metadata and Taxonomies for Structured and Unstructured Data

- Metadata as the Key to Data Discoverability.
  - Metadata acts as a GPS for your data, guiding users to the information they need quickly and efficiently.
  - Effective metadata enhances data discoverability, reducing time wasted searching for critical assets.
  - Metadata connects structured and unstructured data, creating a unified and searchable data ecosystem.
  - Governed metadata ensures consistency and accuracy, building trust in the data discovery process.



# Structured and Unstructured Data Governance Excellence

## Metadata and Taxonomies for Structured and Unstructured Data

- Unlocking Context Through Taxonomy Alignment.
  - Aligned taxonomies provide the context needed to interpret data consistently across structured and unstructured formats.
  - Taxonomy alignment bridges departmental silos, enabling unified understanding and decision-making organization-wide.
  - Consistent taxonomies help uncover hidden relationships between data types, unlocking deeper insights.
  - Effective taxonomy alignment ensures data context evolves alongside business needs and priorities.





# Structured and Unstructured Data Governance Excellence

## Metadata and Taxonomies for Structured and Unstructured Data

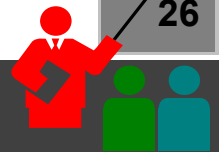
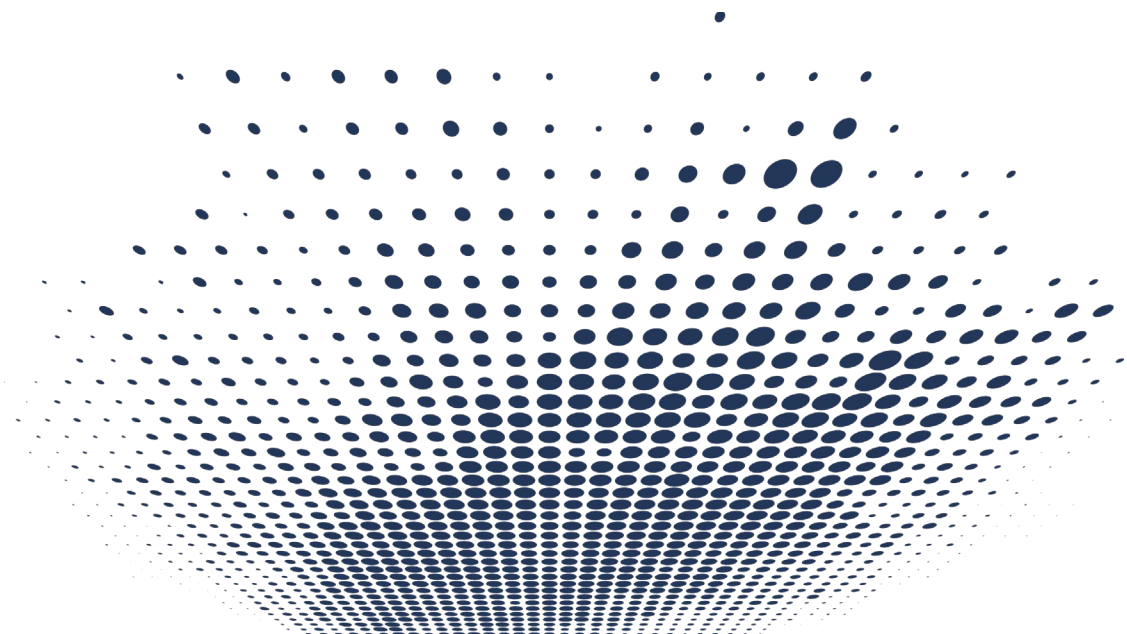
- Harmonizing Definitions to Drive Clarity and Consistency.
  - Unified definitions ensure clarity across structured and unstructured data, minimizing misinterpretations and inconsistencies.
  - Harmonizing metadata definitions builds a common language for collaboration across teams and departments.
  - Clear, consistent definitions enhance data reliability and support better decision-making processes.
  - Aligned definitions pave the way for scalable governance practices that adapt to evolving data landscapes.



# Structured and Unstructured Data Governance Excellence

## Leveraging Technology for Data and Information Governance

- Tech-Enabling Governance Without Overcomplication.
- Automating Compliance in a Data-Driven World.
- Tools That Bridge Structured and Unstructured Realms.
- Leveraging AI for Smarter Data Oversight.
- Scaling Governance with Digital Innovation.



# Structured and Unstructured Data Governance Excellence

## Leveraging Technology for Data and Information Governance

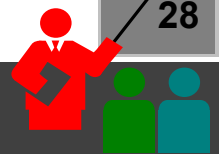
- Tech-Enabling Governance Without Overcomplication.
  - Simplified technology integrations reduce barriers to adopting effective governance practices for structured and unstructured data.
  - Leverage tools that enhance governance without overwhelming users with unnecessary complexity.
  - Focus on technology that complements existing workflows to ensure seamless adoption and minimal disruption.
  - Avoid over-engineering by selecting tech solutions that prioritize usability and practical functionality.



# Structured and Unstructured Data Governance Excellence

## Leveraging Technology for Data and Information Governance

- Automating Compliance in a Data-Driven World.
  - Automation ensures compliance processes keep pace with rapidly growing and diverse data ecosystems.
  - Regulatory adherence is streamlined by embedding automated checks for both structured and unstructured data.
  - Technology minimizes human error by consistently applying governance policies across data types.
  - Proactive compliance monitoring through automation reduces risk and strengthens organizational trustworthiness.



# Structured and Unstructured Data Governance Excellence

## Leveraging Technology for Data and Information Governance

- Tools That Bridge Structured and Unstructured Realms.
  - Modern tools unify structured and unstructured data governance under a single, cohesive platform.
  - Bridging structured and unstructured data enhances insights and drives informed decision-making across departments.
  - Technology ensures consistent application of governance policies, regardless of data format or source.
  - Integrated tools simplify data discovery and classification, breaking down silos between structured and unstructured realms.



# Structured and Unstructured Data Governance Excellence

## Leveraging Technology for Data and Information Governance

- Leveraging AI for Smarter Data Oversight.
  - AI enhances governance by identifying patterns and anomalies in both structured and unstructured data.
  - Smart AI algorithms automate data classification, reducing manual effort and improving accuracy.
  - AI-driven insights enable proactive governance, predicting and mitigating potential data risks.
  - Leveraging AI ensures governance remains adaptable to evolving data complexities and volumes.



# Structured and Unstructured Data Governance Excellence

## Leveraging Technology for Data and Information Governance

- Scaling Governance with Digital Innovation.
  - Digital innovation enables scalable governance, keeping pace with the exponential growth of data.
  - Advanced tools streamline governance workflows, making complex data management tasks more efficient.
  - Scalable technologies ensure governance frameworks adapt to expanding organizational needs.
  - Embracing innovation future-proofs governance strategies against rapidly changing data landscapes.



# Structured and Unstructured Data Governance Excellence

## Success Stories Focusing on Structured and Unstructured Data

- How One Organization Unified Chaos Into a Single Governance Model.
- Turning Unstructured Data into a Strategic Asset.
- Structured Data Wins: Efficiency Gains and Cost Savings.
- From Silos to Synergy: A Real-World Integration Tale.
- Overcoming Resistance: Success Through Collaboration and Clarity.

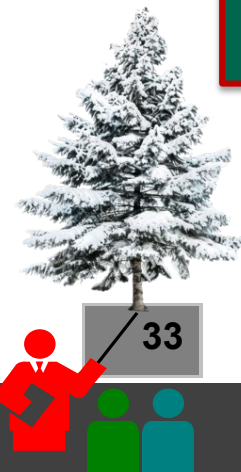




# Structured and Unstructured Data Governance Excellence

## Success Stories Focusing on Structured and Unstructured Data

- How One Organization Unified Chaos Into a Single Governance Model.
  - Faced with silos of structured operational data and unstructured communication logs, the organization struggled with data inconsistencies and inefficiencies.
  - By adopting a unified governance model, they aligned taxonomies, standardized metadata, and streamlined access control across all data types.
  - The model improved data accuracy and discoverability, reducing redundant efforts and enhancing collaboration between teams.
  - As a result, the organization achieved faster decision-making, reduced compliance risks, and increased overall data value.



# Structured and Unstructured Data Governance Excellence

## Success Stories Focusing on Structured and Unstructured Data

- Turning Unstructured Data into a Strategic Asset.
  - The organization faced challenges in harnessing unstructured data, such as customer feedback and maintenance logs, for actionable insights.
  - By implementing governance policies and metadata standards, they transformed disorganized files into searchable, categorized, and accessible assets.
  - Leveraging unstructured data alongside structured data enabled advanced analytics, uncovering patterns that improved customer satisfaction and operational efficiency.
  - This shift turned a liability into a strategic asset, driving innovation and delivering measurable business outcomes.



# Structured and Unstructured Data Governance Excellence

## Success Stories Focusing on Structured and Unstructured Data

- Structured Data Wins: Efficiency Gains and Cost Savings.
  - The organization struggled with siloed structured data, leading to inefficiencies in reporting, inventory management, and decision-making.
  - Through data governance, they standardized data definitions and streamlined integration across ERP and CRM systems.
  - These efforts reduced duplicate records and manual reconciliation, cutting operational costs and improving data accuracy.
  - The result was a measurable boost in efficiency, enabling faster insights and significant cost savings across business units.



# Structured and Unstructured Data Governance Excellence

## Success Stories Focusing on Structured and Unstructured Data

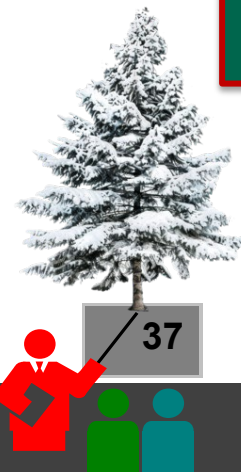
- From Silos to Synergy: A Real-World Integration Tale.
  - The organization faced significant challenges integrating structured operational data and unstructured customer feedback across disparate systems.
  - By implementing a unified governance framework, they aligned taxonomies and established cross-functional collaboration between IT, operations, and marketing.
  - This integration eliminated silos, enabling real-time analytics that connected production metrics with customer sentiment.
  - The result was improved product quality, enhanced customer satisfaction, and a streamlined decision-making process that drove measurable business value.



# Structured and Unstructured Data Governance Excellence

## Success Stories Focusing on Structured and Unstructured Data

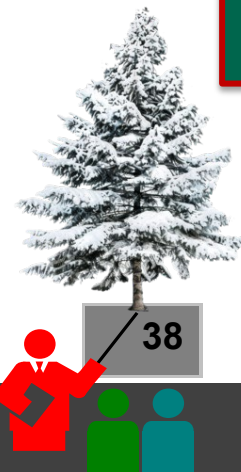
- Overcoming Resistance: Success Through Collaboration and Clarity.
  - The organization initially struggled with resistance from business units hesitant to adopt governance practices for structured and unstructured data.
  - Through clear communication and collaboration, leadership demonstrated the value of governance by aligning it with specific team objectives and outcomes.
  - Governance champions facilitated workshops to address concerns, clarify roles, and showcase practical wins in improving data usability and accessibility.
  - The collaborative approach built trust and resulted in smoother adoption, with teams reporting increased efficiency and confidence in data-driven decisions.



# Structured and Unstructured Data Governance Excellence

## Summary

- In the webinar, I talked about ...
  - Understanding the Diversity of Data Types
  - Crafting a Framework to Address Structured and Unstructured Data
  - Metadata and Taxonomies for Structured and Unstructured Data
  - Leveraging Technology for Data and Information Governance
  - Success Stories Focusing on Structured and Unstructured Data



# Structured and Unstructured Data Governance Excellence

## Q & A - Contact Information

- Robert S. Seiner

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