

# Franz's CEO, Jans Aasman to Present at the Smart Data Conference in San Jose

**OAKLAND, Calif. – May 26, 2015** – Franz Inc.'s CEO, Dr. Jans Aasman, will present at the Smart Data Conference this August in San Jose, CA. The Smart Data Conference is designed to accommodate all levels of technical understanding, and brings together emerging disciplines that are focused on more intelligent information gathering and analysis.

## **Healthcare Analytics with a Smart Data Lake**

Montefiore Medical Center in collaboration with Franz, Intel, Cloudera and Cisco created a scalable and extensible Learning Healthcare System platform for accountable care and precision medicine initiatives. The underlying Hadoop based big data platform is called a "Semantic Data Lake" (SDL).

The SDL integrates complex information and analytic requirements including:

- Basic science
- Clinical
- Population
- Community
- Environmental
- Behavioral
- Wellness research data

The SDL 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 provides a uniform, semantically integrated, self-descriptive information repository based on graph representations of multi-source,

heterogeneous data (including free text clinical narratives). This platform is expected to grow to 4 trillion edges by the end of 2015.

Montefiore uses this platform for scalable knowledge-based analytics for classification, pattern recognition, predictive modeling, and simulations. We will demonstrate how we can create smart applications for decision support, fraud detection, risk management, personalized care management, signal detection and notifications.

### **About Dr. Aasman**

Jans Aasman started his career as an experimental and cognitive psychologist, earning his PhD in cognitive science with a detailed model of car driver behavior using Lisp and Soar. He has spent most of his professional life in telecommunications research, specializing in intelligent user interfaces and applied artificial intelligence projects. From 1995 to 2004, he was also a part-time professor in the Industrial Design department of the Technical University of Delft. Jans is currently the CEO of Franz Inc., the leading supplier of commercial, persistent, and scalable RDF database products that provide the storage layer for powerful reasoning and ontology modeling capabilities for Semantic Web applications.

### **Accomplishments:**

Dr. Aasman has gained notoriety as a conference speaker at such events as Semantic Technologies Conference, International Semantic Web Conference, Java One, Enterprise Data World, Semantics in Healthcare and Life Sciences, Linked Data Planet, INSA, GeoWeb, AAAI, NoSQLNow, Graph Data Management, RuleML, IEEE conferences, and DEBS to name a few.

### **About Franz Inc.**

Franz's semantic technology solutions help bring Web 3.0 ideas to reality. The company is the leading supplier of commercial, persistent and scalable Graph Database products. AllegroGraph is a high-performance database capable of storing and querying billions of RDF statements. The product provides solutions for customers to combine unstructured and structured data using W3C standard RDF for creating new Web 3.0 applications as well as identifying new opportunities for Business Intelligence in the Enterprise. AllegroGraph's Activity Recognition package 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 customers include Fortune 500 companies in the government, life sciences and telecommunications industries. For more information, visit [www.franz.com](http://www.franz.com).

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## **Franz's CEO, Jans Aasman to Present at the 2015 NOSQL NOW! Conference in San Jose**

**OAKLAND, Calif. – May 22, 2015** – Franz Inc.'s CEO, Dr. Jans Aasman, will present at the 2015 NoQL Now! conference this August in San Jose, CA. The fifth annual NoSQL Now! Conference is the largest vendor-neutral forum focused on NoSQL (Not Only SQL) technologies. The conference is intended for every enterprise looking for better, faster and cheaper solutions to manage its growing databases and data stores.

## **Spark and SPARQL for the Intelligent Data Lake**

'Data Lake' refers to the new practice in large enterprises to store all potentially relevant data in a Hadoop infrastructure for later analytics. Data Lakes promise to play a vital role in data analytics and numerous vendors are marketing Data Lakes as an essential part of a comprehensive Big Data strategy. Gartner recently noted that this approach is susceptible to problems with governance, provenance, curation, access control and that it would be very helpful if the data was self describing. So Gartner recommended strategies to add semantic consistency to a Data Lake.

We will present a Semantic Data Lake project, architected on top of Hadoop, that takes as input any data type (i.e. csv files, json, json-ld, XML, unstructured text, etc). The project includes a semantic layer that leverages a distributed parallel semantic indexing engine. This semantically indexed Data Lake can be accessed via map-reduce, Apache SPARK and SPARQL.

The project use case was developed for a hospital chain that already adheres to the Accountable Care Act (ACA) but needed a Data Lake that could provide (predictive) analytics for population research and personalized medicine. The resulting Data Lake contains internal data, data from other hospitals in the same region and publicly available data such as a drug database, clinical trials, etc. All data in the Semantic Data Lake has been curated and transformed to fit ontologies and vocabularies like Mesh, Snomed and UMLS. In addition, all temporal relationships in the hospital data are preserved to provide causal analytics.

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with a detailed model of car driver behavior using Lisp and Soar. He has spent most of his professional life in telecommunications research, specializing in intelligent user interfaces and applied artificial intelligence projects. From 1995 to 2004, he was also a part-time professor in the Industrial Design department of the Technical University of Delft. Jans is currently the CEO of Franz Inc., the leading supplier of commercial, persistent, and scalable RDF database products that provide the storage layer for powerful reasoning and ontology modeling capabilities for Semantic Web applications.

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# New York Times Article – Is There a Smarter Path to Artificial Intelligence?

From the New York Times – June 20, 2018

This article caught our attention because they featured a startup that was using Prolog for AI. We have been strong proponents of Prolog for Semantic Graph solutions for many years.

*For the past five years, the hottest thing in artificial intelligence has been a branch known as deep learning. The grandly named statistical technique, put simply, gives computers a way to learn by processing vast amounts of data. Thanks to deep learning, computers can easily identify faces and recognize spoken words, making other forms of humanlike intelligence suddenly seem within reach.*

*Companies like Google, Facebook and Microsoft have poured money into deep learning. Start-ups pursuing everything from cancer cures to back-office automation trumpet their deep learning expertise. And the technology's perception and pattern-matching abilities are being applied to improve progress in fields such as drug discovery and self-driving cars.*

*But now some scientists are asking whether deep learning is*

*really so deep after all.....*

*.....Those other, non-deep learning tools are often old techniques employed in new ways. At Kyndi, a Silicon Valley start-up, computer scientists are writing code in Prolog, a programming language that dates to the 1970s. It was designed for the reasoning and knowledge representation side of A.I., which processes facts and concepts, and tries to complete tasks that are not always well defined. Deep learning comes from the statistical side of A.I. known as machine learning.*

**Our Tweet with links to AllegroGraph Prolog documentation and the full article:**

**nytimestech** “computer scientists are writing code in **#Prolog**... It was designed for the reasoning and knowledge representation side of **#AI** ...” <https://buff.ly/2lmYwkv> – **#AllegroGraph** is the only **#GraphDatabase** to include **#Prolog** for your AI apps. <https://buff.ly/2yv0IzF>

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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**