

## Not All Data Are Created Equal - Taxonomic Data and Data Governance

### ABSTRACT-----

Business value lost due to poor data quality has lead organizations to look for Data Governance. The assumption is that having a consistent management process and a data stewardship organization leads to higher data quality.

However, Data Governance is a broad concept, running horizontal to the enterprise. Due to its cross-organizational nature that spans business and technology domains, focusing Data Governance effort is challenging. This presentation argues that reaching the desired business value and bridging the cross-organizational gaps requires that taxonomic data such as product and customer groups should be among the foci. The key reason is that value from strategic initiatives such as customer segmentation, sourcing improvement, and product portfolio optimization are largely dependent on taxonomic dimensions.

The presentation illustrates how taxonomic data management becomes an integral part of Data Governance program. Pragmatic steps are suggested. Concrete cases are presented for illustrating both the challenges and the business value.

### BIOGRAPHY-----

#### **Kimmo Kontra**

Manager  
Accenture (Helsinki Office)

Mr. Kimmo Kontra works as a manager for Accenture in Helsinki office, in Accenture Information Management Services, in Data Management & Architecture domain. Prior to joining the world of consultancy in 2005, Kimmo worked in various positions in a manufacturing company for nearly six years.



Recently Kimmo has mainly worked with the quality of structured data in enterprise system, having his focus especially in Data Quality and Data Governance. Kimmo's professional interests lie in ensuring good data quality that truly supports business strategies. Kimmo has seen that Data Governance at its best can provide this linkage.

Kimmo holds a M.Sc. Degree from Helsinki University of Technology from the department of Industrial Management. He also is at the beginning of his quest for a post-graduate degree in the same university.



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## Not All Data Are Created Equal Taxonomic Data and Data Governance

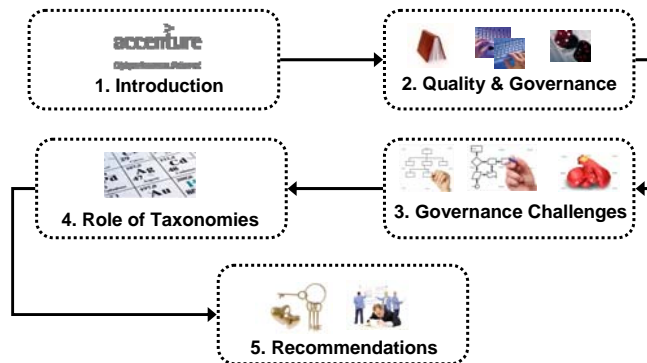
Kimmo Kontra, Accenture  
Information Quality Industry Symposium 2009  
at Massachusetts Institute of Technology




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### Outline






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## Accenture




**accenture**  
*High performance. Delivered.*

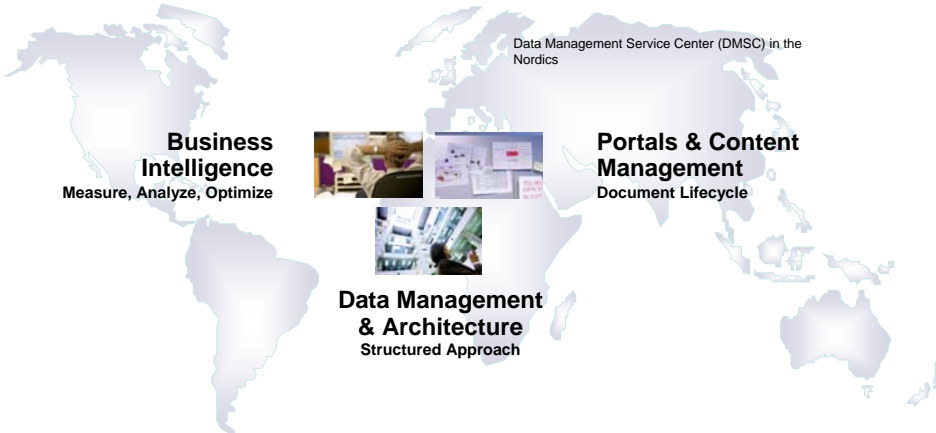
- 187 000+ employees
- 52 countries
- Net Revenues 23.39 billion USD in fiscal year 2008
- Comprehensive capabilities across all industries and business functions




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## AIMS – Accenture Information Management Services




**Business Intelligence**  
Measure, Analyze, Optimize



**Portals & Content Management**  
Document Lifecycle



**Data Management & Architecture**  
Structured Approach



Data Management Service Center (DMSC) in the Nordics

- AIMS offers a set of skills for future holistic information services architectures



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### Value lost due to poor Data Quality – example framework

#### Direct losses



Data entry and maintenance work inefficient & error-prone, as well creating duplicates



Errors in shipping, handling, warehouses. Purchasing inefficient

#### Indirect losses



Poor decision making as analytics not providing right information



Lost option value – low data quality undermines efficiencies promised by SOA or moving towards BPM, ...



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### Data Governance – a key to value



Data Governance is how an enterprise **manages its data assets**. Governance includes the **rules, policies, procedures, roles and responsibilities** that guide overall management of an enterprise's data. Governance provides the guidance to ensure that data is accurate & consistent, complete, available, and secure.

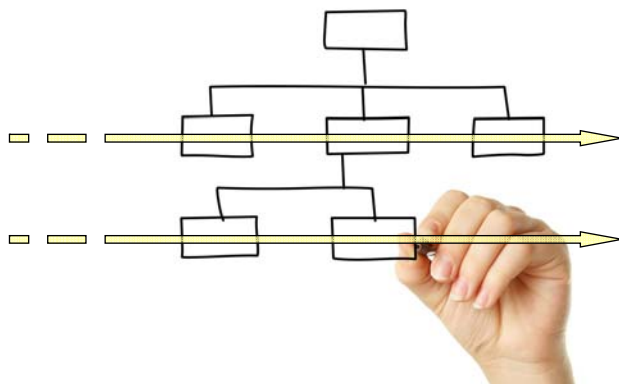
*Accenture Information Management Services*



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### Challenge 1 – Cross-organizational nature



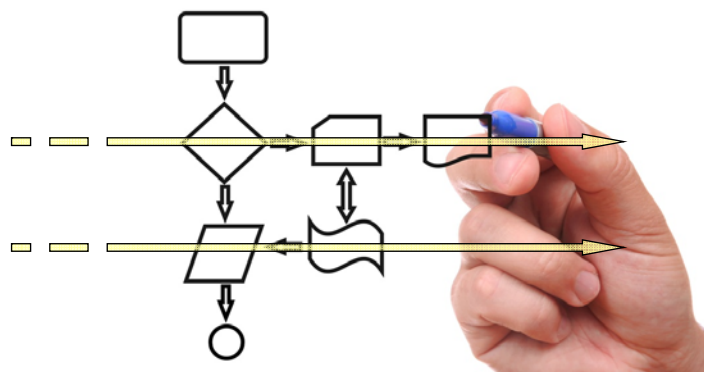
Everyone's business = No one's business.



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### Challenge 2 – Cross-process nature of data



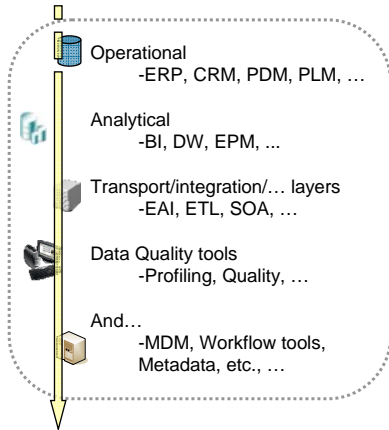
In all processes, across matrices = again, no one's business



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### Challenge 3 – IT complexity



Key Data Entities like customers, vendors, and materials shared/used/managed by nearly every system



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### Challenge 4 – “Softer” social issues



***“Indeed, no data issue is so small that a simple solution is agreed by all”\****

\*Thomas Redman, "Data Driven", 2008



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### Summing it all up...



Cross-organizational nature

+



Cross-process nature

+



IT complexity

+



"Softer" issues

=



governors of data



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### ... and the end-result being

"Master Data is **boring** – everyone wants to be in business"



"We established data governance, but almost **no one** anymore **cares**"

"I'm **not the right steward** for customer data – **somebody else** should be doing it"



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### Silver bullets ... do not exist



One-size-fits-all medicines for solving all the challenges to ensure good Data Governance and thus enable high Data Quality do not exist.

However, paying special attention to taxonomic data might help...



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### Taxonomies







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## Taxonomies on a closer look



- **Taxonomy is\***
  - **Classification Scheme**
  - **Semantic**
  - **Knowledge map**
- **In the context of Data Governance: taxonomic data = subset of reference data such as..**
  - **Customer segments**
  - **Material groups**
  - **Product hierarchies**
  - **..and many others..**

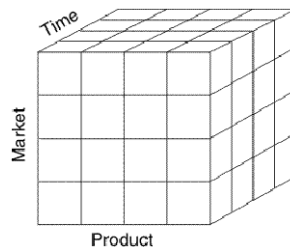
*Patrick Lambe, "Organizational Knowledge", 2007*



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## Importance of Taxonomies – part I



Analytics attempts to make sense of the world, providing insight for decision making. Reporting dimensions are mostly taxonomic data.

Analytics-based business initiatives such as sourcing improvements, product portfolio optimization, customer profitability analyses... rely largely on taxonomic data.



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## Importance of Taxonomies – part II



Taxonomic data are also such that they span multiple domains – from operational systems to e-com to web-sites to BI, across organizational units

..and when a unified "MDM" system often remains a distant dream, the coordination of taxonomies across the domains is paramount!



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## The State of Taxonomies

- *Not all taxonomies in operational systems are like the one by Mendeleev, pure and beautiful*



- **Instead, mistake abound in the structure of taxonomies:**

- Different level of granularities
- Combining non-related dimensions
- Not having mutually exclusive values
- Overuse of "others" or "misc"

- **And the same in their usage**

- Especially those taxonomic fields that are analytical purpose only, disciplined maintenance a burden

- Quick'n'dirty approach is to try to fix these challenges in reporting layer, not establishing solid Data Governance – but that's Band-Aid!

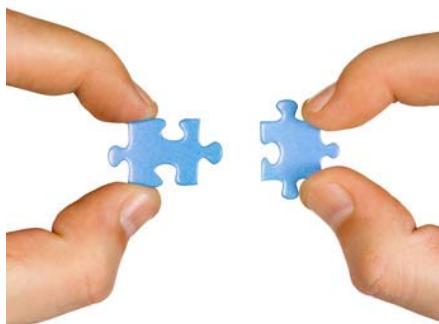




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## An Approach



The challenges with taxonomies can be solved and simultaneously leveraged to support Data Governance initiative and Data Quality in general.



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## 1. Leverage taxonomic data for getting executive support for Data Governance



Due to the nature of taxonomic data as key analytics dimensions, it often is close to the heart of a decision maker. Could they even be **the keys** for obtaining true Data Governance sponsorship?

→ This can help in overcoming the cross-organization & cross process challenges



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## 2. Train the key Data Governance people on taxonomies



Basic understanding of taxonomies should be among the toolbox of all Data Owners/Stewards of key data entities (vendors, materials,...)

→ This helps to overcome "softer" issues, but also to close cross-organization gaps!



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## 3. Understand interconnectedness – staff projects accordingly, spend enough time on architecture



All key entities are highly connected – taxonomic reference data even more so. In any large systems projects and especially in any and all **M&A** cases, separate Data Governance task force should be mobilized and taxonomy work resourced sufficiently therein

→ Helps to combat IT complexity, as well as "softer" issues



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#### 4. Emphasis on Maintenance



Disciplined maintenance both a) in the sense of using taxonomic reference data in operations by Data Producers, and b) maintaining the taxonomies is needed.



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#### Summary

- Low data quality is a serious **business issue** – value is lost
- **Data Governance** aims to bring discipline and to create a culture for high quality data – thus creating value
- Reaching efficient Data Governance is **challenging** due to a set of **root causes**:
  - Cross-everything-nature of data, IT complexity, & social issues
- **Taxonomic data** can have a special role in tackling the root causes
- A few **key actions** around taxonomic data can help:
  - Leveraging taxonomic data as a driver for DG executive support
  - Training key people in DG roles for taxonomies
  - Acknowledging the interdependencies, resourcing sufficiently
  - Maintenance, maintenance, maintenance





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## Questions / Discussion?



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