



AI for Data

Data Capital Management @ Scale with AI

Executive Summary

Data has become a crucial component for helping companies grow and reinvent their businesses. Organizations now find themselves in a new position where they must use data and AI to responsibly fuel their innovation, business models, and partnerships.

As many foundational data capabilities are typically human-led and expensive to scale, AI can be applied to tasks to increase automation and precision. We are helping our clients to be more data-driven and data-native by aligning their data and business strategies.



Background: Data as a new form of Capital

Data as an asset is not a new idea, but more and more organizations are recognizing how critical data is to their present and future success. Many are starting to embrace the idea that data should be treated as another form of capital, just like human capital, financial capital, or intellectual capital.

Optimizing data capital is essential for businesses to survive and thrive in the digital age and reinvent their businesses to be more data-driven enterprises. It forces CEOs to be more strategic about acquiring, growing, refining, safeguarding, and deploying their data as they would be for other forms of enterprise capital.

Data must be high-quality, trusted, easy-to-use, and secure to maximize its use as an asset and minimize its potential liability. Data capital management requires strength in the following areas:

Data Supply Chain

Ensuring you have the right data repositories and data pipelines to meet business needs. Raw and curated data is available for data scientists, while shaped data is available for business consumers and operational systems.

Data Management

Sustaining high-quality, trusted data at scale. Requires excellence in data quality management, master data management, and data lineage tracking.

Data Governance

Requires competency in managing business metadata (e.g. data definitions) and the design of cross-functional models of collaboration around data.



The need to scale Data Capital Management

The way companies have traditionally operated their data organizations data is human-led and not easily scalable. This is where artificial intelligence (AI) comes into play. AI increases scale in data capital management—lowering costs while improving quality overall investments in data and AI.

These foundational data capabilities are traditionally human-led and expensive to scale



Analysts & SMEs

- Define business terms
- Determine business relationships between terms (data models)
- Define business rules for data transformation
- Define Data Quality rules & thresholds



Data Engineers

- Configure tools to support movement of data
- Write code to implement business rules (e.g., transformation, quality)
- Configure purpose-built data repositories



Quality Experts

- Monitor & respond to data processing issues with Data Engineers
- Monitor & respond to data quality issues with Business SMEs & Data Stewards



Data Stewards

- Catalog data & definitions
- Identify & maintain data lineage
- Participate in data remediation efforts
- Assist in creation & maintenance of data assets

Scaling Data Capital Management with AI

AI is being used throughout all three pillars of Data Capital Management:

Data Supply Chain

Unstructured Data Interpretation



Data Acquisition

Improve the business value and accuracy of data science models by analyzing text, images, voice, and other unstructured data types.

Automatic Data Linking



Data Architecture

Linking of data elements and assets automatically, accelerating Data Vault 2.0 and other leading data architectural patterns.

Data Management

Self-Healing Data



Data Quality Management

Sense data quality issues and recommend changes based on pattern recognition, reduce cost of data operations and improve data quality.

Autonomous Database



Database Management

Next-gen database technology leveraging AI to automate manual, administrative tasks, and reduce time and cost.

Data Governance

Auto-labeling Data Fingerprinting



Metadata Management

Automatically tag data sets and data elements with relevant business metadata to provide a richer context.

Responsible Data & AI



Data Ethics & Compliance

Identifies bias in the data underlying machine learning models to prevent unbalanced representation. Increase responsibility in AI and data, mitigate reputational issues.

Guiding your AI for Data journey

AI increases scale in data capital management—lowering costs while improving quality.

- Reducing time of data build
- Reducing cost of data build and operations
- Increasing quality of data

AI can transform your data capital management. We tend to see organizations follow a journey of AI for Data similar to what is illustrated below.

The AI for Data journey



Case study



The Challenge:

A global entertainment company sought to reduce duplicate customer records due to impact on campaign costs and precision.



The Solution:

We helped the client build ML & NLP models to check data for consistency and flag duplicates/issues for remediation.



The Outcome:

























The client garnered improved customer data—lowering its marketing costs and enhancing overall experience.



How pre-built AI for Data solutions can accelerate your journey

Companies don't need to build these capabilities themselves. Accenture has its own AI for Data Suite for supporting and accelerating data engineering quality, master data management, metadata tagging, and governance across the stack. And, leading third-party vendors are incorporating AI into their commercial products—including Informatica, Tamr, Alation, and Collibra.

AI for Data Products and Accelerators

 Data Supply Chain	accenture	 Informatica	 tamr	 Infrd	 ORACLE	 talend
 Data Quality Management	accenture	 Informatica	 IBM	 talend		
 Master Data Management	accenture	 Informatica	 tamr	 IBM	 SAP	
 Metadata Management	accenture	 Informatica	 Alation	 collibra	 IBM	
 Data Governance	accenture	 Informatica	 Alation	 collibra		

How Accenture can help

Accenture guides our clients to realize their full potential by integrating data capital management, AI, and automation on cloud through transformative technologies, adaptive

Data is a new form of strategic capital. The time is now to introduce intelligent machine technology—using AI to accelerate the speed, decrease the cost, and create systems that optimize data workloads and quality.

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