# *Information*

# *Management*

# *Fundamentals*

## *by Dave Wells*

## *Module 0. About the Course (8 min)*

## *Module 1. Information Management Overview (25 min)*
- *Information Management Defined*
  - o Information
  - o Management
  - o Information + Management
  - o Information Management
- *The Scope of Information Management*
  - o IM Dimensions
  - o IM Disciplines
  - o Related Disciplines
  - o Grouping Related Disciplines
  - o A Stack View of IM
  - o An IM Framework

## *Module 2. Data Modeling and Metadata Management (87 min)*
- *Understanding the Data*
  - o Views of Data
  - o Projects Flow
  - o Describing the Data Meaning
  - o Describing the Data Constraints
  - o Describing the Data Relationships
  - o Describing the Data
- *Data Modeling*
  - o Data Modeling Defined
  - o Data Modeling Purpose
  - o Data Modeling Dependencies
  - o Data Modeling and People
  - o Kinds of Data Models
  - o Data Modeling Processes
  - o Entity-Relationship Modeling
    - ▪ Entities and Attributes
    - ▪ Relationships
    - ▪ Complete Set of Attributes
    - ▪ Normalization
    - ▪ Test Against Reality
    - ▪ Data Types and Indexes
    - ▪ Model Optimization
  - o Dimensional Data Modeling
    - ▪ Meter and Measures
    - ▪ Dimensions
    - ▪ Dimension Hierarchies
    - ▪ Dimensions and Meter Association
    - ▪ Dimension Attributes
    - ▪ Star Schema Modeling

- *Metadata Management*
  - o Metadata Defined
  - o Metadata Purpose: Classify

- o Metadata Purpose: Describe
- o Metadata Purpose: Guide
- o Metadata Purpose: Control
- o Metadata Dependencies
- o Metadata Classification
- o Metadata Kinds
- o Metadata Management Processes
- o Metadata and IT Projects
- o Metadata and People
- o Metadata Organizations
- o Metadata Skills & Competencies
- o Metadata Architecture
- o Metadata Standards
- o Metadata Tools & Technologies

## *Module 3. Content Management and Enterprise Information Management (59 min)*

- *Information Supply & Demand*
  - o Managing Information Supply & Demand
  - o The Goal
  - o Desired Outcomes
  - o Data Resource Perspectives
- *Content Management*
  - o CM Defined
  - o CM and the Content Workflow
  - o CM Purpose
  - o CM Dependencies
  - o CM Processes: Capture
  - o CM Processes: Manage
  - o CM Processes: Preserve
  - o CM Processes: Deliver
  - o CM and People
  - o CM and Systems
- *Enterprise Information Management*
  - o EIM Defined
  - o Program vs. Discipline View of EIM
  - o EIM Components
  - o EIM and Architecture
  - o EIM Dependencies
  - o EIM Purpose
  - o EIM Processes
  - o EIM and Roles
  - o EIM and People
  - o EIM Technology

## *Module 4. Data Quality and Data Governance (57 min)*

- *Data Utility*
  - o Introduction to Data Utility
  - o Ensuring Data Utility

- o Roles of Data Quality and Data Governance
- *Data Quality*
  - o Quality Defined
  - o Data Quality Defined
  - o Data Characteristics
  - o Data Quality Dependencies
  - o Purpose of DQM
    - Defect Free
    - Conformance to Specifications
    - Suitability to Purpose
    - Expectations & Needs
  - o Data Quality Processes
  - o Data Quality and People
  - o Data Quality Projects
  - o Data Quality and IS Projects
  - o Data Quality Technology
- *Data Governance*
  - o Data Governance Defined
  - o Data Governance Dependencies
  - o Data Governance Purpose
  - o Data Governance Processes
  - o Data Governance and People
  - o Data Governance and Management
  - o Data Governance and Technology

## Module 5. Data Integration, Data Warehousing and MDM (60 min)
- *Data Resource Consolidation*
  - o The Data Resource
  - o Disparate Data
  - o Connecting Disparate Data
- *Data Integration*
  - o Data Integration Defined
  - o Data Integration Options
  - o Data Integration Dependencies
  - o Data Integration Purpose
  - o Data Integration Processes
  - o Data Integration Systems
  - o Data Integration Technology
  - o Data Integration Project Examples
    - Data Migration
    - Data Consolidation
    - Data Warehousing (Hub & Spoke)
    - Analytic Application
    - Other Approaches
  - o Data Integration and People
- *Data Warehousing*
  - o Data Warehousing Defined
  - o Data Warehouse Defined
  - o Data Warehousing Architectures
  - o Data Warehousing Dependencies
  - o Data Warehousing Purpose

- Data Warehousing Processes
- Data Warehousing Projects
- Data Warehousing Systems
- Data Warehousing Technology
- Data Warehousing and People
  - *Master Data Management*
    - Master Data Defined
    - MDM Defined
    - MDM Overview
    - MDM Purpose
    - MDM Dependencies
    - MDM Processes: Implementation
    - MDM Processes: Operations
    - MDM Architectures
    - MDM Technology
    - MDM and People

## Module 6. Business Intelligence, Business Analytics and Performance Management (34 min)
- *Applied Information*
  - Data vs. Information
  - Information and Systems
  - Using Information
- *Business Intelligence*
  - BI Defined
  - BI Redefined
  - BI Purpose
  - BI Dependencies
  - BI Technology
  - BI Processes
  - Pervasive BI
  - BI for Masses
  - Role Based BI
  - Advanced BI
  - BI and People
- *Business Analytics*
  - Business Analytics Defined
  - Business Analytics Purpose
  - Business Analytics Dependencies
  - Business Analytic Processes
  - Business Analytic Technology
  - Business Analytics and People
- *Performance Management*
  - BPM Defined
  - BPM Purpose
  - BPM Dependencies
  - BPM Processes
  - BPM Technology
  - BPM and People

## *Module 7. Data Mining and Predictive Analytics (14 min)*

- *Discovery and Inference*
  - Learning the Unknown
  - From Data to Knowledge
- *Data Mining and Predictive Analytics*
  - Data Mining & Prediction Defined
  - Data Mining & Prediction Purpose
  - Data Mining & Prediction Dependencies
  - Data Mining & Prediction Processes
  - Data Mining Technology
  - Data Mining and People
- *Information Management Professionals*
  - The Roles of IM Disciplines
  - Careers and IM Disciplines
  - IM Opportunities