Semantic Graph Analytics Can Propel The Advent of 'Personalized Medicine'

Analyzing massive stores of medical data can be overwhelming. Still, it's an important mission: data analysis could provide new, more tailored treatments. Terms like "personalized medicine," "precision medicine," and "individualized medicine" all refer to a data-driven approach toward to goal of customizing medical treatment for every patient's unique genetic and molecular composition. However noble, that goal is somewhat limited.

Personalized medicine, often described as a way to provide "the right patient with the right drug at the right dose at the right time," in fact goes beyond custom treatment — it encompasses the entire healthcare process, from prevention, to treatment, to disease management, and considers each patient as an individual.

Read the full article:

Enriching Property Graphs with Relationship

Suppose we are creating a large graph database that contains information about payments between companies. A graph database analyst might start off modeling the payments as shown in

Figure 1, which expresses who paid whom. (All graph figures in this article were produced using Gruff, a tool for visualizing graph databases, operating over the AllegroGraph graph database system.)

Figure 1: A Graph of a Payment

This seems straightforward enough. Now suppose that we want to record more information about payments, such as the amount of the payment, the means of payment (direct debit, e-check, wire, etc.), the date and time when the payment occurred, and so forth. A traditional property graph approach places these properties on the edge that connects the payor and payee nodes, as shown in Figure 2.
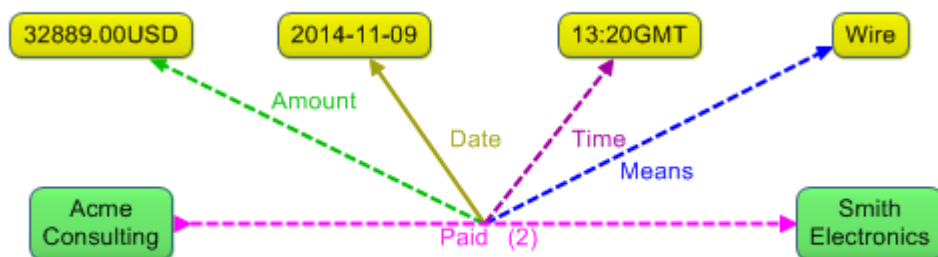

Figure 2: Attaching Properties to an Edge

Read the full blog post at DB-Engines

AllegroGraph Recognized as

Best in Semantic Web Technology – USA & Leader in Graph Database Products

Franz's AllegroGraph Fueling Rapid Growth in Graph Database Category

OAKLAND, Calif. – February 3, 2016 – Franz Inc., an early innovator in Artificial Intelligence (AI) and leading supplier of Semantic Graph Database technology has been recognized As "Best in Semantic Web Technology – USA & Leader in Graph Database Products" by Corporate America Software and Technology.

"At Corporate America, it's our priority to showcase prominent professionals who are excelling in their industry and outperforming their competitors," said Hannah Stevenson, Managing Group Editor, AI Global Media. "Franz Inc. have a reputation for innovation, utilizing their expert knowledge to create complex and exciting Graph Database solutions. Franz's unique platforms offer highly scalable technologies for solving complex Big Data challenges."

Corporate America is the definitive magazine for CEOs, top tier management and key decision makers across the US. Created to inform, influence, and shape the corporate conversation across the nation through high quality editorial, in-depth research and an experienced and dedicated network of advisers, Corporate America provides its readership with the most authoritative and current analysis of the major changes effecting the corporate landscape, and the latest deals and topical issues dominating the corporate universe. A multifaceted program, the awards are focused on rewarding excellence across all areas of the technology and software industries and all nominees are closely scrutinized to ensure

that only the most deserving receive Corporate America's prestigious awards.

"We are excited that Graph Databases, like AllegroGraph, have garnered the attention they deserve by Enterprise customers looking to innovate," said Dr. Jans Aasman, CEO, Franz Inc. "In today's data-driven environments, the ability to quickly analyze data from diverse sources is becoming critical. We are already seeing how Semantic Graph Databases with predictive analytics can help transform healthcare through Precision Medicine and make us safer through Insider Threat Detection."

"Because it (AllegroGraph) is a Graph database, it can store pretty much any kind of data and query it, not just in the time-worn relational fashion, but also in a graphical manner — carving out graphical maps of relationships. And on top of that, it can apply semantics to deduce as-yet-undiscovered knowledge from the data. Its capabilities are very broad, and they provide a glimpse of the shape of things to come," added Bloor. stated Robin Bloor, co-founder and Chief Analyst of The Bloor Group.

"Information has always existed everywhere but has often been isolated, incomplete, unavailable or unintelligible," according to Gartner. "Advances in semantic tools such as graph databases as well as other emerging data classification and information analysis techniques will bring meaning to the often chaotic deluge of information." (Source: Gartner Identifies the Top Strategic Technology Trends for 2016.)

A recent Forrester Research report stated, "Graph databases are a powerful optimized technology that link billions of pieces of connected data to help create new sources of value for customers and increase operational agility for customer service. Because graph databases track connections among entities and offer links to get more detailed information, they are well-suited for scenarios in which relationships are important, such as cybersecurity, social network analysis,

eCommerce recommendations, dependence analysis, and predictive analytics." (Source: Forrester Research, Market Overview: Graph Databases, May 28, 2015)

Franz's recent announcement of the first Semantic Data Lake (SDL) for Healthcare, which was created in collaboration with Montefiore Medical Center (the eighth largest hospital group in the U.S.), Intel, Cloudera and Cisco. The SDL for Healthcare is a scalable and extensible Healthcare platform designed for Accountable Care and Personalized Medicine initiatives. AllegroGraph has played a critical role in the Semantic Data Lake for Healthcare, by facilitating integration of complex information for basic science, clinical, population, community, environmental, behavioral and wellness research data to enable knowledge-based analytics, classification, pattern recognition, predictive modeling and simulations at scale.

About Corporate America

Corporate America is more than just a magazine. Alongside our quarterly publication, we also produce a website that is regularly updated with the latest news, features, opinion and comment, again in conjunction with a host of top-level advisers, experts and businesspeople, and throughout the year, you'll also get your chance to participate in our highly regarded awards programs, designed to pay tribute to the finest firms and individuals on the American business landscape.

About AllegroGraph

Unlike traditional relational databases or Property Graph Databases, AllegroGraph employs semantic graph technologies that process data with contextual and conceptual intelligence. AllegroGraph is able run queries of unprecedented complexity to support predictive analytics that help organizations make more informed, real-time decisions. AllegroGraph is the first

Graph Database to support analysis across N-dimensions — any conceivable measurement of an object, property or operation. AllegroGraph can analyze temporal (time) and geospatial (location) dimensions relative to any 'event,' such as a disease, drug interaction, genetic combination, biomarkers, observations, image or physical sensors. AllegroGraph is utilized by dozens of the top Fortune 500 companies worldwide.

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Franz's Vice President of Corporate Development to Keynote at the 11th International Knowledge Management in Organizations Conference (KMO 2016)

OAKLAND, Calif. — February 2, 2016 — Franz Inc.'s Vice President of Corporate Development, Dr. Sheng-Chuan Wu, will be a keynote speaker at the 11th International Knowledge Management in Organizations Conference (KMO 2016) this July in Hagen, Germany. Knowledge Management is in the midst of a revolution. Traditional KM approaches have failed to meet the challenges posed by Big Data, mobility, social media, and customer demands. That's because the knowledge critical for customer service is everywhere, and new approaches are required to tap into its value.Continuing the success of the KMO conference series since 2005, the KMO 2016 conference will provide an international communication forum bringing together academia and industry for discussing the progress made and addressing the challenges faced by knowledge management.

Dr. Wu's talk, "Why Knowledge when Data Suffices"

According to the classic knowledge pyramid, we turn the data we collect into information by applying its context. We then

interpret the information to derive knowledge from it. Our efforts on the management of knowledge stem from our belief that knowledge is what provides value to our endeavors. Is this paradigm still true with the explosive growth in Big Data? One of the most obvious examples is Google Translate. Despite employing machine learning on the massive multilingual text data instead of natural language understanding algorithms, Google Translate outperforms traditional natural language processing (NLP) methods when it comes to translation. Medical science is another potential example. Since the sequencing of the human genome in 1996, we have dreamed about treating patients more effectively based on their genomic profile. Such a dream remains elusive due to the complexity of system biology. On the other hand, major progress can be made in "targeted medicine" with machine learning on the massive patient medical data accumulated. In essence, we can uncover ways to directly help patients from the data without precisely knowing how it works exactly. Using Big Data to derive value brings another set of management problems, namely the heterogeneous nature of data sources and taxonomies, the massive volume of data, and the analytic processing requirements. Dr. Wu will discuss all these issues and show some examples at this talk.

About Dr. Wu

Dr. Sheng-Chuan Wu received his Ph.D. in Scientific Computing and Computer Graphics from Cornell University in the US. He has, since graduation, involved in several software companies, including the founding of the first integrated CAD/CAM/CAE company. In the last 20 years, he worked as a senior corporate executive at the leading Artificial Intelligence and Semantic Technology company, Franz Inc in Silicon Valley, with responsibility in application development, marketing, consulting and new business development. Dr. Wu has also in many occasions collaborated with Bioinformatics experts from Harvard Medical School, Stanford University and Astra Zeneca,

working with massive biological data.

Dr. Wu has been focusing on Semantic Technology over the last 8 years. He routinely lectured on AI and Semantic Technology at conferences. He has, since 2007, conducted more than 20 week-long workshops on Semantic Technology and Artificial Intelligence in Malaysia, China, Singapore, India and other Asian countries. Dr. Wu has also consulted on several Big Data and Semantic Technology projects in the US and Asia. Some of the projects include: Biodiversity Repository, Precision Agriculture for Citrus Plantation, Telecom Customer Relation Management, Malaysia R&D Knowledgebase, Intelligence analytics, Meta Data Management, Smart City and E-Learning System.

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AllegroGraph Recognized Among Top 10 Analytics Solution Providers by Pharma Tech Outlook

Franz's AllegroGraph powers Pharma Analytics for Sophisticated Decision Insights from Complex, Distributed Big Data

OAKLAND, Calif. — January 28, 2016 — Franz Inc., an early innovator in Artificial Intelligence (AI) and leading supplier of Semantic Graph Database technology has been named to Pharma Tech Outlook's Top 10 Analytics Solutions Providers for 2016.

"Franz Inc. has been selected as a Top 10 Analytics Solution Provider after careful evaluation across a dozen quantitative and qualitative elements," said Stacey Smith, Editor of Pharma Tech Outlook. "Our selection process takes into consideration a company's experience, industry recognition, technical certifications, market presence and positive client reviews. Franz Inc. and their Semantic Graph Database, AllegroGraph,

are clear market leaders for Analytics in the Pharmaceutical Industry."

Pharma Tech Outlook covers the latest developments in the pharmaceutical industry. They provide valuable updates — news, views and trends, expert opinions, studies, discoveries, R&D and clinical trials — essential for decision-makers in the industry. Covering all the novel outcomes, Pharma Tech Outlook aims at contributing to the transformation of innovations into services as well as creating a healthy and productive society.

Pharma Tech Outlook's "Top 10 Analytics Solution Providers" are selected annually by a panel of experts and members of Pharma Tech Outlook's editorial board to recognize and promote technology entrepreneurship.

"Using AllegroGraph, Enterprises can run queries of unprecedented complexity to enable predictive analytics and real time decision-making within a myriad of industries including Healthcare, Life Sciences, Financial Services, and Publishing," said Jans Aasman, CEO of Franz Inc. "Integrating databases is a virtually effortless which is particularly valuable if organizations want to tap into the growing number of public datasets to enrich their analytics."

"Information has always existed everywhere but has often been isolated, incomplete, unavailable or unintelligible," according to Gartner. "Advances in semantic tools such as graph databases as well as other emerging data classification and information analysis techniques will bring meaning to the often chaotic deluge of information." (Source: Gartner Identifies the Top Strategic Technology Trends for 2016.)

A recent Forrester Research report stated, "Graph databases are a powerful optimized technology that link billions of pieces of connected data to help create new sources of value for customers and increase operational agility for customer service. Because graph databases track connections among

entities and offer links to get more detailed information, they are well-suited for scenarios in which relationships are important, such as cybersecurity, social network analysis, eCommerce recommendations, dependence analysis, and predictive analytics." (Source: Forrester Research, Market Overview: Graph Databases, May 28, 2015)

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About Pharma Tech Outlook

Pharma Tech Outlook is an online and a monthly magazine which covers most important and latest developments in the pharmaceutical industry. Through nominations and consultations with industry leaders, its editors choose the best in Pharma domains. Pharma Tech Outlook's December-January Edition is an annual listing of Top 10 Analytics Solution Providers. For more information, visit the website at: http://www.pharmatechoutlook.com/

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Franz's Gruff Produces Dynamic Visual Discovery for Graph Analytics

Gruff and AllegroGraph Power Visual Graph Search and Visual Query Building for Banking, Healthcare, Pharma Discovery and Security Applications

OAKLAND, Calif. — November 2, 2015 — Franz Inc., an early innovator in Artificial Intelligence (AI) and leading supplier of Semantic Graph Database technology, today announced Gruff v6.0, the industry's leading Graph Visualization software for exploring and discovering connections within data. Gruff provides novice users and graph experts the ability to visually build queries and visualize connections between data without writing code, which speeds discovery and enhances the ability to uncover hidden connections within data.

"Gruff allows for easy viewing of graph style data and provides an easy on-ramp for non-technical users to explore connections in their data," said Dr. Jans Aasman, CEO of Franz Inc. "Users can easily create queries visually, without becoming a query language expert, which further empowers the business user for this technology. Power users also benefit by creating ever more detailed queries in order extract knowledge from their data."

Gruff v6.0 produces dynamic data visualizations that organize connections between data in views that are driven by the user. This visual flexibility can instantly unveil new discoveries and knowledge that turn complex data into actionable business insights. Gruff was developed by Franz to address Graph Search in large data sets and empower users to intelligently explore graphs in multiple views including:

- Graphical View — See the shape and density of graph data
- Tabular view — Understand objects as a whole
- Outline view — Explore the often hierarchical nature of graphs
- Query view — Write Prolog or SPARQL queries
- Graphical Query Builder — Create queries visually via drag and drop

Franz was recently named by CIOReview as one of the Top 20 Most Promising Database Solutions providers, due in part to the unique discovery capabilities offered by the combination of Gruff and AllegroGraph, Franz's Semantic Graph Database technology.

"Franz has been leading the burgeoning Graph Database revolution with a highly sophisticated, yet elegant Semantic Graph database solution," said Harvi Sachar, Publisher & Founder, CIO Review. "Franz's AllegroGraph continues to break new ground in predictive analytics and visual graph discovery capabilities- benefiting organizations around the globe within Healthcare, Intelligence/National Security, Life Sciences and Financial Services."

The popularity of Graph databases has skyrocketed — growing nearly 500% in the past two years, according to a ranking by DB-Engines. One reason for this growth is interest in using graph databases, rather than relational databases, to store master data. Graph databases offer a 360-degree view of master data and can answer questions about data relationships in real time, providing new, actionable insights from existing data.

A recent Dataversity article by Jelani Harper noted, "There is a considerable degree of complexity in MDM systems in a business climate impacted by Big Data, especially for systems centered on customer domains. Numerous external sources (including social media and various forms of sentiment analyses) considerably complicate key relationships for products and customers. The deployment of graph databases, such as Franz's AllegroGraph, with MDM can simplify these relationships by visually representing the way that different categories of an organization's core business—based on ontologies—relate to one another."

Gruff and AllegroGraph also play a pivotal role in the Semantic Data Lake for Healthcare. A collaboration with Franz Inc., Montefiore Medical Center (the eighth largest hospital in the U.S.), Intel, Cloudera and Cisco, to provide a scalable and extensible Healthcare platform designed for Accountable Care and Personalized Medicine initiatives.

"Making sense out of big data is a challenge, particularly in the healthcare industry where information comes from a variety of sources and in different forms including structured, unstructured, images, temporal, geo-location and signal data," said Dr. Aasman, "With Gruff as part of the Semantic Data Lake platform, we can perform visual data exploration to discover new relationships between data that can save lives and improve care."

Franz Inc. will host a Webcast on November 18th at 10AM PST, "Enriching the Property Graph with Relationship Objects," which will demonstrate the power of Gruff and AllegroGraph for an online banking application, a fraud detection application for a European tax office, a machine learning application in healthcare and the CrunchBase investment database.

Gruff 6.0 Availability

Gruff 6.0 is available as a free download from the AllegroGraph website. The product runs on Mac OSX, Windows, Linux and is offered as a standalone application or client-server for remote users.

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Franz Allegro Common Lisp Meets Demand for High Performance Artificial Intelligence in Big Data Applications

Allegro CL 10 Gains Parallel Memory Management to Power Complex, Mission-critical Applications that are Robust, Extensible and Easy to Evolve

OAKLAND, Calif. — October 7, 2015 — Franz, Inc., an early innovator in Artificial Intelligence (AI) and leading supplier of Common Lisp (CL) development tools and Semantic Graph

Database technology, today announced Allegro CL 10, which includes key performance enhancements now available within the most effective system for developing and deploying applications to solve the problems in the field of Artificial Intelligence.

"Demand for faster, more intelligent and scalable applications is increasing with the Big Data onslaught that is impacting applications in traditional AI industries like National Defense, but also in Life Sciences, Manufacturing and Financial Analytics," said Dr. Jans Aasman, CEO of Franz Inc. "The complexity of today's software applications and the explosion of data size is pervasive. With Allegro CL 10, machine intelligence developers now have a high performance tool to scale their applications and deliver innovative products to market."

Interest in Artificial Intelligence has surged recently. According to CB Insights data, venture capital investments in companies developing and commercializing AI-related products and technology have exceeded $2 billion since 2011.

"Common Lisp remains one of the best languages for Artificial Intelligence applications, its flexibility enables rapid experimentation and deployment", said Professor Ken Forbus, Walter P. Murphy Professor of Computer Science at Northwestern University. "Today's Lisp compilers are robust and flexible allowing development entirely within Lisp or in combination with other languages. For example, our CyclePad system for helping engineering students learn thermodynamics is written entirely in Allegro CL. Similarly, our sketch understanding system, CogSketch, which is a novel platform for both cognitive science research and education is primarily written in Allegro CL with two modules in C."

Allegro CL is a powerful, dynamic Artificial Intelligence development system that is especially well-suited for enterprise-wide, machine intelligence development. Now

applications with billions of objects are made easy with Allegro CL 10, the industry's leading Common Lisp based development environment. Allegro CL 10 delivers parallel memory management capabilities including parallel garbage collection and fast memory recycling.

"Allegro CL 10 confirms Franz's commitment to providing a leading Common Lisp platform," said Jason Cornez, CTO, RavenPack. "The upgrade path is completely smooth and the under-the-hood improvements, especially in the garbage collector, make it a worthy successor to what remains one of the best environments for developing and delivering amazing software."

"Financial professionals rely on RavenPack for its speed and accuracy in analyzing large amounts of unstructured content. RavenPack's clients use news analytics to enhance returns, reduce risk or increase efficiency by systematically incorporating the effects of public information in their models or workflows." stated Dr. Aasman. "Allegro CL's new capabilities will continue to facilitate Ravenpack's low latency text and sentiment analysis that they deliver as a real-time data feed."

"Allegro CL 10 with AllegroCache continues to deliver performance improvements that facilitate the success of our products with the U.S. Dept of Defense," said Glenn D. House Sr., President 2Is Inc., "Lisp is the ideal implementation vehicle for our machine learning algorithms and large scale, parallelized stochastic simulation product sets. We are delighted with the Garbage Collection enhancements in Allegro CL 10."

"2Is is the leader in logistics decision support and price analytics enterprise systems that have demonstrated tens of millions of dollars in reduced total cost of inventory ownership for the military and OEM supply chain," added Dr. Aasman. "2Is applications have been repeatedly proven under

multiple DOD Test and Evaluation contracts and Allegro CL 10 will continue to facilitate 2Is successful deliveries."

New Key Features and updates in Allegro CL 10:

- Parallel Global Garbage Collection
- New Payback Analysis for optimized Global Garbage Collection
- Precise Garbage Collection of stack slots for fast memory recycling
- Touchscreen and Alpha blending on Windows in Common Graphics
- API generator builds Lisp interface functions from information in Java class libraries
- Various Source Level debugging improvements
- Plus over 700 enhancements and updates, see the Release Notes for the details

About Lisp

Lisp is one of the first high-level programming languages and still in widespread use today. Lisp was originally created as a practical mathematical notation for computer programs and quickly became the favored programming language for artificial intelligence (AI) research. The most widely known general-purpose Lisp dialects are Common Lisp and Scheme. Allegro CL is the Common Lisp language developed and sold by Franz Inc.

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spatial and temporal linkages between individuals and groups.

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AllegroGraph Named as Leading Database Solution by CIOReview

Graph Database Market Continues Explosive Growth

OAKLAND, Calif. – September 15, 2015 – Franz, Inc., the leading supplier of Semantic Graph Database technology

technology has been named CIOReview Magazine's Top 20 Most Promising Database Technology Solution providers. The award comes on the heals of Franz's recent announcement of the first Semantic Data Lake (SDL) for Healthcare, which was created in collaboration with Montefiore Medical Center (the eighth largest hospital group in the U.S.), Intel, Cloudera and Cisco. The SDL for Healthcare is a scalable and extensible Healthcare platform designed for Accountable Care and Personalized Medicine initiatives.

"Franz has been leading the burgeoning Graph Database revolution with a highly sophisticated, yet elegant Semantic Graph database solution," said Harvi Sachar, Publisher & Founder, CIO Review. "Franz's AllegroGraph continues to break new ground in predictive analytics and visual graph discovery capabilities- benefiting organizations around the globe within Healthcare, Intelligence/National Security, Life Sciences and Financial Services. We're excited to include Franz as one of our 20 Most Promising Database Solution Providers."

CIOReview is a technology magazine that showcases enterprise solutions capable of redefining the business goals of enterprises. It is a neutral source of information for technology decision makers that constantly endeavors to identify "The Best" in a variety of areas important to the technology industry.

"Since our inception, we have always been in the business of 'solving complexity' through our Semantic Graph technologies," said Dr. Jans Aasman, CEO, Franz Inc.. "From our origins in the Artificial Intelligence boom, through our advanced capabilities in Graph search and now as part of our Semantic Data Lake project, we provide powerful solution to complex challenges in the Enterprise."

The popularity of Graph databases has skyrocketed — growing nearly 400% in the past two years, according to a DBMS ranking by DB-Engines.

A recent Forrester Research report stated, "Graph databases are a powerful optimized technology that link billions of pieces of connected data to help create new sources of value for customers and increase operational agility for customer service. Because graph databases track connections among entities and offer links to get more detailed information, they are well-suited for scenarios in which relationships are important, such as cybersecurity, social network analysis, eCommerce recommendations, dependence analysis, and predictive analytics." (Source: Forrester Research, Market Overview: Graph Databases, May 28, 2015)

During the recent Smart Data Conference, Dr. Parsa Mirhaji MD. PhD., Montefiore Medical Center and Dr. Jans Aasman, CEO of Franz Inc., introduced the AllegroGraph powered Semantic Data Lake. The need for semantic consistency within Data Lakes is a driving force for the Semantic Data Lake Healthcare platform. Adding semantics to a Data Lake dramatically eases the transformation and integration of multi-source, heterogeneous unstructured and structured data including free text clinical narratives.

'Data Lakes' have become one of the most discussed information management approaches over the past few years. According to Gartner Research Director Nick Heudecker, "Data Lakes typically begin as ungoverned data stores. Meeting the needs of wider audiences require curated repositories with governance, semantic consistency and access controls…" (Source: Press Release, Gartner Says Beware of the Data Lake Fallacy, July 28, 2014)

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Franz and Montefiore Medical Center Team up to Deliver the First Semantic Data Lake for Healthcare

Accountable Care and Personalized Medicine Initiatives Propelled by Unique Semantic Analytic Platform

San Jose, Calif., Smart Data Conference, August 13, 2015 — Franz Inc., the leading supplier of Semantic Graph Database technology, in collaboration with Montefiore Medical Center (the eighth largest hospital in the U.S.), Intel, Cloudera and Cisco, announced the first Semantic Data Lake (SDL) for Healthcare, a scalable and extensible Healthcare platform designed for Accountable Care and Personalized Medicine initiatives.

Montefiore Medical Center is developing the SDL Healthcare platform to enable and scale knowledge-based analytics, classification, pattern recognition, predictive modeling, and simulations. The platform integrates complex information for basic science, clinical, population, community, environmental, behavioral and wellness research data.

On August 18 during the Smart Data Conference, Dr. Parsa Mirhaji MD. PhD., Montefiore Medical Center and Dr. Jans

Aasman, CEO of Franz Inc., will introduce the concept of SDL for Healthcare and associated smart applications such as for personalized medicine, care management, decision support, fraud detection, risk management, signal detection and risk assessments.

'Data Lakes' have become one of the most discussed information management approaches over the past few years. According to Gartner Research Director Nick Heudecker, "Data Lakes typically begin as ungoverned data stores. Meeting the needs of wider audiences require curated repositories with governance, semantic consistency and access controls…" (Source: Press Release, Gartner Says Beware of the Data Lake Fallacy, July 28, 2014)

The need for semantic consistency within Data Lakes is a driving force for the SDL Healthcare platform. Adding semantics to a Data Lake dramatically eases the transformation and integration of multi-source, heterogeneous unstructured and structured data including free text clinical narratives. The SDL Healthcare platform creates a self-descriptive repository of graph data that can be queried in real-time to deliver critical answers to complex questions.

"The ability to conduct real-time analysis over new combinations of data such as patient information, genetic data, medical device data, clinical trials, drug information and public health data — will fuel discoveries, significantly improve efficiencies and personalize care," said Dr. Parsa Mirhaji MD. PhD., Associate Professor of Systems and Computational Biology and the Director of Clinical Research Informatics at the Albert Einstein College of Medicine and Montefiore Medical Center-Institute for Clinical Translational Research.

The SDL at Montefiore, which is expected to grow to trillions of edges by 2016, links and fuses domain specific models (ontologies), biomedical terminologies and taxonomy systems,

and other contextual metadata with ERP data, Electronic Medical Records, and medical device data in massive volumes. The SDL for Healthcare provides a uniform, semantically integrated, self-descriptive information repository based on graph representations of multi-source, heterogeneous data — including free text clinical narratives.

"Making sense out of big data is a challenge, particularly in the healthcare industry where information comes from a variety of sources and in different forms including structured, unstructured, images, temporal, geo-location and signal data," Dr. Jans Aasman, CEO, Franz Inc. "With the SDL for Healthcare we quickly ingest many types of data into a single system and apply Artificial Intelligence, machine learning and visual data exploration to discover new relationships between data that can save lives and improve care."

The SDL for Healthcare is a big data platform built on Cloudera's Hadoop distribution and Franz's AllegroGraph, a high performance Semantic Graph Database that enables analytics by leveraging the W3C industry standards. AllegroGraph empowers organizations to extract sophisticated decision insights and predictive analytics from highly complex, distributed data that isn possible using conventional databases.

The popularity of Graph databases has skyrocketed — growing nearly 400% in the past two years, according to a DBMS ranking by DB-Engines. A recent Forrester Research report stated, "Graph databases are a powerful optimized technology that link billions of pieces of connected data to help create new sources of value for customers and increase operational agility for customer service. Because graph databases track connections among entities and offer links to get more detailed information, they are well-suited for scenarios in which relationships are important, such as cybersecurity, social network analysis, eCommerce recommendations, dependence analysis, and predictive analytics." (Source: Forrester

Research, Market Overview: Graph Databases, May 28, 2015)

"The SDL for Healthcare demonstrates how leveraging Intel's Hadoop investment along with Franz's Semantic Graph Database addresses many of the scale, performance, data integration, and complex analytics challenges that have prohibited real world applications of Precision Medicine and Accountable Care," said Ketan Paranjape, General Manager Life Sciences, Intel. "We are pleased with this important project and looking forward to the discoveries it will fuel."

About AllegroGraph

Unlike traditional relational databases or Property Graph Databases, AllegroGraph employs semantic graph technologies that process data with contextual and conceptual intelligence. AllegroGraph is able run queries of unprecedented complexity to support predictive analytics that help organizations make more informed, real-time decisions. AllegroGraph is the first Graph Database to support analysis across N-dimensions — any conceivable measurement of an object, property or operation. For example, AllegroGraph can analyze temporal (time) and geospatial (location) dimensions relative to any 'event,' such as a disease, drug interaction, genetic combination, biomarkers, observations, image or physical sensors.

About Franz Inc.

Franz Inc. is an innovative technology company with expert knowledge in developing and deploying Graph Search solutions. AllegroGraph, Franz's flagship, high-performance, transactional, and scalable Graph Database, provides the solid storage layer for powerful Enterprise grade NoSQL solutions. AllegroGraph's Activity Recognition capabilities provides a powerful means to aggregate and analyze data about individual and organizational behaviors, preferences, relationships, plus spatial and temporal linkages between individuals and groups. Franz's Professional Service team is in the business of

helping companies turn Data into Information and Information into Knowledge. Franz is an American owned company based in Oakland, California with customers that include Fortune 500 companies in healthcare, government, life sciences and telecommunications industries. Franz has demonstrated consistent growth and profitability since inception. For more information, visit franz.com and allegrograph.com.

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How Cognitive Probability Graphs Can Save Lives

Franz's CEO, Jans Aasman, recently wrote the following article for Health IT Outcomes:

'In the near future, it will be possible for patients throughout the healthcare industry to understand the probability of susceptibilities based on their genes, medical records, family history, and current medical condition. By combining artificial intelligence, semantic technologies, Big Data, graph databases, and dynamic visualizations – cognitive probability graphs can determine the likelihood of future medical events.'

'The power of cognitive probability graphs stems from the capability to combine the probability space – statistical patient data – with a knowledge base of comprehensive medical codes and a unified terminology system. Integrating these into a semantic graph enables a dynamic querying profundity that is otherwise not possible.'

Read the full Article at Health IT Outcomes