

## AI-Driven Retail Information Governance Tackles Data Challenges in the Omnichannel World



Today's retailers depend on data to improve decision making, increase efficiency and drive customer engagement. However, as [omnichannel marketing](#) increasingly dominates the retail space, businesses need to adjust their data strategies accordingly. AI-enhanced tools allow retailers to strengthen retail information governance and optimize data value.

For example, IBM offers AI governance solutions to help retailers ensure their AI models are transparent, compliant, and trustworthy. And Vue.ai, a retail automation platform, uses AI to optimize demand forecasting and supply chain management by processing large volumes of data.

Information governance involves managing the quality, security, privacy, and accessibility of retail data. Properly governed data produces important customer insights, enabling retailers to build customer loyalty and improve marketing efforts. Information governance also addresses challenges such as inventory management, customer evaluation, and [regulatory compliance](#).

### Old Data Strategies No Longer Work

The retail industry has changed dramatically in the past decade. Data strategies built for brick-and-mortar stores no longer suffice. Driven by the convenience of e-commerce, the pandemic and rapid technological advances, most retailers now operate in an omnichannel world. This presents both challenges and opportunities.

In the first place, omnichannel retailing means that merchants gather important data from a complex assortment of data sources. These include websites, social media, mobile devices, in-store sensors, and third-party vendors. While this data offers valuable insights and necessary information, it also introduces significant risk.

For instance, the wide variety of data sources opens new attack vectors that hackers can exploit to gain access to sensitive data. It also makes it more difficult for businesses to ensure [data privacy](#) in an increasingly regulated environment. And the diversity of data sources and data types increases the difficulty of ensuring data quality and consistency.

To truly leverage the power of retail data, companies need to integrate and harmonize data from complex sources. Additionally, they must maximize data quality, security and privacy while ensuring that decision makers have the access they need. With so much data, these challenges prove difficult to meet. Fortunately, AI-enhanced information governance can help.



## Identify Redundant, Outdated and Incorrect Data

A retail company brings in data through various departments. For example, customer data may enter the organization through the company website, as well as through customer support, sales, and marketing. Thus, the same customer may have multiple files within the system. The files will contain some duplicate data, as well as outdated information.

Duplicate or incorrect data can negatively impact inventory management, demand forecasting, pricing strategies, and customer satisfaction. Resolving these problems manually in a large database can prove infeasible. However, AI provides tools to automate the process.

For instance, using fuzzy matching techniques AI tools can learn to identify and correct likely duplicates. Additionally, data cleansing tools automate the process of filling in missing values, standardizing formats, and validating data sources.

AI can also help retailers optimize their data storage and retention, reducing costs and risks associated with storing unnecessary or outdated data. For example, using AI, retailers can automatically classify and archive data based on its value or sensitivity. AI tools can then delete or anonymize data that is no longer needed.

## Build Unified View of Data

Decision makers need both a big picture view of enterprise data and the ability to drill down to the granular level. This requires understanding where data lives throughout the company. AI-driven tools scan data sources across the enterprise to discover relevant data and create a comprehensive, dynamic data map.

Again, using AI, strategists can then leverage data analytics to extract meaningful patterns and insights from the data. They can also automate the process of presenting these insights in intuitive and interactive dashboards and reports.



## Improve Data Security and Compliance

Retail companies gather and manage immense amounts of data. Much of that data includes personal and financial information that can prove both an asset and an extreme liability. Retailers have a legal and ethical obligation to protect that data from unauthorized access and maintain the privacy of the individuals it concerns.



AI allows retailers to manage [data security and regulatory compliance](#) at scale. For example, using pattern matching and machine learning, AI-enabled tools such as [Microsoft Purview](#) can classify data much more rapidly and accurately than humans can.

With data tagged as sensitive or critical, AI automates the process of applying appropriate policies. For instance, data administrators can automate the enforcement of policies to restrict external sharing based on user role or data classification.

## Explore Retail Information Governance Innovations

AI and machine learning offer powerful solutions to retail information governance challenges. To explore these opportunities further, contact the [information governance experts](#) at Messaging Architects.