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PRESENTATION OBJECTIVES

- ✓ UNDERSTAND WHAT WE MEAN BY DATA VALUE MANAGEMENT
- ✓ IDENTIFY DATA SOURCES & THEIR POTENTIAL VALUE
- ✓ EXPLAIN WHY 'STRATEGIC DATA' IS ESSENTIAL
- ✓ SHOW HOW DATA MANAGEMENT UNLOCKS THE VALUE
- ✓ DEMONSTRATE THE COST OF NOT FOLLOWING A PLAN
- ✓ IDENTIFY THE DATA MANAGEMENT TOOLKIT
- ✓ ARTICULATE THE ACTIVITIES EXECUTED UNDER DATA MANAGEMENT



INTRODUCTION - THREE KILLER STATISTICS

- 1. On average, data is valued at **37%** of a company's net worth¹
- The quality of <u>unmanaged</u> data degrades at a rate of 2% per month²
- Internet-era technologies are growing data volumes by 83% every year³

Data is a valuable asset that needs to be managed and its complexity is growing at a rapid pace. If you do not start to properly manage it now, the problem is going to worsen over time.

(2) Beth Eisenfeld, Gartner Group

⁽¹⁾ David Reed, Precision Marketing, 2006

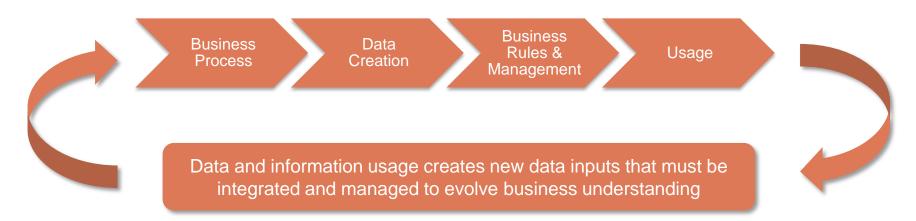
⁽³⁾ Prof. Erik Brynjolfsson & Mr. Heekyung Kim, MIT; Prof. Lorin Hitt, Wharton School, University of Pennsylvania



WHAT IS DATA VALUE MANAGEMENT?

Data Value Management is set of frameworks that enables an organization to proactively manage its data asset to help deliver on its business objectives, and the key to this is the ability to measure the impact of the data initiatives based on both activity and *value*.

The Data Lifecycle





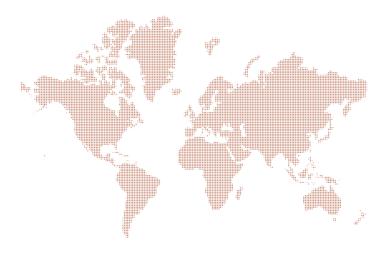
DATA SOURCES & THEIR POTENTIAL VALUE

DATA IS EVERYWHERE

- Mobile, connected, and location capable 'smart devices' are introducing a world in which data is generated everywhere
- With so many information generating devices the main data bottleneck is becoming people's ability to distil meaning from the 'ocean' of data

EXTRACTING KNOWLEDGE FROM DATA WILL GENERATE VALUE

- As this 'ocean' of data will grow, managing it to extract knowledge will become increasingly important
- Organizations that excel in extracting the most knowledge from their data will remain competitive, and be better prepared for the marketplace of the future





THE DATA EXPLOSION

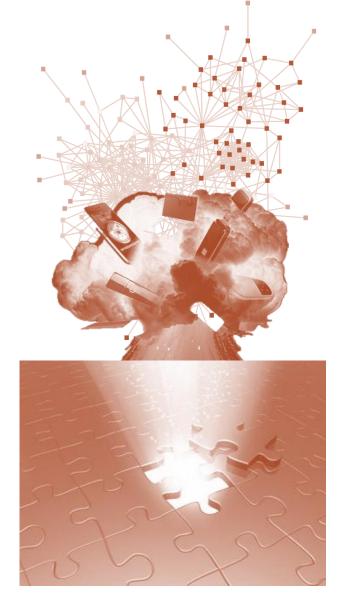
THE QUANTITY OF DATA IS GROWING

- The proliferation of web, mobile, geo, and social media technologies are driving an unprecedented expansion of data quantity
- As the amount of data grows, so are the data processing and data storage capabilities, opening tremendous opportunities to leverage this data in innovative ways

SEIZING THIS AS AN OPPORTUNITY IS KEY

- The amount and types of data in this explosion present a tremendous challenge for businesses, but if managed properly, this challenge can transform into a great opportunity ¹
- The best run businesses are leveraging the data explosion to their advantage by exploiting the gained knowledge to lead the competition in profits and in growth ¹





STRATEGIC DATA IS ESSENTIAL FOR SUCCESS

WHAT IS STRATEGIC DATA

- ✓ Not all data in the organization is strategic
- Strategic Data is data that drives value or enables the delivery of a strategy

WHY IS IT ESSENTIAL FOR SUCCESS

- To drive value organizations need to identify their strategic data and know how to use it
- Using effective management methods they need to be able to accurately deliver the right strategic data, to the right person, at the right time
- This type of context specific data becomes very valuable information when it reaches the right personnel who can then action it into winning strategic decisions







DATA MANAGEMENT UNLOCKS THE VALUE

Discover the gap between current strategic data value, and potential strategic data value

Develop customised frameworks that advance your data maturity and align your data value to your business and customer strategies

Deploy infrastructure and processes that enhance the data asset and allow the organization to add context to the data in order to extract its value driving insights





HOW DATA MANAGEMENT UNLOCKS VALUE

HARD VALUE

- Reduces communication returns
- Delivers improved efficiencies and reduced costs across data processing activity
- Reduces analyst work load by removing activity associated with data preparation
- Minimises data processing failures by managing quality upstream
- Data can be packaged and sold to partners and suppliers creating new revenue streams
- Reduction in the storage of redundant data by aligning owners around what data is important
- Improves data related project delivery by reducing data preparation activity

SOFT VALUE

- Enabler to a majority of business processes and decision making
- Reduces legislative risk
- Reduces activity required to explain the differences in business KPI's
- Ensures all key decision makers are using the same information to assess business performance
- Aligns the business across a set of key performance measures associated with data
- Establishes ownership of data subject areas to aid decision making and progress
- Builds trust of the information sources available within the organization



IGNORE DATA MANAGEMENT AT YOUR PERIL

"Greenspan, Cox tell Congress that bad data hurt Wall Street's computer models"

Computerworld

"The cost of bad data could be as much as 15 to 20 percent of corporate operating revenues"

"TJX paying \$10 million (US) for data breach investigations"

TechTarget



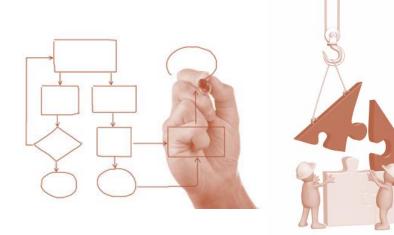
IMPLEMENTATION FUNDAMENTALS

IMPLEMENTATION IS DIFFICULT

- The appropriate data management methods cannot succeed without proper planning and furthermore take time to implement
- To be successful in data management an optimization of databases and processes may be required
- Data processes need to be assessed and some may need modification

THE ORGANIZATION NEEDS TO GET ON BOARD

- Corporate culture needs to shift into a data-proactive mode, where resources use their strategic objectives to improve the data asset
- For strategic data management to succeed it requires executive sponsorship and committed leadership









THE DATA MANAGEMENT TOOLKIT

#1 - PEOPLE

- ✓ Corporate Executive
- ✓ Data Council comprised of IT and Business
- ✓ Data Steward responsible for all data related activities
- ✓ Data Management Teams from IT and Business

#2 - PROCESSES

- ✓ Governance
- ✓ Data Maintenance
- ✓ Measurement

#3 - SOFTWARE

- ✓ Databases
- ✓ DataFlux
- ✓ Metadata and/or Master Data Management
- ✓ SAS
- **#4 HARDWARE TO SUPPORT THE SOFTWARE**



DATA MANAGEMENT ACTIVITIES

#1 - BEGIN WITH THE END IN MIND

- Measure the existing value of data to the organization
- Understand the current capabilities to manage data
- Develop action plans, including 'Test and Learn' approach
- Plan for Disaster
- Set your measurement and track it (scorecards)

#2 - EXECUTION

- ✓ Execute on your plans
- Measure the results and build the scorecards
- Deploy Test and Learn

#3 - ENHANCE THE DATA ENVIRONMENT

- Procure additional/new data
- ✓ Add new processes (i.e. in database processing, triggers)
- ✓ Tune the environment for optimal throughput
- Trim or archive old data to keep the environment 'fresh'



EXAMPLE SCORECARD

Objective	Sponsor	How	Measurement	Target
Master Data Management				
To obtain a single version of the truth	CIO	To enforce a master set of business rules for each key data subject area	For any subject area that is stored in more than a single system a quarterly comparison of value and volume metrics are run	Results within 5% across systems
Data Quality				
Data quality to be made part of everyday activity	CTO/CIO/CMO/COO	Develop a set of data quality processes that are run and monitored for the next 6 months	At least 10% of activity recorded against DQ timesheet codes	10%of team activity
Legislation & Data Protection				
Reduce the number of customer complaints associated with customer communication processes	CEO/CMO	Define and enforce new complaint management processes and monitoring	Number of complaints as a % of total customer communications	10% reduction in customer complaint volumes



DATA MANAGEMENT EXECUTION ACTIVITIES

#1 - DATA AUDITING

- ✓ Stored Processes whose purpose is to profile data from source
- ✓ Source data should be compared to existing Master Data for validation
- Exceptions can be cleansed or reported as preferred
- Measure exception versus accepted data

#2 - CLEANSING AND STANDARDIZATION

- ✓ Standardize the Source data based upon rules defined by the Data Council or Data Steward
- ✓ Use Cleansing Routines built at the database level or via specialized software (i.e. DataFlux)
- ✓ Deploy Business Rules in ETL Processes (i.e. SAS DI Studio) to make data more 'fit for purpose'

#3 - TUNING AND OPTIMIZATION

- ✓ Enhance repositories (Metadata or MDM) to enable greater standardization across the corporation
- ✓ Use profiled data to determine optimal column attributes (signed versus unsigned integer keys)
- ✓ Fine tune queries using user supplied feedback and examples
- ✓ Deploy new structures or subject areas within the database to optimize use



DATA MANAGEMENT EXECUTION ACTIVITIES

#4 - REPORTING

- Ensure that scorecards are updated and reviewed
- Provide feedback to Data Council
- Champion data management at any opportunity

#5 - CELEBRATE YOUR SUCCESSES



QUESTIONS?

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THANK YOU!

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