Data Governance: From theory to practice

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Why Data Governance?
## Why Data Governance?

<table>
<thead>
<tr>
<th>Challenges</th>
<th>Best Practices</th>
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<tbody>
<tr>
<td>Multiple versions of truth (e.g. Customer, Bookings)</td>
<td>Single version of truth</td>
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<td>Limited time for data analysis, time wasted on data gathering</td>
<td>More time for analysis; less data gathering &amp; reconciliation</td>
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<td>Project-driven approach resulting in disparate data definitions</td>
<td>Common data definitions leveraged across applications</td>
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<td>Uncontrolled data redundancy or data mart anarchy</td>
<td>Summarized data marts linked to a data warehouse support departmental reporting</td>
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<td>Unclear data ownership rules</td>
<td>Well defined data ownership/stewardship rules</td>
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<td>Inconsistent and incomplete information (poor quality)</td>
<td>Well defined data with robust data quality processes</td>
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<td>Inflexible custom code and “work-arounds” from early implementations</td>
<td>Cost effective/scalable technology to take advantage of newer functionality (lower TCO)</td>
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<td>No widely adopted standard reporting tools, Heavy “end-user” IT report support</td>
<td>Robust end-user toolbox and common portal, End-user self-service and process support</td>
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<td>Re-writing history for realignments &amp; errors</td>
<td>Detailed data repository acts as a data “clearing house”</td>
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<td>Development focus on providing detail data</td>
<td>Delivery of analytical applications versus reports (OLAP, dashboards etc)</td>
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<td>High IT maintenance and development costs</td>
<td>Well defined roadmap for adaptive IT architectures</td>
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Right Information at the right time to the right people to make the right decisions
THE DATA USER’S BILL OF RIGHTS

Data users have the right to know what the data means
1. The right to know the definition of the data.
2. The right to know where the data came from.
3. The right to know how the data was calculated or manipulated.

Data users have the right to know how risks to the data have (or have not) been managed
4. The right to know what Security risks weren't eliminated.
5. The right to know what Quality risks weren't eliminated.
6. The right to know what Privacy risks weren't eliminated.
7. The right to know what Compliance requirements influenced data processing and usage.

Data users have the right to know who made decisions about managing the data, according to what rules
8. The right to know who made data-related decisions.
9. The right to know what decision-making checks-and-balances were in place.
10. The right to know how issues have been and will be resolved.
Data Ownership

Many companies argue the point of “Who should own the data?” This is a difficult question to answer, since a data item may be created and subsequently modified by many different people and systems … 

.. I prefer to refer to the practice of enterprise data management for one simple reason and that is because data is an asset of the enterprise and ownership of it is an enterprise problem. If you accept this, it signals the need for roles, responsibilities and best practice disciplines to govern and control data as it comes into the enterprise, is used and in some cases is passed out of the enterprise to partners, suppliers and customers.

Data Ownership and Enterprise Data Management

Mike Ferguson
Data Ownership

Data is a business asset, and business assets are controlled by business people. Therefore, data owners and data stewards should be business people. They must be careful not to manage their data within the narrow focus of their own business unit (department or division); instead, they must ensure that their data is managed from an enterprise perspective so that it can be used and shared by all business units.

Master Data Management: Much More Than Technology
• **Data Governance**
  The execution and enforcement of authority over the management of data assets and the performance of data functions

• **Data Stewardship**
  The formalization of accountability for the management of data resources

Steward: Old English “Sty Ward”; “Keeper of the sty”
Formalising Data Governance
The DAMA Guide to
The Data Management
Body of Knowledge
(DAMA-DMBOK Guide)

First Edition

Mark Mosley, Editor – Development
Michael Brackett, Editor – Production
Susan Earley, Assistant Editor
Deborah Henderson, Project Sponsor
Data Management
Body of Knowledge
(DMBOK©) Guide
Version 3

Amazon.com or www.technicspub.com - $54.95 (CD)
Enterprise Server Edition $550.00
Hardcover Guide - $74.95 (available March 2010)
Environmental Functions

- Organization & Culture
  - Critical Success Factors
  - Reporting Structures
  - Management Metrics
  - Values, Beliefs, Expectations
  - Attitudes, Styles, Preferences
  - Rituals, Symbols, Heritage

- Technology
  - Tool Categories
  - Standards & Protocols
  - Selection Criteria
  - Learning Curves

- Activities
  - Phases, Tasks, Steps
  - Dependencies
  - Sequence & Flow
    - Use Case Scenarios
    - Trigger Events

- Practices & Techniques
  - Recognized Best Practices
  - Common Approaches
  - Alternative Techniques

- Goals & Principles
  - Vision & Mission
  - Business Benefits
  - Strategic Goals
  - Specific Objectives
  - Guiding Principles

- Roles & Responsibilities
  - Individual Roles
  - Organizational Roles
  - Business & IT Roles
  - Qualifications & Skills

- Deliverables
  - Inputs & Outputs
  - Information
  - Documents
  - Databases
  - Other Resources
**DMBOK Data Governance**

**Definition:** The exercise of authority and control (planning, monitoring, and enforcement) over the management of data assets.

**Goals:**
1. To define, approve, and communicate data strategies, policies, standards, architecture, procedures, and metrics.
2. To track and enforce regulatory compliance and conformance to data policies, standards, architecture, and procedures.
3. To sponsor, track, and oversee the delivery of data management projects and services.
4. To manage and resolve data related issues.
5. To understand and promote the value of data assets.

**Activities:**

1. **Data Management Planning (P)**
   - Understand Strategic Enterprise Data Needs
   - Develop and Maintain the Data Strategy
   - Establish Data Professional Roles and Organizations
   - Identify and Appoint Data Stewards
   - Establish Data Governance and Stewardship Organizations
   - Develop and Approve Data Policies, Standards, and Procedures
   - Review and Approve Data Architecture
   - Plan and Sponsor Data Management Projects and Services
   - Estimate Data Asset Value and Associated Costs

2. **Data Management Control (C)**
   - Supervise Data Professional Organizations and Staff
   - Coordinate Data Governance Activities
   - Manage and Resolve Data Related Issues
   - Monitor and Ensure Regulatory Compliance
   - Monitor and Enforce Conformance With Data Policies, Standards, and Architecture
   - Oversee Data Management Projects and Services
   - Communicate and Promote the Value of Data Assets

**Tools:**
- Intranet Website
- E-Mail
- Meta-data Tools
- Meta-data Repository
- Issue Management Tools
- Data Governance KPI Dashboard

**Primary Deliverables:**
- Data Policies
- Data Standards
- Resolved Issues
- Data Management Projects and Services
- Quality Data and Information
- Recognized Data Value

**Consumers:**
- Data Producers
- Knowledge Workers
- Managers and Executives
- Data Professionals
- Customers

**Metrics:**
- Data Value
- Data Management Cost
- Achievement of Objectives
- # of Decisions Made
- Steward Representation / Coverage
- Data Professional Headcount
- Data Management Process Maturity
DMBOK Data Governance

Issue Resolution

< 5%
Data Governance Council

Executive Data Stewards

Strategic

< 20%
Data Stewardship Steering Committee

Coordinating Data Stewards

Tactical

< 80 - 85%
Data Stewardship Teams

Business Data Stewards

Operational

Data Governance Office
Data Governance Council

- Primary & highest authority
- Senior management serving as Executive Data Stewards
- Chief Information Officer
- Data Management Leadership
- Data stewardship facilitator
- Meeting facilitators
Executive Data Steward

- Executive involvement is imperative
  - Breaking down the barriers/"ivory towers"
  - Political challenges the greatest obstacle
  - Do not need to attend stewardship meetings or participate in tasks such as data definitions
  - Need to provide appropriate level of support for business & technical stewards.

- Five key qualities:
  - Willing to be an Executive Sponsor
  - Executive Ranking
  - High Creditability
  - Knowledgeable on problems in the company
  - Willing to challenge the status quo
Business Steward

- Responsible for defining procedures, policies, data meanings and requirements of the organisation
- Business stewards can be from a department or subject matter area
- Strong knowledge of the business requirements and policies of the organisation
- Needs to make sound decisions and work with key members of the business in to gain consensus on business policies and requirements

Technical Steward

- Typically a member of the organisation’s IT department.
- Technical resources that focus on technical meta data and data that needs to be captured
Getting a bit more practical
Data Governance Assessment

Assess maturity
- Executive awareness
- Data “ownership”
- Data “stewardship”
- Organisation structures
- Processes & procedures

Establish requirements

Develop Data Governance Strategy

Define/Recommend
- Approach
- High Level Structures
- Roles/Responsibilities
- Change Management
- Budget

Mandate Data Governance Strategy

- Educate/Present
- Reporting line
- Agree strategy
- Get mandate to implement
- Identify Business & Technical Sponsor

- Identify/Appoint Implementation Team
- Appoint Principal Data Steward

Establish Data Governance Structures

Identify members
- Subject Areas
- Responsibilities

Define/Agree
- Responsibilities
- Operations
- Sanctions

Data Governance Committee

Best Practices

“Recruit” Data Stewards

- Roles
- Areas

Develop Data Stewardship Functions

The Data Council

Change Management Plan
- Importance
- Commitment

Launch Data Excellence

Messages
- This is serious
- Long term
- Everyone responsible

Educate Organisation

By area
- Responsibility
- Impact on others

Create Data Excellence Awareness

The Data Council

Training & Mentoring
Approach

• *Be direct and strong:* When a law is put in place, you do not have an option whether to follow it or not. Break it and there are consequences.

• *Data Governance is not a game:* it is serious business.

• Stewardship is akin to accountability.

• Ensure Data Stewardship focuses on the formalization of the roles and responsibilities rather than the assignment of responsibilities.

• *Data Stewards are already there.* The challenge is to get them to participate and operate more efficiently and effectively in these data management roles.
History in ACC

• 2006 Information Governance Committee
  – Failed: no terms of reference
• BI Strategy identified data governance
  – CSF for Strategy
• Data Quality Effectiveness Review
• Data Quality Working Group
• Recommended Data Governance
  – Received Mandate
  – Formed Data Governance Committee
  – Identified and appointed Data Stewards
  – Formed Data Council
Data Governance in ACC

Data governance provides the framework for the intersection of IMG and business working together to establish confidence and credibility in the enterprise’s information.
**Executive Sponsorship**
- Initiation
- Quarterly

**Strategic Data Governance**
- Monthly then Quarterly

**Tactical Data Governance**
- Weekly

**Data Governance Execution**
- Ongoing

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**Executives: CFO, CIO, CHR, CRO…**

Provide mandate and visible support for Data Governance
- Incl. Governance Process, Data Certification & Reporting

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**Data Governance Committee**

Sanction & Approve
- Data Governance Policies/Procedures
- Report on Data Governance Implementation Progress Issue Resolution

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**The Data Council**

Responsibilities
- Priorities, Tasks
- Improvements Changes, Issues
- Member responsible for
- Business Unit
- A Data Function:
- Data Quality
- Data Definitions
- Data Lineage
- Data Modeling
- Data Access
- Data Security

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**Business Unit Data Governance**

- Management Roles
- Architecture Groups

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Responsible functional groups forming governance
- Business Units, Risk Managers, Finance, Compliance, Reporting
ACC Executive Mandate

- Defining & implementing a data governance framework across ACC
- Management of data
- Oversee the implementation of the ACC Business Intelligence strategy where it supports the aims and objectives of data governance
- Responsible for all data quality initiatives and resolution of data issues across ACC
- Incorporating existing initiatives where appropriate
ACC Data Governance Committee

• 4 Executive Members
  □ Executive Data Stewards
• GM: ICT
• Chair: The Data Council
• Data Governance Office
  – In Attendance (no voting rights)
  – Facilitation
Where are we?

• Governance Structures formed
• Main focus areas
  – Communication
  – Clarification of roles
  – Coordinating data quality projects
  – Reintegration of roles between business and IT
Data Governance Maturity Model

Stage 1: Strategy & Framework
Stage 2: Scenarios & Validation
Stage 3: Formalised Organisation & Responsive Process Rollout
Stage 4: Proactive Process Rollout
Stage 5: Expanded Business Involvement
Stage 6: Stewardship Culture
Stage 7: Strategic Governance
Useful Sites

• Data Management Association (DAMA)  
  www.dama.org

• The Data Administrator Newsletter  
  www.tdan.com

• The Data Governance Institute (DGI)  
  www.datagovernance.com
Data Management Interest Group?

• No DAMA chapter in NZ
• If enough interest, can start a DMIG
• Contact me
  zeeman.vandermerwe@ACC.co.nz