Chapter 12

Key Takeaways

Updating the Metadata Repository During Project Close-Out

- Updating the Metadata repository is a recommended activity during project close-out in the Software Development Lifecycle (SDLC).
- Ensuring that metadata is up-to-date helps maintain a record of data changes and supports future projects.

Reference: Metadata updates during project close-out ensure the long-term utility and accuracy of metadata repositories.

Meta-Data for Developers and Administrators

- **Technical Operational Meta-Data** provides developers and administrators with knowledge and information about systems.
- This type of metadata includes information related to system configurations, performance metrics, and technical details

Reference: Technical operational metadata supports system management and helps in optimizing performance.

Examples of Process Meta-Data

- Examples of **Process Meta-Data** include:
  - Data Stores & Data Involved
  - Government/Regulatory Bodies
  - Roles & Responsibilities
  - Process Dependencies and Decomposition

Reference: Process metadata captures the details related to the execution and management of business and technical processes.

Document-Focused Meta-Data Scheme

- **Preservation Meta-Data** is a metadata scheme specifically focused on documents.
  - It involves managing the long-term preservation and integrity of digital documents.

Reference: Preservation metadata ensures that documents are maintained in a usable format over time, including digital archiving.

Metrics Associated with Meta-Data Management

- **Steward Representation/Coverage, Meta-Data Repository Availability,** and **Meta-Data Management Maturity** are metrics associated with metadata management.
- These metrics track the effectiveness and reach of metadata initiatives across an organization.

Reference: Organizations use these metrics to assess the maturity and utility of their metadata management systems.

Business Drivers for Managing Metadata

- Business drivers for managing metadata include:
- **Reduce data-oriented research time**, improve communication between data consumers and IT professionals, and improve time-to-market by reducing system development life-cycle time.

Reference: Metadata management enhances efficiency and collaboration, ultimately reducing the time needed to bring new products to market.

Number of Artifacts to Search in the Metadata Repository

- **There is no mandatory number of artifacts to be searched**, but it is highly recommended that the library is examined during business change projects.
- Examining the metadata repository ensures all necessary components are accounted for.

Reference: Searching through metadata libraries helps avoid gaps or inconsistencies during project transitions.

Goals of Setting, Enforcing, and Auditing Metadata Standards

- By setting, enforcing, and auditing metadata standards, organizations hope to **simplify integration and enable use.**
- Consistent metadata standards ensure seamless data integration across systems and departments.

Reference: Metadata standards help streamline data integration and enable easier understanding of organizational data.

Where to Find Database Table Names, Column Names, and Indexes

- The best place to find database table names, column names, and indexes is the **Database Catalog.**
- The database catalog holds metadata related to the structure and organization of data within the database.

Reference: Database catalogs provide essential technical metadata for managing database schemas.

Difference Between Industry and Consensus Metadata Standards

- **Industry standards** refer to internationally approved global standards like ISO, while **consensus standards** refer to those agreed within an organization.
- Industry standards are established by international bodies, while consensus standards are more localized.

Reference: Industry standards provide global consistency, whereas consensus standards are tailored to the specific needs of an organization

ISO Metadata Registry Standard

- The ISO metadata registry standard that provides a framework for defining a metadata registry is **ISO/IEC 11179.**
- This standard defines how to organize and manage metadata to ensure consistency and reuse.

Reference: ISO/IEC 11179 is a widely accepted standard for managing metadata registries in a structured way.

Data Provenance and Data Lineage

- **Data Provenance** and **Data Lineage** are examples of **Business Metadata.**
- They track the history of data, including its origins, transformations, and movements across systems.

Reference: Business metadata like data provenance and lineage help ensure data transparency and traceability.

Consulting the Metadata Library

- The Metadata Library should be consulted when **assessing the impact of change.**
- Metadata provides insights into how changes to data might affect systems and processes.

Reference: Assessing the impact of changes through metadata helps prevent unintended consequences in systems.

Initiatives Requiring Industry Metadata Standards

- Establishing industry metadata standards was essential for initiatives like **BASEL II/SOX.**
- These initiatives require strict data management and reporting standards to comply with regulatory requirements.

Reference: Industry standards ensure compliance with regulatory frameworks like Basel II and Sarbanes-Oxley (SOX).

When Not to Consult the Metadata Repository

- We do **not** expect to consult the Metadata repository when **updating the operating system that the Master Data Management toolset is running on.**
- Metadata repositories are concerned with data, not with underlying system software.

Reference: Metadata repositories focus on data management rather than system-level operations like OS updates.

Perspectives Enabled by the Metadata Repository

- The metadata repository enables multiple perspectives of data, including the **Business and Technical Perspective.**
- These perspectives allow stakeholders from different roles to access the data in ways that are meaningful to them.

Reference: The business and technical perspectives help bridge the gap between business needs and technical implementations.

Unexpected Contents in the Metadata Repository

- **Data storage devices** are NOT something you would expect to find in a metadata repository.
- Metadata repositories store information about data, not physical hardware details.

Reference: Metadata focuses on the organization and description of data, not on the physical infrastructure.

Business Perspective Product in the Metadata Repository

- A business perspective product in the Metadata repository is the **Data Glossary.**
- The data glossary defines key business terms and their meanings, ensuring consistency across the organization.

Reference: The data glossary helps unify business language and data terminology across different departments.

Purpose of Building a Metadata Library

- The library of information about metadata is built so that **we can better manage it, have a shared formalized view of requirements, better understand it, be consistent in terminology**, and improve overall data management.

Reference: A well-maintained metadata library ensures data is used consistently and effectively across the organization.

True Statements About Metadata

- **Data models are components of a Metadata repository** is a true statement about metadata.
- Metadata repositories include data models that describe the structure and relationships within a database.

Reference: Data models are crucial components of metadata repositories, guiding the logical and physical organization of data.

Data Swamp

- **A Data Swamp** is a data lake that has become **messy, unclean, and inconsistent.**
- Without proper management, data lakes can devolve into disorganized repositories that are difficult to use.

Reference: Data swamps are a cautionary example of what happens when data lakes lack proper governance and metadata management.

Umbrella Term for Classification or Controlled Vocabulary

- An umbrella term for any classification or controlled vocabulary is **Taxonomy.**
- Taxonomies provide structured categorizations of data for easier organization and retrieval.

Reference: Taxonomies help organize data into meaningful categories, aiding in data governance and retrieval.

Metadata Repository Processes

- Metadata repository processes do not include **selecting Data Management library software, search, and storage technologies.**
- This process falls under infrastructure management, not metadata management.

Reference: Metadata repository processes focus on managing data and its descriptions, not on the technical tools used for infrastructure management.

What Provides More Value to Data Consumers

- Data consumers will get more value out of data when they are provided more **Context or Metadata.**
- Metadata adds meaning and context to raw data, making it more useful for analysis and decision-making.

Reference: Contextual metadata helps users better understand the significance of data and how it relates to business goals.

Metadata Focused on Data Governance

- **Business Metadata** focuses on the content and condition of data and includes details related to **Data Governance.**
- Business metadata helps ensure that data is used properly according to organizational policies.

Reference: Business metadata is crucial for aligning data management practices with governance and regulatory requirements.

Document-Focused Metadata

- When metadata activities are focused on documents, the information is referred to as **Preservation Metadata.**
- This type of metadata focuses on maintaining the long-term usability and integrity of documents.

Reference: Preservation metadata ensures that digital documents are archived and can be accessed over time without degradation.

Process Controlling Versions of Datasets

- The process that describes controlling versions of the organization's datasets is **Metadata.**
- Metadata helps track and manage different versions of data, ensuring consistency and accuracy across updates.

Reference: Metadata management includes version control to track changes and maintain data integrity.

Creation and Maintenance of Metadata

- The creation and maintenance of metadata should include **identifying and classifying sensitive data assets, locating sensitive data throughout the enterprise, and determining how each asset needs to be protected.**
- Metadata management plays a key role in protecting sensitive data and ensuring compliance with privacy regulations.

Reference: Proper metadata management helps identify, classify, and protect sensitive data, supporting compliance efforts.

Process Involving the Assessment of Data Product Changes

- The process that involves assessing the impact of proposed changes to existing data product entries is **Metadata.**
- Metadata management ensures that changes are evaluated for their impact on related data and systems.

Reference: Assessing changes through metadata management helps avoid negative impacts on data quality and system performance.

Initiatives That Established a Metadata Standard

- **BASEL II** established a Metadata Standard as part of its framework for managing financial data and regulatory compliance.
- This standard helps ensure consistent and accurate data reporting across financial institutions.

Reference: BASEL II introduced strict metadata standards to support transparency and regulatory compliance in the financial sector.

DAMA SAUDI

Thank You

CDMP
Certified Data Management Professional