



Knowledge Graphs

Pragmatic approach and best practices

Half day workshop
by Panos Alexopoulos

AdeptEvents

- Understand the key factors determining the feasibility and viability
- Fundamental questions for preparing a knowledge graph initiative
- Learn techniques to determine and prioritize the content requirements of a knowledge graph
- Best practices in schema design for knowledge graphs
- Gain insights into assessing and prioritizing quality dimensions
- Methodologies for ongoing maintenance and evolution of knowledge graphs

LANGUAGE
English

VENUE
Utrecht / Hilversum

TIME
13:30 – 17:00 hours

REGISTRATION
www.adeptevents.nl



Knowledge Graphs

Pragmatic approach and best practices

In today's data-driven landscape, the concept of a knowledge graph has emerged as a pivotal framework for managing and utilizing interconnected data and information. Stemming from Google's proclamation that shifted the focus from searching for strings to understanding entities and relationships, the term encapsulates a network of interconnected entities and concepts, facilitating data integration, sharing, and utilization within organizations.

Amid the widespread adoption of knowledge graphs across diverse domains, ensuring the accuracy, reliability, and consensus of semantic information becomes an imperative. The construction and utilization of these graphs present multifaceted challenges, ranging from ensuring data quality to scaling and adapting to evolving contexts.

Implementing a successful Knowledge Graph initiative within an organization demands strategic decisions before and during its execution. Often overlooked are critical considerations such as managing trade-offs between knowledge quality and other factors, prioritizing knowledge evolution, and allocating resources effectively. Neglecting these facets can lead to friction and suboptimal outcomes.

This half-day seminar delves into the technical, business, and organizational dimensions essential for data practitioners and executives embarking on a Knowledge Graph initiative. Offering insights gleaned from real-world case studies, the seminar provides a comprehensive framework that combines cutting-edge techniques with pragmatic advice. It equips participants to navigate the complexities of executing a knowledge graph project successfully.

Moreover, the session addresses pivotal strategic dilemmas encountered during the design and execution phases of knowledge graph projects, and outlines potential approaches to tackle these challenges, empowering attendees with actionable strategies to optimize their initiatives.

Learning Objectives

- Understand the key factors determining the feasibility and viability of implementing a knowledge graph in an organization
- Identify and articulate the fundamental questions crucial for preparing and launching a successful knowledge graph initiative
- Learn techniques to determine and prioritize the content requirements of a knowledge graph
- Grasp best practices in schema design for knowledge graphs, addressing real-world challenges of uncertainty and vagueness
- Explore strategies and guidelines for populating a knowledge graph, evaluating available knowledge extraction systems
- Gain insights into assessing and prioritizing quality dimensions within a knowledge graph
- Explore practical applications of knowledge graphs, such as entity disambiguation and semantic search, optimizing performance through design principles
- Gain insights into methodologies for ongoing maintenance and evolution of knowledge graphs, ensuring their sustained relevance and adaptability across time.

Who is it for?

- Data practitioners: Data scientists, data engineers, data analysts, and database administrators seeking to deepen their understanding of knowledge graphs, their implementation, and the technical intricacies involved.
- Technology Leaders: Architects, CTOs, and IT professionals exploring or leading initiatives involving data integration, semantic technologies, and knowledge management systems.
- Business Executives and Managers: Leaders and decision-makers responsible for overseeing data strategies, innovation, and organizational transformation, aiming to comprehend the strategic implications and business value derived from knowledge graph initiatives

Detailed Course Outline

The seminar will walk participants through 8 key stages of introducing, developing, delivering and evolving Knowledge Graphs in an organization.

These are:

Stage 1 – “Knowing where you are getting into”

- Clarification of the knowledge graph concept
- Key factors influencing the ease or difficulty of building a knowledge graph
- Evaluating feasibility and viability of implementing a knowledge graph in a specific organization and for a particular business problem

Stage 2 – “Setting up the stage”

- Exploring 5 key questions essential before initiating knowledge graph development
- Defining what, why, how, who, and the stakeholders involved in the project
- Outlining actions required to seek and discover answers to these questions

Stage 3 – “Deciding what to build”:

- Delving into knowledge graph specification
- Use of competency questions for gap analysis between organizational knowledge capabilities and needs
- Scoping and prioritizing knowledge graph content

Stage 4 – “Giving it a shape”

- Schema design using Ontology Representation and Engineering

- Identification of conceptual modeling best practices, dilemmas, and pitfalls
- Addressing uncertainty and vagueness

Stage 5 – “Giving it substance”

- Exploring the challenging task of knowledge graph population
- Description of population tasks and associated difficulties
- Designing optimal population pipelines

Stage 6 – “Ensuring it’s good”:

- Assessing knowledge graph quality, defining dimensions, and metrics
- Insights into quality trade-offs and prioritization of dimensions
- Measuring quality and effective prioritization of focus areas

Stage 7 – “Making it useful”:

- Typical knowledge graph applications
- Guidelines and best practices for optimizing knowledge graph usefulness and value

Stage 8 – “Making it last”:

- Addressing the challenge of knowledge graph maintenance and evolution
- Detecting, measuring, and monitoring concept drift
- Best practices for enabling continuous improvement and preventing knowledge graph obsolescence over time.



PANOS ALEXOPOULOS

PANOS ALEXOPOULOS has been working since 2006 at the intersection of data, semantics and software, contributing in building intelligent systems that deliver value to business and society. Born and raised in Athens, Greece, he currently works as Head of Ontology at Textkernel BV, in Amsterdam, Netherlands, leading a team of data professionals in developing and delivering a large cross-lingual Knowledge Graph in the HR and Recruitment domain. In addition, he develops and delivers training workshops for practitioners in the fields of Data Semantics, Natural Language Processing, and Artificial Intelligence.

Panos has published several papers at international conferences, journals and books, and he is a regular speaker in both academic and industry venues, striving to bridge the gap between academia and industry so that they can benefit from each other. He is also the author of the O’Reilly book “Semantic Modeling for Data – Avoiding Pitfalls and Dilemmas”, a practical and pragmatic field guide for data practitioners that want to learn how semantic data modeling is applied in the real world.

Information

DATE AND TIME

The workshop will take place on March 28, 2024 from 13:30 to 17:00. We may continue to run this course once or twice a year with the exact date and time available on our website.

In case of virtual half day sessions, please visit our website for the exact schedule and remember to log in well in advance to check your video and audio settings.

VENUE

Adept Events works with several venues in and near Amersfoort and Utrecht. We strive to provide you with the location details as soon as possible. The exact venue will be on our website and in the confirmation e-mail that you will receive one week prior to the event. Always check our website prior to your departure to ensure you have the exact location and directions.

HOW TO REGISTER

Please register online at www.adeptevents.nl. For registering by print, please scan the completed registration form and send this or your Purchase Order to customerservice@adeptevents.nl. We will confirm your registration and invoice your company by e-mail therefore please do not omit your e-mail address when registering.

REGISTRATION FEE

Taking part in this half-day workshop will only cost € 351,- when registering 30 days beforehand and € 390,- per person afterwards. If combined with attending our DW&BI Summit on March 27th, 2024, the fee will be € 333,- when registering 30 days beforehand and € 370,- per person afterwards.

In case of virtual delivery, the registration fee is € 297,- when registering 30 days beforehand and € 330,- per person afterwards (excl. 21% Dutch VAT).

In completing your registration form you declare that you agree with our **Terms and Conditions**.

Team discounts

Discounts are available for group bookings of two or more delegates representing the same organization made at the same time. Ten percent off for the second and third delegate and fifteen percent off for all delegates when registering four or more delegates (all delegates must be listed on the same invoice).

This cannot be used in conjunction with other discounts.

All prices are VAT excluded.

PAYMENT

Full payment is due prior to the workshop. An invoice will be sent to you containing our full bank details including BIC and IBAN. Your payment should always include the invoice number as well as the name of your company and the delegate name.

Payment by credit card is also available. Please mention this in the Comment-field upon registration and find further instructions for credit card payment on our **customer service page**.

Cancellation Policy

Cancellations must be received in writing at least three weeks before the commencement of the workshop and will be subject to a € 75,- administration fee. It is regretted that cancellations received within three weeks of the workshop date will be liable for the full workshop fee. Substitutions can be made at any time and at no extra charge.

Cancellation Liability

In the unlikely event of cancellation of the workshop for any reason, Adept Events' liability is limited to the return of the registration fee only. Adept Events will not reimburse delegates for any travel or hotel cancellation fees or penalties. It may be necessary, for reasons beyond the control of Adept Events, to change the content, timings, speakers, date and venue of the workshop.

MORE INFORMATION



+31(0)172 742680



<https://www.adeptevents.nl/kgr-en>



seminars@adeptevents.nl



@AdeptEventsNL / <https://twitter.com/AdeptEventsNL>



<https://www.linkedin.com/company/adept-events>



<https://www.facebook.com/AdeptEventsNL>



Visit our Business Intelligence and Data Warehousing website www.biplatform.nl and download the App



Visit our website on Software Engineering, www.release.nl and download the App

IN-HOUSE TRAINING

Would you like to run this course in-company for a group of persons? We can provide a quote for running an in-house course, if you offer the following details. Estimated number of delegates, location (town, country), number of days required (if different from the public course) and the preferred date/period (month). Please find more info on the **In-house page on our website**.