AllegroGraph Named "2023 Best Knowledge Graph" by KMWorld Readers' Choice

Franz Inc., is proud to announce it has been named the "Best Knowledge Graph" in the 2023 KMWorld Readers' Choice Award voting.

According to KMWorld, Technologies such as knowledge graphs, cloud computing and storage, data mesh and data fabric, chatbots, natural language processing, machine learning, and, most recently, generative AI (GenAI) have come to the forefront in our attempts to manage the myriad formats and knowledge silos rampant within organizations.

Business practices are changing fast, and so are knowledge management offerings. To put the spotlight on the innovative and dependable products and services that KMWorld readers depend on, the publication presents the KMWorld Readers' Choice Award winners. After all, who best to know what products serve them best as they wrestle with so many changes happening so quickly?

In the November 2023 issue, KMWorld magazine announces the winners of the 2023 KMWorld Readers' Choice Awards. The categories for competition were wide-ranging. In all, there were 13 areas in which products and technologies could be nominated and ultimately voted upon. They include business process management, cognitive computing and AI, customer service and support, e-discovery, knowledge graphs, text analytics, and NLP.

With the diverse array of knowledge management products, services, and technologies to consider, and the stakes getting higher for information-driven success, it can be challenging to make the right choices. There are many ways to learn more

about what is available, including white papers, research reports, and webinars, as well as consulting with experts and peers. We hope the KMWorld Readers' Choice Awards list provides an additional resource to help make the job of identifying solutions to investigate easier.

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According to KMWorld, Global enterprises are making substantial investments in developing innovative approaches and strategies for competing successfully in a knowledge-based market. Such innovative practices, resulting in the development of knowledge-intensive products and services, are prevalent among enterprises in North America and Europe.

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IEEE — Entity Event Knowledge Graph for Powerful Health Informatics

As part of Franz's participation in the IEEE — ICHI conference, our paper has been published and is available from the IEEE Website.



ICHI 2022 is a premier community forum concerned with the application of computer science, information science, data

science, and informatics principles, as well as information technology, and communication science and technology to address problems and support research in healthcare, medicine, life science, public health, and everyday wellness.

Franz Inc. presented on June 14th — **Entity Event Knowledge Graph for Powerful Health Informatics**

Download Franz's IEEE Publication — Entity Event Knowledge Graph for Powerful Health Informatics.

Conference Website

The Foundation of Data Fabrics and AI: Semantic Knowledge Graphs



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.

IEEE - ICHI - Healthcare Informatics



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Ω Industry Session

s IMI-CDE: an interactive interface for collaborative mapping of study variables to common data elements

Shiqiang Tao, Wei-Chun Chou, Jianfu Li, Jingcheng Du, Pritham Ram, Rashmie Abeysinghe, Xiaoqian Jiang, Peter W Rose, Lucile Biranda da Live Yu and Guo-Qiang Zhang

s Entity Event Knowledge Graph for Powerful Health Informatics

Ravi Bajracharya, Richard Wallace, Jans Aasman and Parsa Mirhaji

- S RWD Analytics Engineering, Draging the Gap between IT and Data Science

 Andrew Nguyen
- S LANN: an integrated online annotation tool for information extraction

 Jingqi Wang, Yaoyun Zhang, Bin Lin, Huy Anh Pham, Long He, Jingcheng Du and Frank Manion
- s Improving healthcare workforce efficiency using machine learning and predictive analytics

 Daniel Quest
- S RecordTime An Internally-Developed Web Application to Ease the Pain of Reviewing PDF Medical Records

Kevin Peterson

Linguistic Reduction and Knowledge Graphs for Next-Gen

Chatbots

Dr. Jans Aasman and Dr. Richard Wallace were recently published in AIThority.



Chatbots are dynamic agents with the express capability to engage in conversational interactions. By applying innovative linguistic reduction rules to user utterances, we empower chatbots to

reduce any statement or sentence into its most basic form so bots can swiftly understand it and appropriately respond.

The relationship between linguistic reduction rules and chatbots for natural language technology applications is two-fold. First, this pairing drastically simplifies chatbot applications so that no matter what text or speech the chatbot encounters, they can readily understand and respond to it. Secondly, by adding elements of knowledge graphs and taxonomies to this tandem, the resulting combination can make chatbots more useful than any current commercial offerings—including Alexa and Siri.

Reductions Simplify Language

The general concept behind this symbolic reasoning approach is that when people speak or write they use more words than necessary to produce the simplest logical statement they're conveying. For example, there are numerous ways to ask someone his or her name, including "Could you tell me your name, please?"

Reduction rules would reduce this simple question to "What is your name?", so bots can quickly comprehend its meaning, then use additional techniques to answer it.

Although this example seems trivial, it illustrates the basic formula that's integral for revamping a host of business use cases from analyzing legal documents to forms for regulatory compliance and heightening call center interactions—or any other NLP application.

Read the full article at AIThority.

AllegroGraph Named 2022 "Trend Setter"

AllegroGraph Named 2022 "Trend Setter" by Database Trends and Applications

AllegroGraph has been named a 2022 Trend Setting Product by Database Trends and Applications. Additionally, AllegroGraph was recently named "Best Knowledge Graph" by KMWorld Readers' Choice award voting.



"The world is changing rapidly, and so are enterprise data requirements. Whether it is anticipating supply chain

problems, addressing customer concerns with agility, or identifying new opportunities and pouncing quickly, the ability to achieve a comprehensive view of all available information for real-time decision making has become a strong requirement," said Thomas Hogan, Group Publisher of Database Trends and Applications. "That is why it is more important than ever to identify products and services that help to deliver results. This list focuses on products that represent a commitment to innovation and provide organizations with tools to address rapidly evolving market requirements."

"Franz Inc. is continually innovating and we are honored to receive this acknowledgement for our efforts in setting the pace for Knowledge Graph Solutions," said Dr. Jans Aasman, CEO, Franz Inc. "We are seeing demand for Intelligent Data Fabrics take off across industries along with recognition from top technology analyst firms that Knowledge Graphs provide the critical foundation for Data Fabric solutions. AllegroGraph with FedShard uniquely provides companies with the foundational environment for delivering Graph based AI solutions with the ability to continually enrich and contextualize the understanding of data."

Read more about the award.

Franz's AllegroGraph Named "Best Knowledge Graph" by KMWorld Readers' Choice

AllegroGraph also wins Finalist position for "Best Cognitive Computing and AI Platform".

Franz Inc., is proud to announce it has been named the "Best Knowledge Graph" in the 2021 KMWorld Readers' Choice Award voting. Additionally, AllegroGraph was considered a "Finalist" in the category of Best Cognitive Computing and AI platforms for the Readers' Choice awards.

According to KMWorld, the world of knowledge management continues to expand with the steady influx and evolution of innovative products and technologies to help organizations extract the right information for use by the right people at the right time. The value of knowledge management solutions

and services is reflected in growth projections for the global knowledge management market, which was valued at about \$206.9 billion in 2016 and is expected to reach more than \$1,232 billion by 2025, representing a compound annual growth rate of more than 22%, according to Zion Market Research.



In this November issue, KMWorld magazine announces the winners of the 2021 KMWorld Readers' Choice Awards. The categories for competition were wideranging. In all, there were 14 areas in which

products and technologies could be nominated and ultimately voted upon. They include business process management, cognitive computing and AI, customer service and support, ediscovery, knowledge graphs, text analytics and NLP.

"As the stakes get higher for information-driven successes, businesses must make technology decisions from an increasingly diverse array of knowledge management offerings," said Tom Hogan, Group Publisher at KMWorld. "The Readers' Choice Awards put the spotlight on innovative and dependable solutions and services that can help companies solve pressing challenges and take advantage of new opportunities."

"Franz Inc. is continually innovating and we are honored to receive this acknowledgement for our efforts in setting the pace for Knowledge Graph Solutions," said Dr. Jans Aasman, CEO, Franz Inc. "We are seeing demand for Intelligent Data Fabrics take off across industries along with recognition from top technology analyst firms that Knowledge Graphs provide the critical foundation for Data Fabric solutions. AllegroGraph with FedShard uniquely provides companies with the foundational environment for delivering Graph based AI solutions with the ability to continually enrich and

contextualize the understanding of data."

AllegroGraph provides organizations with essential Knowledge Graph solutions, including Graph Neural Networks, Graph Virtualization, Apache Spark graph analytics, and streaming graph pipelines. These capabilities exemplify AllegroGraph's leadership in empowering data analytics professionals to derive business value out of Knowledge Graphs.

Fuse Graph Neural Networks with Semantic Reasoning to Produce Complimentary Predictions

Organizations can combine GNN reasoning capabilities with classic semantic inferencing in Knowledge Graphs to reach the next level AI and predict any business event based on context at scale.

The ability for machines to reason — not just identify patterns in massive data amounts, but make rule or logic based inferences on domain specific knowledge — is foundational to Artificial Intelligence. The growing momentum around Neuro-Symbolic AI and the increasing reliance on Graph Analytics demonstrate how important these developments are for the enterprise.

Combining AI's symbolic knowledge processing with its statistical branch (typified by machine learning) produces the best prescriptive outcomes, delivers total AI, and is swiftly becoming necessary to tackle enterprise scale applications of

mission-critical processes like foretelling equipment failure, optimizing healthcare treatment, and maximizing customer relationships.

Graph Neural Networks (GNN) exemplify the confluence of machine learning and AI reasoning. Their underlying graph capabilities are ideal for applying machine learning's advanced pattern recognition to high-dimensional, non-Euclidian datasets that are too complex for other machine learning types.

Organizations get two forms of reasoning in one framework by fusing GNN reasoning capabilities around relationship predictions, entity classifications, and graph clustering, with classic semantic inferencing available in Knowledge Graphs. Automatically mixing and matching these two types of reasoning is next level AI and is the basis for predicting any business event based on context at scale.

Read the Full Article at Towards Data Science.

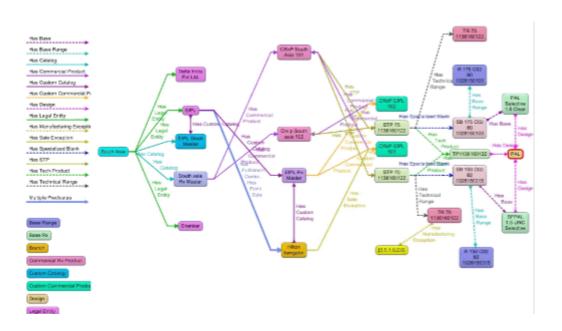
Essilor's Knowledge Graph for Global Supply Chain Risk Management

Essilor, part of the EssilorLuxottica SA group (which sells global brands such as Ray-Ban, Oakley and Varilux among many others), is a French-based vertically integrated, multinational ophthalmic optics company and the world leader in the design, manufacture and distribution of lenses to correct or protect eyesight. Including sundries, Essilor

carries hundreds of thousands of stock and finished products that are fabricated at many different labs in different countries and are sold all over the world.

"Tracking product packaging and fulfilling orders efficiently had always been difficult in the past," said Mel Yuson, Director Enterprise Architecture, Essilor AMERA. "We tried to modernize our product tracking system with 3rd party software solutions and in-house relational database applications but without success because relational databases lack the ability to model complex relationships. We needed the freedom of a schemaless graph database, like Franz's AllegroGraph, which uniquely provides us the flexibility to evolve our data model and seamlessly add new applications to address rapid growth and changing needs at Essilor."

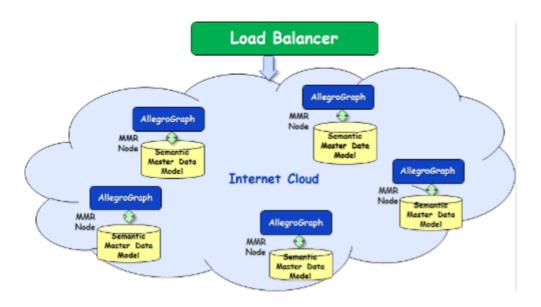
Here is a sliver of the complex data model of the Essilor application viewed in Gruff.



"We developed and deployed to production our first AllegroGraph based application in only a few months after engaging Franz," said Yuson. "We found AllegroGraph's W3C standard SPARQL query language is much easier to use than SQL but most importantly, AllegroGraph is a very stable and highly scalable platform with its Multi-Master Replication cluster feature. Today, we deploy several AllegroGraph servers in the

cloud, which easily handle 100,000 concurrent queries per minute at peak hours. We are very pleased with our partnership with Franz Inc. and are believers in the power of Semantic Graph Database technology."

System architecture at Essilor



Summary

Essilor's success in deploying production systems with AllegroGraph has made them a firm believer in the power of semantic graph database technology.

Read more in our Supply Chain Risk Management white paper.

Read the Supply and Demand Chain Risk Management Article.