



Kent
Graziano

Keith
McCormick

Lawrence
Corr

Nigel
Turner

Martin
Kersten

Rutger
Rienks

Lex
Pierik

Rick
van der Lans

UTRECHT

MARCH 27-28, 2019

DATA WAREHOUSING & BUSINESS INTELLIGENCE SUMMIT 2019

Big Data, Agile Datawarehouse Design, Analytics & Data Science,
Dimensional Modeling, Data Storytelling, Cloud-based BI

Acclaimed speakers

Kent Graziano, Keith McCormick,
Lawrence Corr, Nigel Turner,
Martin Kersten, Rutger Rienks,
Lex Pierik and Rick van der Lans

- Increasing the success of BI projects through data-driven storytelling
- The influence of new database technology on data architectures
- Data warehouses: now and in the future; the influence of cloud
- Dimensional data modeling using the technique Data Model Storming
- Dealing with organizational resistance to predictive analytics
- Why is the marriage between data warehousing and data quality still not perfect?
- Setting up a successful data strategy that fits the business strategy
- How can we design data warehouses faster with agile design methods?
- The new world of Business Intelligence: from batch to Lambda and to Kappa

INFORMATION AND REGISTRATION:
WWW.DWBISUMMIT.COM

WORKSHOP APRIL 1 - 2, 2019

Keith McCormick will host a practical hands-on workshop

PUTTING MACHINE LEARNING TO WORK

Translating Organizational Challenges into Supervised & Unsupervised
Learning Solutions



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DATA WAREHOUSING & BUSINESS INTELLIGENCE SUMMIT 2019

The data-driven organization and digital transformation are key topics in the IT industry and in the board rooms. Sometimes these concepts are over-simplified, as if a simple action is sufficient to transform an organization into a data-driven one. Nothing is further from the truth. Although many organizations have their own definition of what they mean with the two concepts, they all do agree on that both concepts are essential and that data must play a greater role in business operations. Data must be used more intensively within an organization, for example by means of data science, the yield from the current investment in data can be increased, data must be used more widely in numerous business areas, and AI techniques must be deployed to discover new business insights.

Indirectly, the sixth edition of the DW&BI Summit is focused on this increasing need for data-driven organizations and their digital transformation. Organizational, technical, and architectural aspects are explained. Topics include dealing with the resistance to technological innovations, what database technology will look like in five years' time, the importance of storytelling, and the design of future-proof data architectures.

The conference offers practical guidelines and do's and don'ts to help you with these current and impending issues. You will meet well-known speakers and thought leaders from the Netherlands and abroad, including Keith McCormick, Lawrence Corr, Kent Graziano, Nigel Turner, Martin Kersten and Rick van der Lans.

Once again, we managed to set up a very strong line-up with internationally acclaimed speakers, ready to share their knowledge and experience with you.

Some of the main topics that will be discussed these two days:

- Increasing the success of BI projects through data-driven storytelling
- The influence of new database technology on data architectures
- Data warehouses: now and in the future; the influence of cloud
- Transforming business models into dimensional data models using the technique Data Model Storming

- Dealing with organizational resistance to predictive analytics
- Why is the marriage between data warehousing and data quality still not perfect?
- Setting up a successful data strategy that fits the business strategy
- How can we design data warehouses faster with agile design methods?
- The new world of Business Intelligence: from batch to Lambda and to Kappa.

Who should attend

The two day DW&BI Summit is geared to for IT Executives, IT Management and Architects, business intelligence and data warehousing professionals who wish to take a detailed and practical look at the latest developments in Data Warehousing and Business Intelligence. The following professionals should attend:

- Sponsors of BI and DW programs
- Business technology managers
- IT executives and managers
- BI/DW project managers
- Data warehousing architects
- Business intelligence practitioners
- Business analysts
- Data scientists
- Technology architects
- Data architects and data modelers
- Project and program managers
- Data integrators
- Developers of BI and DW systems
- Business and IT consultants

Limited time? Join us one day

Can you only attend one day? It is possible to attend only the first or only the second conference day and of course the full conference. The presentations by our speakers have been selected in such a way that they can stand on their own. This enables you to attend the second conference day even if you did not attend the first (or the other way around).

This is the sixth edition of DW&BI Summit in The Netherlands. This upcoming edition you can benefit from the expertise of Keith McCormick, Lawrence Corr, Kent Graziano, Nigel Turner, Martin Kersten and Rick van der Lans amongst others. Each year will see key note presentations by the crème de la crème of the international data warehouse and BI community. Internationally acclaimed speakers like Bill Inmon, Claudia Imhoff, Donald Farmer, Nigel Pendse, Colin White, Mike Ferguson, Wayne Eckerson, Mark Madsen, William McKnight, Richard Hackathorn, John Ladley, Dan Linstedt, Barry Devlin, Krish Krishnan, Daragh O'Brien and Jan Henderyckx have graced earlier editions of this conference with their presence.



INTERNATIONALLY ACCLAIMED SPEAKERS



KEITH MCCORMICK is a highly accomplished professional senior consultant, mentor, and trainer, having served as keynote and moderator at international conferences focused on analytic practitioners and leadership alike. Keith has leveraged statistical software since 1990 along with deep expertise utilizing popular industry advanced analytics solutions such as IBM SPSS Statistics, IBM SPSS Modeler, AMOS, Answer Tree, popular open source and other tools involving text and big data analytics. Keith McCormick has guided organizations to establish highly effective analytical practices across industries, to include public sector, media, marketing, healthcare, retail, finance, manufacturing and higher education. He holds a very unique blend of tactical and strategic skill along with the business acumen to ensure superior project design, oversight and outcomes that align with organizational targets.



RICK VAN DER LANS is a highly-respected independent analyst, consultant, author, and internationally acclaimed lecturer specializing in data warehousing, business intelligence, big data, and database technology. He has presented countless seminars, webinars, and keynotes at industry-leading conferences. For many years, he has served as the chairman of the annual European Enterprise Data and Business Intelligence Conference in London and the annual Data Warehousing and Business Intelligence Summit in The Netherlands. Rick helps clients worldwide to design their data warehouse, big data, and business intelligence architectures and solutions and assists them with selecting the right products. He has been influential in introducing the new logical data warehouse architecture worldwide which helps organizations to develop more agile business intelligence systems. Over the years, Rick has written hundreds of articles and blogs for newspapers and websites and has authored many educational and popular white papers for a long list of vendors. He was the author of the first available book on

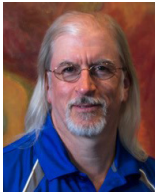
SQL, entitled including Introduction to SQL, which has been translated into several languages with more than 100,000 copies sold. More recently, he published his book Data Virtualization for Business Intelligence Systems. In 2018 Rick ranked sixth place as most influential BI-analyst worldwide on the Analytica Influencer List.



LAWRENCE CORR is a leading international BI consultant and former Ralph Kimball Associate. He is the author of Agile Data Warehouse Design: Collaborative Dimensional Modeling, from Whiteboard to Star Schema, an Amazon #1 bestseller in data warehousing and database design. Lawrence has worked on data warehousing projects in the US, Europe, the Middle East and Africa within healthcare, telecoms, broadcasting, higher education, financial services and retail, helping organizations benefit from simpler, more inclusive requirements modeling techniques. Lawrence's new book Data Modelstorming: Using BEAM to Design the Data Everyone Wants will be published in 2019.



NIGEL TURNER is Principal Information Management Consultant for EMEA at Global Data Strategy Ltd. and Vice-Chair of the Data Management Association of the UK. Nigel has worked in Information Management for over 25 years, both as an in-house deliverer of Information Management solutions at British Telecommunications plc and subsequently as an external consultant to more than 150 clients, including British Gas, UK Environment Agency, Intel US and others. He also works as a part time project manager at Cardiff University's National Software Academy. Nigel is a sought after speaker at conferences on information management and is based in Cardiff, UK.



KENT GRAZIANO is the Chief Technical Evangelist for Snowflake Computing. He is an award winning author, speaker, and trainer, in the areas of data modeling, data architecture, and data warehousing. He is an Oracle ACE Director – Alumni, member of the OakTable Network, a certified Data Vault Master and Data Vault 2.0 Practitioner (CDVP2), expert data modeler and solution architect with more than 30 years of experience, including over two decades doing data warehousing and business intelligence (in multiple industries). He is an internationally recognized expert in Data Vault and Agile Data Warehousing. Mr. Graziano has developed and led many successful software and data warehouse implementation teams, including multiple agile DW/BI teams. He has written numerous articles, authored three Kindle book (available on Amazon.com), co-authored four books (including the 1st Edition of The Data Model Resource Book), and has given hundreds of presentations, nationally and internationally. He was a co-author on the first book on Data Vault, and the technical editor for Super Charge Your Data Warehouse. In 2014, he was voted one of the best presenters at OUGF14 in Helsinki, Finland. You can follow Kent on twitter @KentGraziano or on his blog The Data Warrior (<http://kentgraziano.com>).



MARTIN KERSTEN is a computer scientist with research focus on database architectures, query optimization and their use in scientific databases. He is an architect of the MonetDB system, an open-source column store database for data warehouses, online analytical processing (OLAP) and geographic information systems (GIS). For this work he received the prestigious ACM SIGMOD E.F. Codd Innovation Award and the ACM SIGMOD Systems Award. He published more than 150 papers and is an ACM Research Fellow. He has been (co-) founder of several successful spin-offs of CWI such as Data Distilleries and MonetDB.



LEX PIERIK started working in the ICT industry in 2000 and by extensive field experiences he quickly grew into his current role as a principal BI consultant. He is a seasoned ICT professional with a particular expertise in both the conceptual as well as the technical complexities of BI challenges. Lex is the creator and facilitator of tool agnostic visualization training sessions and he has been able to convince many companies and both BI and non-BI professionals of the importance of visualization techniques in order to produce actionable insights.



RUTGER RIENKS is the author of "Predictive Policing: Taking a Chance for a Safer Future". He holds a PhD in computer science from the University of Twente in The Netherlands and is a well-known enthusiastic speaker. Rutger has broad experience in Business Intelligence and Predictive Analytics. To broaden his view he exchanged the Dutch National Police after eight years for the City of Amsterdam in order to contribute in the transformation of Amsterdam becoming a smart city. Currently Rutger is employed as Thought Leader Data Strategy at KPN. He was one of the speakers at a previous edition of our yearly conference, the Data Warehousing & Business Intelligence Summit.

CONFERENCE OUTLINE



The programme starts at 9:30 am and ends at 5:15 pm on both conference days. Registration commences at 8.30 am.

WEDNESDAY, MARCH 27

Session 1

The influence of the new technologies on data architectures – Rick van der Lans

Session 2A

Data Modelstorming: From Business Models to Analytical Models – Lawrence Corr

Session 3A

Becoming Data Driven – A Data Strategy for Success & Business Insight – Nigel Turner

Session 4

Agile Methods and Data Warehousing: How to Deliver Faster – Kent Graziano

Session 2B

Het moderne database eco-systeem in een snel veranderde wereld – Martin Kersten

Session 3B

Model Deployment for Production & Adoption – Why the Last Task Should be the First Discussed – Keith McCormick

THURSDAY, MARCH 28

Session 5

Addressing Organizational Resistance to Predictive Analytics and Machine Learning – Keith McCormick

Session 6A

Data Warehousing in Today and Beyond – Kent Graziano

Session 7A

Data Quality & BI/DW – Not yet a marriage made in heaven – Nigel Turner

Session 8

Developing your own Enterprise Data Marketplace – Rick van der Lans

Session 6B

Maak uw BI-project succesvol met Data-Driven Storytelling – Lex Pierik

Session 7B

De nieuwe business intelligence wereld: van Batch naar Lambda en Kappa – Rutger Rienks

Daily schedule:

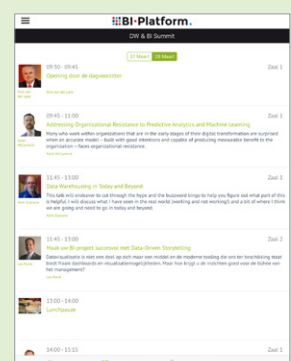
- 09:30 – 09:45 Opening by Conference Chairman
- 09:45 – 11:00 Session 1
- 11:00 – 11:15 Coffee break
- 11:15 – 11:45 Case study
- 11:45 – 13:00 Session 2A en Session 2B
- 13:00 – 14:00 Lunch
- 14:00 – 15:15 Session 3A en Session 3B
- 15:15 – 15:30 Coffee break
- 15:30 – 16:00 Case study
- 16:00 – 17:15 Session 4

On the 27th of March, there will be a reception after the final session

CONFERENCE-APP



Download the DW&BI Summit Conference-App (integrated in the BI-Platform app)





1. The influence of the new technologies on data architectures (Dutch spoken)

Rick van der Lans, Managing Director, R20/Consultancy

The rules used to be that data architectures had to be designed independently of the technologies and products; first, design the data architecture and then select the right products. This was achievable because many products were reasonably interchangeable. But is that still possible? In recent years we have been confronted with an unremitting stream of technologies for processing, analyzing and storing data, such as Hadoop, NoSQL, NewSQL, GPU-databases, Spark and Kafka. These technologies have a major impact on data processing architectures, such as data warehouses and streaming applications. But most importantly, many of these products have very unique internal architectures and directly enforce certain data architectures. So, can we still develop a technology independent data architecture? In this session the potential influence of the new technologies on data architectures is explained.

- Are we stuck in our old ideas about data architecture?
- From generic to specialized technologies
- Examples of technologies that enforce a certain data architecture
- What is the role of software generators in this discussion?
- New technology can only be used optimally if the data architecture is geared to it.

2A. Data Modelstorming: From Business Models to Analytical Models

Lawrence Corr, Chief Data Modelstormer, DecisionOne Consulting

Have you ever been disappointed with the results of traditional data requirements gathering, especially for BI and data analytics? Ever wished you could 'cut to the chase' and somehow model the data directly with the people who know it and want to use it. However, that's not a realistic alternative, is it? Business people don't do data modeling! But what if that wasn't the case?

In this lively session Lawrence Corr shares his favourite collaborative modeling techniques – popularized in books such as 'Business Model Generation' and 'Agile Data Warehouse Design' – for successfully engaging stakeholders using BEAM (Business Event Analysis and Modeling) and the Business Model Canvas for value-driven BI requirements gathering and star schema design. Learn how visual thinking,

narrative, 7Ws and lots of Post-it™ notes can get your stakeholders thinking dimensionally and capturing their own data requirements with agility.

This session will cover:

- The whys of data modelstorming: Why it's different from traditional data modeling and why we need it
- Drawing user-focused data models: alternatives to entity relation diagrams for visualising data opportunities
- Using BEAM (Business Event Analysis and Modeling) to discover key data sources and define rich data sets
- How making toast can encourage collaborative modeling within your organisation
- Modelstorming templates which you can download and start using straight away.

2B. Het moderne database eco-systeem in een snel veranderende wereld (Dutch spoken)

Martin Kersten, Computer Scientist, Centrum Wiskunde & Informatica

Cloud diensten, in-memory databases en database servers die gebruik maken van massive parallel processing voeren de boventoon in de marketing hype van vandaag. Maar wat is er de laatste tien jaar nu echt veranderd in de databasemarkt? Welke aanbieders zijn in staat om vooruit te blijven lopen op technologisch gebied? Moeten we ons zorgen maken over de invloed van nieuwe hardware zoals GPU en non-volatile memory? En kunnen we wel vertrouwen op programmeurs om keer op keer het wiel opnieuw uit te vinden voor elke database-interactie? Wat zijn de hot technologies in de labs van de database leveranciers?

In deze sessie zal vooral worden gekeken naar:

- Column stores, een de-facto standaard voor Business Intelligence, met haar oorsprong in Nederland
- Van Hadoop tot Apache Spark, wanneer u wel en wanneer u niet de portemonnee moet trekken
- Het slechten van de muren tussen het DBMS en programmeertalen als Java/C/..
- Performance, niet alleen een kwestie van een benchmark score
- Efficiënt omgaan met resources om geld te besparen.



3A. Becoming Data Driven – A Data Strategy for Success & Business Insight

Nigel Turner, Principal Information Management Consultant, Global Data Strategy

More enterprises are seeking to transform themselves into data-driven, digitally based organisations. Many have recognised that this will not be solely achieved by acquiring new technologies and tools. Instead they are aware that becoming data-driven requires a holistic transformation of existing business models, involving culture change, process redesign and re-engineering, and a step change in data management capabilities.

To deliver this holistic transformation, creating and delivering a coherent and overarching data strategy is essential. Becoming data-driven requires a plan which spells out what an organisation must do to achieve its data transformational goals. A data strategy can be critical in answering questions such as: How ready are we to become data-driven? What data do we need to focus on, now and in the future? What problems and opportunities should we tackle first and why? What part does business intelligence and data warehousing have to play in a data strategy? How do we assess a data strategy's success?

This session will outline how to produce a data strategy and supporting roadmap, and how to ensure that it becomes a living and agile blueprint for change rather than a statement of aspiration.

This session will cover:

- The relationship between an organisation's business strategy and data strategy
- What a data strategy is (and is not)
- Building & delivering a data strategy – the key components and steps
- The role of BI/DW in a data strategy – data issues and data needs
- The 'limit or liberate' data dilemma and how to resolve it through data governance
- Several use cases of successful data strategies and lessons learned.

3B. Model Deployment for Production & Adoption – Why the Last Task Should be the First Discussed

Keith McCormick, Senior Consultant, The Modeling Agency

Most analytic modelers wait until after they've built a model to consider deployment. Doing so practically ensures


project failure. Their motivations are typically sincere but misplaced. In many cases, analysts want to first ensure that there is something worth deploying. However, there are very specific design issues that must be resolved before meaningful data exploration, data preparation and modeling can begin. The most obvious of many considerations to address ahead of modeling is whether senior management truly desires a deployed model. Perhaps the perceived purpose of the model is insight and not deployment at all. There is a myth that a model that manages to provide insight will also have the characteristics desirable in a deployed model. It is simply not true. No one benefits from this lack of foresight and communication. This session will convey imperative preparatory considerations to arrive at accountable, deployable and adoptable projects and Keith will share carefully chosen project design case studies and how deployment is a critical design consideration.

- Which modeling approach continues to be the most common and important in machine learning
- The iterative process from exploration to modeling to deployment
- Which team members should be consulted in the earliest stages of predictive analytics project design?
- Misconceptions about predictive analytics, modeling, and deployment
- Costly strategic design errors to avoid in predictive analytics projects
- Common styles of deployment.

4. Agile Methods and Data Warehousing: How to Deliver Faster

Kent Graziano, Chief Technical Evangelist, Snowflake

Most people will agree that data warehousing and business intelligence projects take too long to deliver tangible results. Often by the time a solution is in place, the business needs have changed. With all the talk about Agile development methods like SCRUM and Extreme Programming, the question arises as to how these approaches can be used to deliver data warehouse and business intelligence projects faster. This presentation will look at the 12 principles behind the Agile Manifesto and see how they might be applied in the context of a data warehouse project. The goal is to determine a method or methods to get a more rapid (2-4 weeks) delivery of portions of an enterprise data warehouse architecture.



Real world examples with metrics will be discussed.

- What are the original 12 principles of Agile
- How can they be applied to DW/BI projects
- Real world examples of successful application of the principles.

5. Addressing Organizational Resistance to Predictive Analytics and Machine Learning

Keith McCormick, Senior Consultant, The Modeling Agency

Many who work within organizations that are in the early stages of their digital transformation are surprised when an accurate model -- built with good intentions and capable of producing measurable benefit to the organization -- faces organizational resistance. No veteran modeler is surprised by this because all projects face some organizational resistance to some degree. This predictable and eminently manageable problem simply requires attention during the project's design phase. Proper design will minimize resistance and most projects will proceed to their natural conclusion -- deployed models that provide measurable and purposeful benefit to the organization. Keith will share carefully chosen case studies based upon real world projects that reveal why organizational resistance was a problem and how it was addressed.

- Typical reasons why organizational resistance arises.
- Identifying and prioritizing valid opportunities that align with organizational priorities
- Which teams members should be consulted early in the project design to avoid resistance
- How to estimate ROI during the design phases and achieve ROI in the validation phase
- The importance of a 'dress rehearsal' prior to going live.

6A. Data Warehousing in Today and Beyond

Kent Graziano, Chief Technical Evangelist, Snowflake

The world of data warehousing has changed! With the advent of Big Data, Streaming Data, IoT, and The Cloud, what is a modern data management professional to do? It may seem to be a very different world with different concepts, terms, and techniques. Or is it? Lots of people still talk about having a data warehouse or several data marts across their organization. But what does that really mean today? How about the Corporate Information Factory (CIF), the Data Vault, an Operational Data Store (ODS), or just star schemas? Where do they fit now (or do they)? And now we have the Extended Data Warehouse (XDW) as well. How do all these things help us bring value and data-based decisions to

our organizations? Where do Big Data and the Cloud fit? Is there a coherent architecture we can define? This talk will endeavor to cut through the hype and the buzzword bingo to help you figure out what part of this is helpful. I will discuss what I have seen in the real world (working and not working!) and a bit of where I think we are going and need to go in today and beyond.

- What are the traditional/historical approaches
- What have organizations been doing recently
- What are the new options and some of their benefits.

6B. Maak uw BI-project succesvol met Data-Driven Storytelling (Dutch spoken)

Lex Pierik, Managing Director, Think.Design.Make

Al jaren bestaat de wereld van Business Intelligence (BI) uit het bouwen van rapporten en dashboards. De BI-wereld om ons heen verandert echter snel. (Statistical) Analytics worden meer en meer ingezet, elke student krijgt gedegen BI-training en het gebruik van data verplaatst zich van IT naar business. Maar zijn we wel klaar voor deze nieuwe werkwijze? Zijn we in staat om de nieuw verkregen inzichten te delen? En kunnen we echt het onderbuikgevoel van het management veranderen?

Tijdens deze presentatie gaan we in op deze veranderende wereld. We gaan in op hoe we het data-driven storytelling proces kunnen toepassen binnen BI-projecten, welke rollen zijn hiervoor nodig en u krijgt handvatten om nieuw verkregen inzichten te communiceren via storytelling.

- Inzicht in het Data-driven storytelling proces
- Visuele data exploratie
- Organisatorische wijzigingen
- Communiceren via Infographics
- Combineren van data, visualisatie en een verhaal.

7A. Data Quality & BI/DW – Not yet a marriage made in heaven

Nigel Turner, Principal Information Management Consultant, Global Data Strategy

The close links between data quality and business intelligence & data warehousing (BI/DW) have long been recognised. Their relationship is symbiotic. Robust data quality is a keystone for successful BI/DW; BI/DW can highlight data shortcomings and drive the need for better data quality. A key driver for the invention of data warehouses was that they would improve the integrity of the data they store and process.



Despite this close bond between these data disciplines, their marriage has not always been a successful one. Our industry is littered with failed BI/DW projects, with an inability to tackle and resolve underlying data quality issues often cited as a primary reason for failure. Today many analytics and data science projects are also failing to meet their goals for the same reason.

Why has the history of BI/DW been plagued with an inability to build and sustain the solid data quality foundation it needs? This presentation tackles these issues and suggests how BI/DW and data quality can and must support each other. The Ancient Greeks understood this. We must do the same. This session will address:

- What is data quality and why is it the core of effective data management?
- What can happen when it goes wrong – business and BI/DW implications
- The synergies between data quality and BI/DW
- Traditional approaches to tackling data quality for DW/BI
- The shortcomings of these approaches in today's BI/DW world
- New approaches for tackling today's data quality challenges
- Several use cases of organisations who have successfully tackled data quality & the key lessons learned.

7B. De nieuwe business intelligence wereld: van Batch naar Lambda en Kappa (Dutch spoken) **Rutger Rienks, Thought Leader Data Strategy, KPN**

Met de komst van cloud computing is het mogelijk geworden om data sneller te verwerken en infrastructuur mee te laten schalen met de benodigde opslag en cpu capaciteit. Waar voorheen batch computing de norm was en grote datawarehouses werden ontwikkeld, zien we een transitie naar data lakes en real-time verwerking. Eerst kwam de lambda architectuur die naast de batch processing een streaming processing layer toevoegde. En sinds 2014 zien we dat de kappa architectuur de batch processing layer uit de lambda architectuur helemaal weglaat.

Deze presentatie gaat in op Kappa architecturen. Wat zijn de voor- en nadelen van het verwerken van data langs deze architectuur ten opzichte van de oude batch verwerking of de tussentijdse lambda architectuur? Dit vraagstuk zal worden behandeld aan de hand van ervaringen bij KPN met

een product gebaseerd op een Kappa architectuur: de Data Services Hub.

Centraal bij de beantwoording staan de aspecten die tegenwoordig worden toebedeeld aan innovatieve technologieën: homogenisatie en ontkoppeling, modulariteit, connectiviteit, programmeerbaarheid en het kunnen profiteren van 'gebruikers' sporen.

- Creëren van informatie en kennis uit data
- Hoe verhouden dashboarding en machine-learning in een streaming context zich ten opzichte van de oude meer bekende batch processing way of working?
- Wat betekenen MQTT, Pulsar, Spark en Flink?
- De waarde van centrale pub-sub message bussen, zoals Kafka of Rabbit MQ.

8. Developing your own Enterprise Data Marketplace (Dutch spoken)

Rick van der Lans, Managing Director, R20/Consultancy

We have known public data marketplaces for a long time. These are environments that provide all kinds of data products that can be purchased or used. In recent years, organizations have started to develop their own data marketplace: the enterprise data marketplace. An EDM is developed by its own organization and supplies data products to internal and external data consumers. Examples of data products are reports, data services, data streams, batch files, etcetera. The essential difference between an enterprise data warehouse and an enterprise data marketplace is that with the former users are asked what they need and with the latter it is assumed that the marketplace owners know what the users need. Or in other words, we go from demand-driven to supply-driven. This all sounds easy, but it isn't at all. In this session, the challenges of developing your own enterprise data marketplace are discussed.

- Challenges: research, development, marketing, selling, payment method
- Is special technology needed for developing a data marketplace?
- Differences between data warehouses and marketplaces
- Including a data marketplace in a unified data fabric
- The importance of a searchable data catalog.

PUTTING MACHINE LEARNING TO WORK

Translating Organizational Challenges into Supervised & Unsupervised Learning Solutions

Supervised learning solves modern analytics challenges and drives informed organizational decisions. Although the predictive power of machine learning models can be very impressive, there is no benefit unless they inform value-focused actions. Models must be deployed in an automated fashion to continually support decision making for residual impact. And while unsupervised methods open powerful analytic opportunities, they do not come with a clear path to deployment. This course will clarify when each approach best fits the business need and show you how to derive value from both approaches.

Regression, decision trees, neural networks – along with many other supervised learning techniques - provide powerful predictive insights when historical outcome data is available. Once built, supervised learning models produce a propensity score which can be used to support or automate decision making throughout the organization. We will explore how these moving parts fit together strategically. Unsupervised methods like cluster analysis, anomaly detection, and association rules are exploratory in nature and don't generate a propensity score in the same way that supervised learning methods do. So how do you take these models and automate them in support of organizational decision-making? This course will show you how. This course will demonstrate a variety of examples starting

with the exploration and interpretation of candidate models and their applications. Options for acting on results will be explored. You will also observe how a mixture of models including business rules, supervised models, and unsupervised models are used together in real world situations for various problems like insurance and fraud detection.

You Will Learn

- When to apply supervised versus unsupervised modeling methods
- Options for inserting machine learning into the decision making of your organization
- How to use multiple models for estimation and classification
- Effective techniques for deploying the results of unsupervised learning
- Interpret and monitor your models for continual improvement
- How to creatively combine supervised and unsupervised models for greater performance

Who is it for?

Analytic Practitioners, Data Scientists, IT Professionals, Technology Planners, Consultants, Business Analysts, Analytic Project Leaders.



Course description

Model Development Introduction

- Current Trends in AI, Machine Learning and Predictive Analytics
 - Algorithms in the News: Deep Learning
 - The Modeling Software Landscape
 - The Rise of R and Python: The Impact on Modeling and Deployment
 - Do I Need to Know About Statistics to Build Predictive Models?

Strategic and Tactical Considerations in Binary Classification

- What is an Algorithm?
- Is a "Black Box" Algorithm an Option for Me?

WORKSHOP

APRIL 1 - 2, 2019



- Issues Unique to Classification Problems
 - Why Classification Projects are So Common
 - Why are there so many Algorithms?

Data Preparation for Supervised Models

- Data Preparation Law
- Integrate Data Subtasks
 - Aggregations: Numerous Options
 - Restructure: Numerous Options
 - Data Construction
 - Ratios and Deltas
 - Date Math
 - Extract Subtask

The Tasks of the Model Phase

- Optimizing Data for Different Algorithms
- Model Assessment
 - Evaluate Model Results
 - Check Plausibility
 - Check Reliability
 - Model Accuracy and Stability
 - Lift and Gains Charts
- Modeling Demonstration
 - Assess Model Viability
 - Select Final Models
- Why Accuracy and Stability are Not Enough
- What to Look for in Model Performance
- Exercise Breakout Session
 - Select Final Models
 - Create & Document Modeling Plan
 - Determine Readiness for Deployment
- What are Potential Deployment Challenges for Each Candidate Model?

What is Unsupervised Learning?

- Clustering
- Association Rules
- Why most organizations utilize unsupervised methods poorly
 - Case Study #1: Finding a new opportunity
 - Case Studies 2, 3, and 4: How do supervised and unsupervised work together
 - Exercise Breakout Session: Pick the right approach for each case study
- Data Preparation for Unsupervised
 - The importance of standardization
 - Running an analysis directly on transactional data

- Unsupervised Algorithms:
 - Hierarchical Clustering
 - K-means
 - Self-Organizing Maps
 - K Nearest Neighbors
 - Association Rules
- Interpreting Unsupervised
 - Exercise Breakout Session: Which value of K is best?
 - Choosing the right level of granularity
 - Reporting unsupervised results

Wrap-up and Next Steps

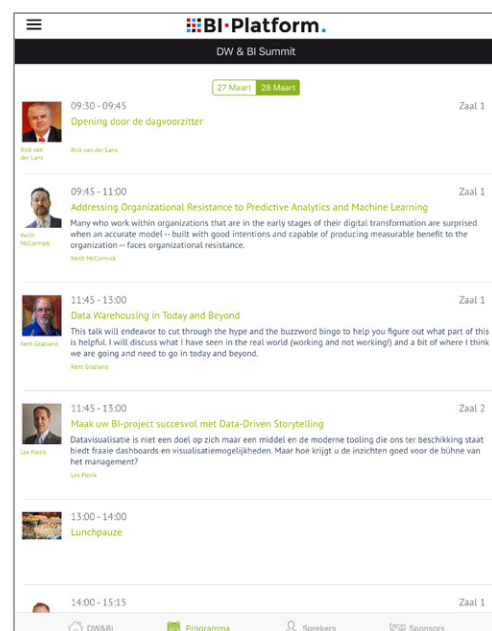
- Supplementary Materials and Resources
- Conferences and Communities
- Get Started on a Project!
- Options for Implementation Oversight and Collaborative Development

LOOK FOR DETAILED INFORMATION ON
WWW.ADEPTEVENTS.NL/WML-EN

CONFERENCE-APP



Download the DW&BI Summit Conference-App (integrated in the BI-Platform app)



INFORMATION

DATA WAREHOUSING & BUSINESS INTELLIGENCE

SUMMIT 2019



DATE AND TIME

The conference will take place on March 27 - 28, 2019 and the programme starts at 9:30 am and ends at 5:15 pm on both conference days. Registration commences at 8.30 am and we recommend that you arrive early.

VENUE

The conference will be held at the Van der Valk Hotel in Utrecht. Always check our website or conference app prior to your departure to ensure you have the exact location and directions.

Van der Valk Hotel Utrecht
Winthontlaan 4-6
3526 KV Utrecht

Contact details hotel:
Tel. (+31)30 8000800
E-mail: utrecht@valk.nl
Website hotel: www.vandervalkhotelutrecht.nl

On the **hotel website** you can find a full itinerary and directions. The hotel is located on a 35 minutes drive from Amsterdam Schiphol Airport and is also easily accessible by public transport.

HOW TO REGISTER

Please register online at www.dwbisummit.com. For registering by print, please scan the completed registration form and send this to customerservice@dwbisummit.com. 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

	Full conference	One day
Best rate (ends December 31, 2018)*:	€ 1139	€ 586,50
Early registration (January 1 – February 20, 2019):	€ 1206	€ 621
Regular registration (February 21 – March 27, 2019):	€ 1340	€ 690

The registration fee for the workshop *Putting Machine Learning to Work*, when combined with attending the conference, is € 1363 and € 1226.70 when registering early.

*)Invoice will be sent in year 2019. Upon request we can send the invoice in year 2018.

Members of the the Dutch KNVI BI&A as well as DAMA are eligible for 10 percent discount on the registration fee. All prices are VAT excluded.

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.

PAYMENT

Full payment is due prior to the conference. 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. For Credit Card payment please contact our office by e-mail mentioning your phone number so that we can obtain your credit card information.

CANCELLATION POLICY

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

CANCELLATION LIABILITY

In the unlikely event of cancellation of the conference 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 conference.

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MORE INFORMATION



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