

# DM Review

EXTENDED EDITION

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*Titles are hot linked to the articles*

## Letter from the Editor



Mary Jo Nott  
Editor in Chief

We have an exciting *DM Review Extended Edition* for you this month. Our goal is to provide excellent insight into the business drivers you face in your workplace. This issue touches on outsourcing, master data management as a viable business program and seven considerations for an enterprise-wide DW/BI strategy. You'll also find SOA survey results from Aberdeen Group and a dashboard product review from LGX Info. Thanks for reading.

*Mary Jo Nott*

## Upcoming Web Seminars

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Dashboards: The New Face of Performance Management  
September 26 - 2 p.m. ET

### Business Objects and Microsoft

Three Steps to Information Worker Nirvana  
September 27 - Noon ET

### Teradata, a division of NCR

Beyond Epidemics and Disasters: Managing Supply Chain Risk  
in Your Core Business  
October 4 - Noon ET

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# MASTER DATA MANAGEMENT

## Catchy Buzzword or Legitimate Business Program?

By Robert Stowell

**W**e have all heard that content is king, but if so, what is the state of the kingdom? Does the empire or, should I say, the enterprise, appreciate that business content and corporate data are strategic business assets? In many cases, enterprise content and business data have become as valuable as inventory, manufacturing facilities and personnel. Bold statement? Maybe. Emerging trend? Absolutely!

Globalization. Intense government and regulatory scrutiny. Overwhelming competitive pressures. New technology advances. Today's enterprises operate in a fiercely competitive global marketplace where success is measured in fractions of a second by razor-thin margins. Further, ever-increasing pressures to take advantage of interdepartmental or business unit synergies and economies of scale have generated a host of new management problems that were unheard of even 15 years ago.

In this type of environment, it is critical for decision-makers and knowledge workers to have timely access to consistent and accurate data. The IT function must be able to integrate and standardize content and data information systems ranging from planning and engineering to procurement, fulfillment, customer service, sales and marketing.

It is becoming increasingly obvious that problems caused by bad data can't be ignored. Content and data generated by many businesses doubles every 12 to 18 months.<sup>1</sup> Technological sophistication

and the Internet have increased the venues by which information can be distributed.

In order to obtain a single version of the truth about enterprise data, management must have access to reports supported by standardized definitions of core business views such as customer, product, legal entity, chart of accounts, employee, vendor, channel, geography, branch, business unit, sales unit and so on. In other words, they must manage their business performance more effectively.

Thus, creating, developing and executing on an enterprise-wide master data management (MDM) strategy is an emerging trend yielding measurable and tangible results for all types of global enterprises. This type of initiative has now become mission critical and, in some cases, a mantra at the highest executive levels.

*Is MDM a kind of software?* Not exactly. Software is an important component of the answer but by itself cannot provide a standalone solution to data enterprise problems. Many companies that have spent millions on enterprise resource planning (ERP) or content-cleansing software ultimately end up in a cycle of buy it, try it and shelve it. When software fails to generate anticipated ROI due to data issues, the software is typically abandoned, and the corporate content and data problems never get addressed.

*What is MDM?* As opposed to being a technology or a shrink-wrapped product,

MDM is comprised of a mixture of software applications, methods and, to a large extent, human intelligence. When properly executed, these elements can support the capture, integration and subsequent shared use of accurate, timely, consistent and complete master data.

The holy grail among many enterprise executives is to see business processes and knowledge become a shared asset not only across a company, but also across trading partners to minimize inefficiencies and maximize value.

Thus, an effective MDM initiative should be considered a program, not merely a technology play. Among other things, an MDM program is intended to:

- Assess the use of core information across all business units and the enterprise;
- Identify core information objects that would benefit from centralization;
- Collect and harmonize unique instances to populate a shared repository;
- Integrate the harmonized view of data object instances with existing and newly developed business applications via a service-oriented approach; and
- Institute the proper data governance policies and procedures at the corporate or organizational level to ensure the continuous maintenance of the master data repository.

Thus, MDM is more than a singular software application. It is a composition of tools, methods, policies and, above all, *analytical human intelligence*. In reality, software implementations often exacerbate or increase visibility of the problems

caused by bad data. Sophisticated point-to-point software solutions create a new reconciliation challenge in determining which system has the "better" content. Unfortunately, these types of applications offer no means to improving the quality and integrity of legacy content. This reconciliation problem is also present in many M&A scenarios, when data must be migrated from one software system or platform to another.

The challenges increase in complexity with the abundance of external data sources, trading partners and repositories. Gone are the days when product information was published solely in print or electronic catalogs. Corporate content and data is now published directly to global trading exchanges, market-specific repositories such as IDW2, via initiatives such as EDI and RFID, and directly to a multitude of clients and customer repositories in client-specific formats.

*How can companies effectively address their data problems?* Many larger software companies are advocating MDM software applications. MDM software is designed to span the enterprise and provide a centralized single version of the truth regarding customer, vendor and product information. However, seasoned business professionals have become battle-hardened because, through experience, they no longer see software applications as the magic cure to all their data quality issues. As a result, most sellers of MDM are advocating a three-pronged data governance strategy, in which data quality initiatives and business process revisions play an equally important role as software.

Data structuring and other data quality initiatives define the correctness of legacy data and make data compliant to that correct standard. Additionally, choosing the right software to house and distribute cleansed data is an important component to any content strategy. Finally, robust data entry processes focus on the prevention of bad data. By aligning these three elements, companies can fix data problems, maintain fixed data and prevent data problems from recurring.

Other key elements of an effective data governance strategy include:

1. *Assign effective ownership of the problem.*

Data problems are typically relegated to IT departments who do not own the

processes for data entry. To transform business data from a problem into a strategic corporate asset, ownership of corporate information needs to reside within senior levels of executive management, who need to be attuned to the benefits that data quality can bring. "Most organizations have a culture where they view data as a necessary IT evil and not really a business asset like employees and buildings," said Ted Friedman, principal analyst for Gartner. "There's not enough good data quality control in place to make sure data is maintained in the right way going forward."

2. *Understand the gap.* Begin with an analysis of how far your existing data is from an ideal state. There is no standard way to measure data quality, but existing methodologies such as Six Sigma and ANSI can provide basic techniques for defining defective data and statistically benchmarking those defects to provide an objective way to measure data quality and improvement. With these benchmarks in mind, it becomes possible to add specific and measurable milestones to an incremental quality improvement plan that improves data from the current to the ideal state.

3. *Consolidate and control your data.* Customer, vendor and product information should be consolidated into centralized repositories and databases so that distribution of information can be effectively automated and controlled. Data authorship should be assigned to stewards from IT and various business units who have been trained in data governance.

4. *Create effective data models.* Data that is broken down into granular, specific atomic data models can be repurposed to a variety of different data structures or client-specific formats. Data that is vaguely defined requires extensive manual analysis and intervention to meet the same objective. An *atomic data process* can also help to identify and eliminate duplication within legacy systems.

Customer relationship management (CRM) data needs to be more specific than "customer name" or "address" for any reconciliation efforts to become effective. Similarly, product information needs to go beyond cryptic "description" fields in order to become a true competitive differentiator.

5. *Understand your core competencies.* Companies often understand what information is important to their customers, but few have expertise turning those branding-specific activities into a robust data quality process.

6. *Begin now.* Every day the problem is ignored costs your company money. If designing a global solution provides too many targets, begin your commitment to data quality by implementing a scalable point-specific solution. Standardize your CRM, marketing or ERP systems and use that standardization as a foundation for an enterprise-wide data model.

7. *Be prepared to audit, improve and adapt.* Data quality is not a project, it's a process, a religion and a way of life. Until the world adopts a singular global data standard, companies with the ability to provide robust structured information on demand will continue to outpace, outsell and out-compete their slower, less adaptable rivals.

This dirty data problem will continue to proliferate unless organizations take the necessary steps to institute a sustainable MDM program. Software alone is not the silver bullet. According to a survey conducted by the Data Warehouse Institute, 53 percent of the 750 IT professionals and business executives surveyed said their companies had experienced problems and suffered losses or increased costs because of poor-quality data.<sup>2</sup>

The secrets to the success of this type of program lie in understanding how MDM will transition your enterprise into an organization with a strong data governance framework, effective data stewardship, superior analytical human intelligence and a culture of proactive data quality assurance. A well-executed MDM program will lead to more effective integration of business technology, better organizational collaboration and will ultimately result in increased competitive advantage.

*References:*

1. Rick Whiting. "Hamstrung by Defective Data." *Information Week*, 8 May 2006.
2. Philip Russom. "Taking Data Quality to the Enterprise through Data Governance." TDWI Report Series, March 2006, 9.

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