intelliTide

A MASTER CLASS ON THE FUTURE OF DATA MANAGEMENT

The IntelliMind journeys into the future of Master Data Management

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DATA U - 8754 [89 - 904 | 895 - URT] Master Data Management (MDM) has been evolving into a crucial component of business critical systems. Even as we use the present continuous, MDM is evolving faster than ever before, transcending the role of being only a data quality and data governance solution.

The capabilities of MDM are developing at a rate that promises to propel organizational growth with a direct influence on financial outcomes. As Forrester notes in a 2019 report on Master Data Management, this new generation of MDM solutions need to prioritize speed above compliance and governance.

MDM is a quintessential element for any venture's Data Fabric Strategy - the idea that data from various sources may be stitched together. As Master Data Management evolves into an interdisciplinary study of data that can make or break the future of an organization, here are some observations we found in our pursuit to understand key futuristic trends in MDM.

JOURNEY INTO THE CENTER OF THE DATA UNIVERSE WITH MDM

Not long ago, products/SKUs would be created in ERP, customers in CRM and vendors in ERP or Vendor Management Systems before being brought into MDM for creation of a golden record. Today, they are often being authored and updated in MDM before being syndicated back to their transactional and operational systems - already in a golden, cleansed and enriched state from the start. This gradual shift to a centralized system is said to have a profound impact on the evolution of MDM product features and implementation.

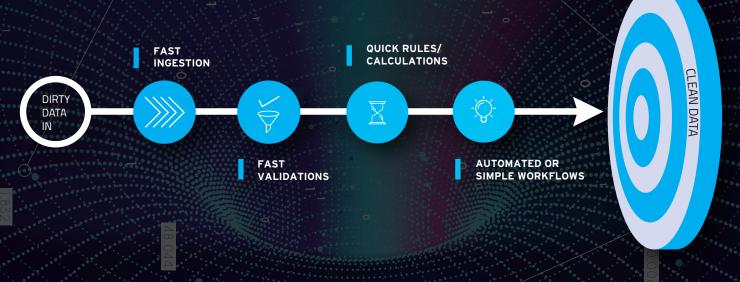


FUTURISTIC SCENARIO #2

MDM IS A PART OF EVERY GIVE AND TAKE INVOLVING DATA

Attributes like product price, promotions, discounts, SEO and even inventory, which were historically regarded as transactional data, are finding their way into MDM today. With demand for ever shrinking go-to-market times for products and need for faster item promotions, MDM is going to feel like a high performance, highly available, mission critical system than the erstwhile data quality and governance solution - where items would spend days in the workflow without anyone ever batting an eyelid.

MDM's synergy with Ecommerce and the growing need for real-time analytics, are only some of the factors driving the demand for faster item launch and ingestion of transaction data, transforming MDM into a functional transaction system.



AN INTELLITIDE EBOOK ON THE FUTURE OF MDM

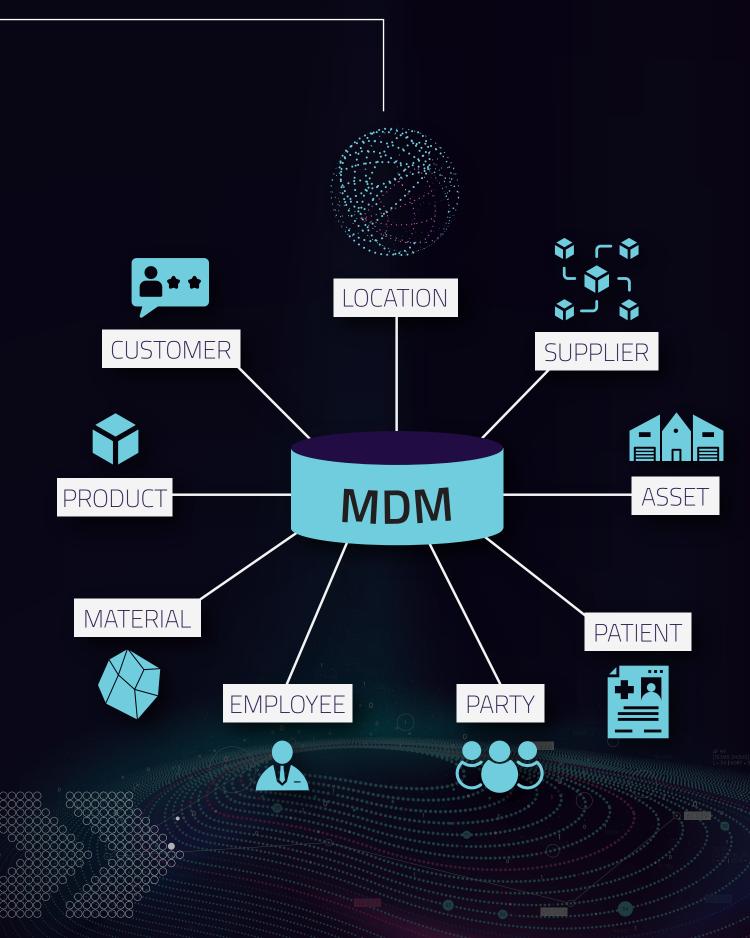
DATA IS NOT AN ISLAND. MULTI-DOMAIN MDM WILL TELL YOU.

Customers, suppliers, products, party, assets, locations, employees, patients, finance and a whole array of domains are being modeled in MDM today. As a result, MDM is increasingly becoming multi-domain, and modeling and tracking Data Lineage within MDM is becoming an increasingly real possibility. MDM volumes are growing larger and we see an ever-growing demand for performance, scalability and availability of MDM solutions.

MDM's reach now extends to many more functions and departments of an organization – Marketing, Ecommerce, Operations, Accounting, HR, to name a few. It is also interfacing with many more systems within an organization – ERP, CRM, Vendor Management, Warehouse Management, Retail Management System and more.

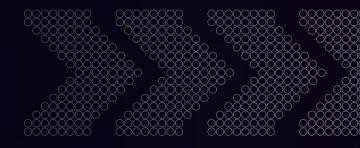
With more and more domains added to MDM, it is now beginning to model what enterprise data truly is – a massive interconnected graph of objects. Every entity in an enterprise will soon be connected directly or indirectly to every other entity, and this raises possibilities of interesting analytical use cases like 360 degree insights and identifying GTM bottlenecks. In essence, a MDM system will become a key element of an organization's Data Fabric artchitecture.





MDM & E-COMMERCE: A MATCH MADE IN HEAVEN

In 2021 alone, retail Ecommerce sales brought in USD 5.2 trillion and is expected to grow to USD 8.1 trillion by 2026. The global B2B Ecommerce market was USD 14.9 trillion in 2020 alone and nearly 5 times the B2C market size. That's a lot in terms of products being sold online and data that needs to be managed, cleaned and enriched - a task that Ecommerce platforms alone are not capable of performing. In the early days Ecommerce solutions were just one of the destinations for MDM data, but today this marriage between MDM and Ecommerce has given way to numerous new scenarios:



AN INTELLITIDE EBOOK ON THE FUTURE OF MDM

B2B2C transformation:

With stores, offices and restaurants closed and people forced to order online from home during the pandemic, B2B sellers had to adapt and sell direct to consumer. This sudden B2B2C shift has forced MDMs to quickly adapt as well, and will need to continue to evolve to support these models.

Multi-channel Syndication

More and more merchants are selling direct to consumer and thus leveraging B2C online marketplaces like Walmart, Home Depot, Lowes, and so on, in addition to Amazon. These channels are being used in addition to their own online stores. Products now are being syndicated to multiple channels from MDM/PIM, and customer records in MDM now include both B2B and B2C buyers.

Faster product launch times

The demand for fast product launch and turnaround times has been increasing since businesses are relying on launching their wares on online stores first for faster go-to-market. MDMs don't have the luxury of slowly moving a product from introduction to launch anymore, unlike in the past.



Pricing and inventory

Ecommerce implementation teams are reluctant to source product data from MDM and pricing from a different source. This leads to slower launch times and more complex processes for the eCommerce solutions. Online and end-user pricing that was not traditionally a product attribute in MDM, is now becoming a part of more and more data models. So is inventory or at least an inventory availability status flag. Online channels like Amazon need merchants to supply inventory information along with product details. In most cases though, these transactional attributes like Price and Inventory are mostly "pass through" attributes via MDM and no transformation and calculations are applied.

Analytics and Automation

To launch products faster and quickly update product content, it is mandatory to have a singular focus on removing bottlenecks and prioritizing workloads to meet SLAs, for which companies are employing analytics and automation. Other use cases involving analytics include product auto-classification, continuous data quality assessments, SEO optimization and Customer & Product 360 degree reporting.



SAY THANKS IN ADVANCE TO MDM AND ADVANCED ANALYTICS

In the new era of MDM where we want super fast launch time, eCommerce enablement, multi-domain data sets, automation and 360 views of entities and more, the importance of advanced analytics should not be underestimated. The analytics we are talking about is more advanced than basic Data Quality reporting, which is what MDM solutions offer today.

DESCRIPTIVE ANALYTICS

MDM tools collect a lot of historic data including state changes and audit information. This information will come handy for learning the historic trends and patterns that will be useful for Predictive, Diagnostic and Prescriptive Analytics, answering the question of "what happened".

DIAGNOSTIC ANALYTICS

Drilling down and analysing the negative trends identified by analysing the trove of historic data will help answer the question of "why did this happen". Diagnostic Analytics has been traditionally under-utilized in MDM, but that will be changing soon.

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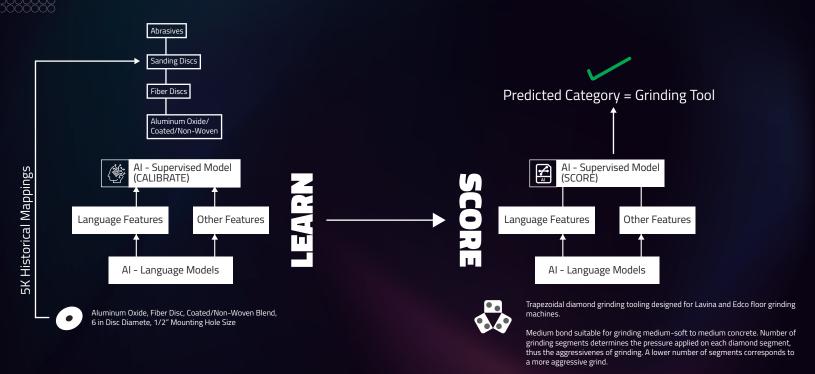
FUTURISTIC SCENARIO #6 WHO SAID YOU CAN'T PREDICT THE FUTURE?

The next evolution of MDM will entail using AI and ML to predict events, classify information, identify data anomalies and provide recommendations. AI/ML techniques are being widely adopted elsewhere, and MDM is expected to soon follow suite. Though they have access to large troves of high-quality data, current MDM solutions are not good at either prediction or prescription. AI will be employed not just to predict future trends and events but also prescribe the action that needs to be taken, equipping companies to make informed and intelligent data-driven business decisions.

Even with increasing adoption of AI in MDM solutions, the features that MDM products offer will be limited due to the absence of transaction data. To overcome this limitation, third-party vendors or companies themselves will rely on data warehouse technologies like Snowflake or Amazon Redshift to pull both Master data from MDM, and meaningful Transaction data from other sources.

- Product and image taxonomy classification
- >>>> Predict certain attribute values based on supervised ML models
- Identifying anomalies in data that deterministic validations and rules cannot
- >>>> Predicting SLA's from historic analysis (e.g. finding acceptable DQ score to promote an item)

When enough description/category mappings are available, our approach uses an AI model to learn that mapping, and then the model can be used to predict the category for a new product.



FUTURISTIC SCENARIO #7

LET IT BE WITH MDM AND AUTOMATION

Human involvement in any business process, workflow or activity has the potential to cause delays, and is prone to errors especially as the workload increases. Automating certain activities, specially those that can be identified as repetitive in nature, will go a long way in reducing human errors and accelerating output. These days with data volumes increasing and SLAs like product launch and product update times shrinking, reducing the amount of human intervention with automation could be a viable strategy.

By automation, we don't necessarily mean employing technologies like Robotic Process Automation (RPA). Automation can be implemented by other means like custom scripting or extending the MDM platform by executing custom developed services that interact with the MDM system. To identify which activities can be automated, MDM solution providers and implementers will rely heavily on analytics and the simplification of MDM processes and workflows. Automation is much easier to design when processes are lightweight.

As an example of automation, consider the problem of classifying products within a taxonomy. Today, within MDM or outside of MDM, users are tasked with assigning the product to an appropriate category in the taxonomy. This task can be easily accomplished if the volume of items is small. However, when you are dealing with thousands of items, it becomes very time consuming and error-prone. Automating this job using an AI/ML auto-classification model is a much better strategy even though developing, testing and tuning the model for accuracy itself could take a while.





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ABOUT INTELLITIDE INTELLIMIND'S STELLAR TRACK RECORD

-• 2017

Started in 2017 with an aim to provide **Master Data Management**, **Data Analytics Services** and **Solutions**

• 2018

Founders were part of **Top Ranked Master Data** and **Data Science solutions teams**

FORESTER Gartner

• 2019

Became partners with EnterWorks + 7x growth in revenue YOY

EnterWorks

• 2020

Launched several successful PIM solutions in US

+ Expanded our US and India operations four-fold

-• 2021

Launched our Informatica MDM Practice

- + Expanded to Australia and LTAM with our first customer wins
- + Announced partnership with Precisely

precisely

• 2022

Became official **Informatica** and **Tableau** partner

- + More than **70 highly technical staff** with data expertise
- + Beta launch of **FactorAI** the **AI SAAS platform** for advanced MDM analytics
- + Growth doubled YOY
- + a b | e a u Informatica

With operations across the U.S., India and Australia, IntelliTide has been making a wave supporting clients from around the globe. With over 35 MDM implementations, 40+ trained and certified resources, and CSAT scores over 90%, our solutions have evolved with us - including our recent pride, **FactorAI** an indigenously developed Data Decision Engine.

ABOUT INTELLITIDE

INSIGHTFUL DATA MADE POSSIBLE BY:

FACTORAL

- + Prescriptive Intelligence for MDM
- + Advanced Analytics and AI SAAS Platform
- + Analytics Consulting
- + Data Science
- + Predictive Analysis

Integration Services

- + ETL Implementation
- + Data Governance
- + Data Quality Implementation
- + Data Quality Consulting

MDM Implementations

- + Product Master
- + Supplier Master
- + Customer Master
- + Customer/ Product/ Supplier 360

Hosting and Managed Services

- + Big Data Management
- + Data Visualization
- + Data Analysis
- + eCommerce Syndication
- + Managed Services
- + Data Strategy and Roadmap

Support

- + Troubleshoot, diagnose and resolve application issues
- + Minor configuration changes and updates
- + Consulting effort required to address issues that are not application support (e.g. hosting environment, integration issues or user errors)

Data speaks louder than words.

We've clocked nearly 100 Million Master Records in MDM.

intelliTide

Consult the IntelliMind today to make the intelligent decisions your business needs to thrive.

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