

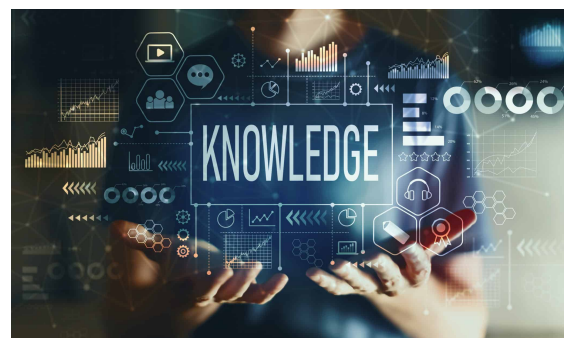
The Foundation of Data Fabrics and AI: Semantic Knowledge Graphs



Dr. Jans Aasman, CEO, Franz Inc.

Data management agility has become of key importance to organizations as the amount and complexity of data continues to increase, along with the desire to avoid creating new data silos. The concept of creating a 'data fabric' as an agile design concept has been proposed by leading analysts, such as Mark Beyer, Distinguished VP Analyst at Gartner. "The emerging design concept called 'data fabric' can be a robust solution to ever present-day management challenges, such as the high-cost and low-value of data integration cycles, frequent maintenance of earlier integrations, the rising demand for real-time and event-driven data sharing, and more," says Mark Beyer.

As a data fabric readily connects and provides singular access to all data sources distributed throughout the enterprise, semantic knowledge graphs provide the foundation that makes this design possible. Semantic knowledge graphs and aspects of AI are necessary for the data fabric architecture to work. According to Gartner, "The semantic layer of the knowledge graph makes it more intuitive and easy to interpret, making the analysis easy for D&A leaders. It adds depth and meaning to the data usage and content graph, allowing AI/ML algorithms to use the information for analytics and other operational use cases." In this respect, graph applications are the enabler of both data fabrics and the AI that supports them.



Data fabrics involve additional tooling like respective layers for data integration and run-time orchestration, in addition to active metadata management. Nonetheless, these capabilities would fail to properly function without the semantic layer, and data cataloging value, of semantic knowledge graphs that are foundational to realizing this grand data management vision.

Read the full article at [Data Science Central](#).