

Comprehensive List of Data Governance Sub-Processes (2025)

1. Metadata Management

- **Description:** Focuses on the creation, maintenance, and governance of metadata to ensure data is discoverable, understandable, and usable.
- **Key Activities:** Metadata cataloging, lineage tracking, classification, and enrichment.
- **Trends:** Increasing importance of metadata maturity for scalability and integration with architectures like data mesh and data fabric.

2. Data Quality Management

- **Description:** Ensures data accuracy, completeness, consistency, and reliability across the organization.
- **Key Activities:** Data validation, cleansing, reconciliation, and monitoring.
- **Trends:** Convergence of data governance and data quality practices to create seamless user experiences and build trust in data.

3. Data Privacy and Compliance

- **Description:** Ensures adherence to data protection regulations (e.g., GDPR, CCPA) and internal privacy policies.
- **Key Activities:** Data minimization, consent management, access control, and audit trails.
- **Trends:** Growing focus on real-time compliance monitoring and geo-fencing for data sovereignty.

4. AI and Machine Learning Governance

- **Description:** Governs the ethical use of AI and ML models, ensuring transparency, fairness, and accountability.
- **Key Activities:** Model validation, bias detection, explainability, and ethical AI frameworks.
- **Trends:** Integration of AI governance into data governance teams to address ethical risks and biases.

5. Data Access and Security

- **Description:** Manages who has access to data and ensures data is protected from unauthorized access or breaches.
- **Key Activities:** Role-based access control, encryption, and monitoring of data access logs.
- **Trends:** Increased use of AI-driven solutions for dynamic access control and real-time security monitoring.

6. Data Cataloging and Discovery

- **Description:** Enables users to find and understand data assets through a

centralized catalog.

- **Key Activities:** Data asset registration, tagging, and search functionality.
- **Trends:** Automation of data cataloging using AI and integration with self-service analytics platforms.

7. Data Stewardship

- **Description:** Assigns accountability for data assets to ensure proper management and usage.
- **Key Activities:** Defining data ownership, stewardship roles, and responsibilities.
- **Trends:** Shift toward federated stewardship models to support decentralized data architectures.

8. Data Lineage and Traceability

- **Description:** Tracks the origin, movement, and transformation of data across systems.
- **Key Activities:** Mapping data flows, documenting transformations, and ensuring traceability for compliance.
- **Trends:** Increased automation of lineage tracking using AI and ML.

9. Data Literacy and Training

- **Description:** Promotes understanding and effective use of data across the organization.
- **Key Activities:** Training programs, business glossaries, and data literacy initiatives.
- **Trends:** Growing emphasis on fostering a data-driven culture and democratizing data access.

10. Data Retention and Archiving

- **Description:** Defines policies for how long data should be retained and when it should be archived or deleted.
- **Key Activities:** Retention policy development, archiving processes, and data disposal.
- **Trends:** Focus on balancing compliance with storage costs and data utility.

11. Data Ethics and Responsible Use

- **Description:** Ensures data is used ethically and responsibly, avoiding harm or bias.
- **Key Activities:** Ethical guidelines, impact assessments, and monitoring of data usage.
- **Trends:** Integration of ethical considerations into AI and ML governance

frameworks.

12. Real-Time Data Governance

- **Description:** Enables governance policies to be enforced in real-time as data is generated and consumed.
- **Key Activities:** Real-time monitoring, validation, and policy enforcement.
- **Trends:** Adoption of real-time governance for streaming data and IoT applications.

13. Data Governance Framework Development

- **Description:** Establishes the structure, policies, and processes for governing data.
- **Key Activities:** Framework design, policy creation, and stakeholder alignment.
- **Trends:** Shift toward iterative, business-first approaches to framework development.

14. Data Governance Tool Implementation

- **Description:** Deploys tools to support governance processes, such as data catalogs, quality tools, and lineage trackers.
- **Key Activities:** Tool selection, implementation, and integration with existing systems.
- **Trends:** Increasing use of integrated platforms like Collibra, Atlan, and Secoda.

15. Stakeholder Engagement and Communication

- **Description:** Ensures alignment and collaboration across stakeholders to drive governance adoption.
- **Key Activities:** Stakeholder mapping, communication plans, and feedback loops.
- **Trends:** Emphasis on storytelling and demonstrating the business value of governance.

16. Data Governance Maturity Assessment

- **Description:** Evaluates the maturity of governance practices and identifies areas for improvement.
- **Key Activities:** Self-assessment, benchmarking, and roadmap development.
- **Trends:** Use of maturity models and tools like NCSC's data governance self-assessment tool.

17. Data Governance for AI and Analytics

- **Description:** Ensures governance practices support AI and analytics initiatives.
- **Key Activities:** Data preparation, model governance, and analytics

governance.

- **Trends:** Focus on ensuring high-quality inputs for AI models and ethical AI outcomes.

18. **Data Governance in Multi-Cloud Environments**

- **Description:** Manages governance across multiple cloud platforms to ensure consistency and compliance.
- **Key Activities:** Policy enforcement, data localization, and cross-cloud governance.
- **Trends:** Adoption of cloud-native governance tools and geo-fencing solutions.

19. **Data Governance for Corporate Reporting**

- **Description:** Ensures data used in corporate reporting is accurate, consistent, and compliant.
- **Key Activities:** Data validation, reconciliation, and reporting governance.
- **Trends:** Integration of governance with ESG (Environmental, Social, Governance) reporting.

20. **Data Governance for Data Democratization**

- **Description:** Supports the democratization of data by enabling broader access while maintaining control.
- **Key Activities:** Self-service analytics, data access policies, and user training.
- **Trends:** Balancing democratization with strong governance to prevent misuse.

References:

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