metaphacts

Drive Business Value with Your Knowledge Graph

Findable **A**ccessible **I**nteroperable **R**eusable

Your Knowledge Graph Platform

metaphactory

KNOWLEDGE DEMOCRATIZATION

SEMANTIC KNOWLEDGE MODELING

LOW-CODE, MODEL-DRIVEN APP BUILDING

+   +

REASONING & ANALYTICS LAYER

ONTOLOGY LAYER

VOCABULARY LAYER

INSTANCE DATA LAYER

SEMANTIC MODELS - THE BRAINS BEHIND EXPLAINABLE & TRUSTWORTHY DATA-DRIVEN BUSINESS DECISIONS

Semantic models, or ontologies, are key to building powerful knowledge graphs that help organizations drive explainable and trustworthy business decisions. They enrich existing data with context and meaning that humans and machines can interpret so that domain-specific knowledge can be utilized across the organization or by machines and AI applications.

Semantic models:
» **Bring meaning to data** through the formalization of precise definitions of data and logical connections between entities
» **Standardize and classify data** by tying in hierarchical vocabularies and taxonomies
» **Enrich data with context** by connecting additional metadata, provenance information, and governance rules

Without a semantic model, a knowledge graph is simply a graph structure that visualizes interlinked data. The added contextual richness promotes comprehensive analysis and knowledge discovery, creation and sharing that was previously unachievable. It provides the real, curated knowledge behind **symbolic AI** solutions that can be used to complement **generative AI** solutions with a comprehensive layer of trust, explainability and precision to Machine Learning and Large Language Models.

Semantic Knowledge Modeling with metaphactory

metaphactory allows you to capture explicit, domain-specific knowledge across functional and use case boundaries.

Knowledge becomes a shared asset that is captured and published through one central portal and can be consumed by all relevant people, processes or tools in your enterprise.

The best part about it? metaphactory's visual and user-friendly interface allows you to actively involve SMEs and business users in the modeling process and enables both technical and non-technical users to contribute.

This can help you democratize domain knowledge that was previously hidden in experts' minds, documents, or hard-coded

into applications. You can allow this knowledge to actively drive explainable and trustworthy business decisions.

Leveraging Semantic Models for Knowledge Management and Discovery

metaphactory supports the management of additional assets such as hierarchical vocabularies and taxonomies, data catalogs, and instance data, and the tie-in of semantic models with these assets to enable:
» **Alignment within and between vocabularies** by utilizing relation definitions from the ontology to capture more complex and multiple hierarchies, e.g., *part of* and functional relations in the same vocabulary between terms
» **Curation of instance data and metadata**, driven and guided by the underlying ontology via semantic forms, a visual canvas, or a combination thereof, incl. support for clear governance and guardrails to allow for simple and easy data curation in the form of annotations, metadata curation, etc.
» **Building ontology-driven search, discovery and visualization interfaces** that utilize relations and properties in the graph for powering facets, visually formulating queries or guiding users along paths in the graph

Combining the Power of Symbolic AI and Generative AI

Explicit knowledge mapped to your semantic model can be enriched with knowledge learned or derived via machine learning, reasoning or other techniques. By combining the best of symbolic AI and generative AI, metaphactory empowers you to utilize AI-generated insights in your business decisions, while ensuring that these insights can be trusted, traced and explained as they are grounded in the domain expertise your team brings to the table.

By additionally enriching your knowledge model with information on decision models, metaphactory can enable your decision makers to move from repetitive daily decisions to an automated decision intelligence solution – a solution that not only provides deep, contextual analytics but also decision support and, ultimately, continuous intelligence and decision automation.

EXAMPLE USE CASES

Pharma & Life Sciences

- Target Discovery
- Clinical Trial Scoping
- Drug Development & Repurposing
- Clinical Analytics Dashboard

Finance & Insurance

- Financial Transparency
- Risk Management
- Fraud Detection
- Customer 360°
- Data Governance & Data Lineage

Engineering & Manufacturing

- Digital Twin
- Smart Manufacturing
- EIA - Semantic Layer   Modeling
- Configuration Management
- Spare Parts Management
- Product Lifecycle Management

Cultural Heritage & Humanities

- Knowledge Publishing
- Cultural Heritage Archives
- Data Curation & Management

FROM IDEA TO PRODUCTION

Proof of Concept
1-2 Weeks

MVP
3-4 Weeks

Production
1-2 Months

GET STARTED

4–week metaphactory trial &
self–guided tutorial
» https://metaphacts.com/tutorial

GET IN TOUCH

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