Modernizing Data Ecosystems to Enable Data Value, Analytics, and Business Transformation
MAY 9–10 / HILTON CHICAGO

The TDWI Executive Summit in Chicago brings together expert speakers, case studies, and panel discussions to help you understand the many options your organization has for modernizing key data ecosystems for warehousing, reporting, and analytics.

More information visit tdwi.org/CHEXEC16
UNRIVALED BREADTH AND DEPTH OF BUSINESS INTELLIGENCE & ANALYTICS EDUCATION
From Experience to Action

For more than 20 years, TDWI has been accelerating the transformation of data into intelligence, insight, and impact through in-depth, practical education. Our events provide a unique end-to-end learning experience designed to bring you from foundational concepts and best practices to hands-on skills that you can put to work immediately back in the office.

Featured Tracks and Courses

Blending Business and IT Leadership
- TDWI Performance Management: Dashboards, Scorecards, and Metrics for Real Business Impact
- The Secrets of Analytical Leaders: The Keys to Succeeding with BI and Analytics
- Practical Techniques for Aligning Business and IT: Navigating Politics and Culture
- Creating an Analytically Driven Enterprise: Implementing an Analytics Program
- Internet of Things: Developing Winning Strategy, Road Map, and Leadership Methodologies

Analytics
- TDWI Predictive Analytics Fundamentals
- Self-Service BI and Analytics: Turning the Promise into Reality
- Real Time, Right Now! A Landscape of the World of Streaming Analytics
- Gain the Competitive Edge with Customer Analytics: Your Customers are Talking to You. Are You Listening?
- Serious Play for Predictive Analytics: What Works, What Doesn’t, and Why

Big Data
- TDWI Big Data Fundamentals: Creating Value from Non-Traditional Data Sets
- Demystifying Big Data: BI Isn’t Big Data and Big Data Isn’t BI
- Advanced Hadoop: Solutions for Enterprise Applications
- From BI to IoT: One Architecture, Many Technologies
- Hands-on Hadoop

Data Management
- TDWI Data Quality Management: Techniques for Data Profiling, Assessment, and Improvement
- Data Preparation: Techniques and Tools for Analytics-Ready Data
- Delivering Data Faster: Innovations in Integration Tools
- Data Strategy I: A Corporate Plan for Data
- Internet of Things: Analytics and Data Management

TDWI Foundations
Each TDWI conference features the TDWI Foundations series. Each full-day course within this series is designed to give you the base skills and knowledge you need to succeed in business intelligence, performance management, analytics, data governance, and more.

What You Will Find at TDWI Chicago

FULL- AND HALF-DAY SESSIONS
More than 50 full- and half-day courses, from business intelligence basics to streaming analytics, integration in the world of big data, data preparation, and much more.

HANDS-ON LEARNING
Get hands-on experience with the latest tools and technologies, from Hadoop to data mining with R.

WORKSHOPS
Guided by an expert facilitator, learn to put concepts into actionable plans in a collaborative small-group environment.

EXHIBIT HALL
Connect with the leading providers of hardware, software, and services for BI, analytics, big data, data management, and more.

PEER NETWORKING
Each TDWI event offers a plethora of structured and unstructured peer networking opportunities so you can learn from others.

NIGHT SCHOOL
Just in case a full day of training is not enough, you can maximize your training dollars at informative night school sessions.

REGISTER at tdwi.org/CH2016  //  QUESTIONS? 425.277.9181 or education@tdwi.org
Keynote Presentations

Monday, May 9, 2016, 8:00 – 8:45 a.m.

**Information Everywhere—Ethics and Economics Emerge**

**Barry Devlin**
Founder and Principal
9sight Consulting

The mantra “if you can’t measure it, you can’t manage it” has driven business and business intelligence for many years. From a few gigabytes of business transaction data in the 1980s to multiple petabytes of real-time behavior and events today, we are finally reaching information nirvana. We can now measure almost everything, so managing should be straightforward, right?

Wrong. In fact, information has become so pervasive that it is undermining the very foundations of management, work, business, the economy, and, indeed, society. In this provocative talk, Dr. Barry Devlin, a founding father of data warehousing, steps beyond the myth that technology will solve all problems and explores some of the enormous challenges that all-inclusive information is creating.

Posing many questions and offering some unexpected answers, this talk invites all creators and users of information in your enterprise—in short, everybody—to take responsibility for the brave new world we are creating together.

Wednesday, May 11, 8:00 – 8:45 a.m.

**The Big Data Revolution**

**Robert Thomas**
VP, Product Development
IBM Analytics

Rob Thomas is vice president of product development in IBM Analytics where his scope includes IBM’s Hadoop, NoSQL, advanced analytics, business intelligence, machine learning, and data warehouse products. He brings extensive global experience in management, business development, and consulting in the high technology and financial services industries. Rob writes about technology for a variety of publications including *InfoWorld* and *Silicon Valley Business Ink*. His first book, *Big Data Revolution: What Farmers, Doctors, and Insurance Agents Can Teach Us about Patterns in Big Data*, was published in 2015.

Thursday, May 12, 8:00 – 8:45 a.m.

**Internet of Things: Separating Reality from Hyperbole**

**Eric Rogge**
IoT Advocate
Thingviews.com

Industry experts, pundits, academics, and others forecast vast economic potential for the Internet of Things (IoT). From predictive maintenance to smart cities to intelligent power grids, the idea of connecting devices to the Internet is intuitively promising. The reality is that IoT is not a single homogeneous system; it is a multihued fabric of technologies, potential uses, and economic value that will vary significantly from one situation to the next. Organizations will need to combine new business models, creative technology use, and common business sense to attain success.

Eric Rogge’s keynote moves beyond the hype and promise of IoT to examine how current IoT activities predict what is to come. It will walk through key innovations, dynamics, and relationships that will affect how IoT becomes part of our everyday lives.
## Agenda at a Glance

### SUNDAY
- **Breakfast**  
  8:00–9:00 a.m.
- **Sessions**  
  9:00 a.m.–12:15 p.m.
- **Lunch Break**  
  12:15–1:45 p.m.
- **Sessions**  
  1:45–5:00 p.m.

### MONDAY
- **Breakfast**  
  7:30–8:00 a.m.
- **Keynote Presentation**  
  8:00–8:45 a.m.
- **TDWI Executive Summit**  
  9:00 a.m.–5:00 p.m.
- **Sessions**  
  9:00 a.m.–12:15 p.m.
- **Lunch Break**  
  12:15–1:45 p.m.
- **Sessions**  
  1:45–5:00 p.m.
- **CBIP Exam Lab**  
  5:30–7:00 p.m.
- **Welcome Reception**  
  6:30–8:00 p.m.

### TUESDAY
- **Breakfast**  
  7:30–8:00 a.m.
- **Sessions**  
  8:00–11:15 a.m.
- **TDWI Executive Summit**  
  8:00 a.m.–5:00 p.m.
- **Exhibit Hall Open & Lunch**  
  11:15 a.m.–2:15 p.m.
- **Sessions**  
  2:15–5:30 p.m.
- **Exhibit Hall Open & Reception**  
  5:00–7:00 p.m.

### WEDNESDAY
- **Breakfast**  
  7:30–8:00 a.m.
- **Keynote Presentation**  
  8:00–8:45 a.m.
- **Sessions**  
  9:00 a.m.–12:15 p.m.
- **Exhibit Hall Open & Lunch**  
  12:15–2:15 p.m.
- **Sessions**  
  2:15–5:30 p.m.
- **Night School**  
  6:00–7:30 p.m.
- **CBIP Exam Lab**  
  6:00–7:30 p.m.

### THURSDAY
- **Breakfast**  
  7:30–8:00 a.m.
- **Keynote Presentation**  
  8:00–8:45 a.m.
- **Sessions**  
  9:00 a.m.–12:15 p.m.
- **Lunch Break**  
  12:15–1:45 p.m.
- **Sessions**  
  1:45–5:00 p.m.
- **Night School**  
  5:30–7:00 p.m.
- **CBIP Exam Lab**  
  5:30–7:00 p.m.

### FRIDAY
- **Breakfast**  
  7:30–8:00 a.m.
- **Sessions**  
  8:00–11:15 a.m.
- **Lunch Break**  
  11:15 a.m.–12:15 p.m.
- **Sessions**  
  12:15–3:30 p.m.
- **CBIP Exam Labs**  
  8:00 a.m.–2:00 p.m.

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Agenda

**SUNDAY** May 8

**COURSE OFFERINGS**

- S1 - [cbip](#) [A] p. 6
  - TDWI Business Intelligence Principles and Practices: Charting the Course to BI Success
  - N. Williams

- S2 - [cbip](#) [A] p. 6
  - TDWI Performance Management: Dashboards, Scorecards, and Metrics for Real Business Impact
  - D. Larson

- S3 - [cbip](#) [A] p. 6
  - TDWI Big Data Fundamentals: Creating Value from Non-Traditional Data Sets
  - A. Fuller

- S4 - [cbip](#) [A] p. 7
  - TDWI Dimensional Data Modeling Primer: From Requirements to Business Analysis
  - M. Peco

- S5 - Business Information and Modern BI: Balancing OLAP, Analytics, and Performance Management
  - C. Adamson

- S6A NEW! [A] p. 7
  - Business Analytics Centers of Excellence: Creating Federated and Grassroots Organizational and Governance Models
  - W. Eckerson

- S6P UPDATED [A] p. 7
  - The Secrets of Analytical Leaders: The Keys to Succeeding with BI and Analytics
  - W. Eckerson

**MONDAY** May 9

**COURSE OFFERINGS**

- M1 - [cbip](#) [A] p. 8
  - TDWI Analytics Fundamentals
  - C. Adamson

- M2 - [cbip](#) [A] p. 8
  - TDWI Data Visualization Fundamentals
  - D. Larson

- M3 - [cbip](#) [A] p. 8
  - Dimensional Modeling Beyond the Basics: Intermediate and Advanced Techniques
  - L. Reeves

- M4 - [cbip](#) [A] p. 9
  - Data Modeling in the Age of Big Data
  - A. Fuller

- M5A NEW! [A] p. 9
  - Self-Service BI and Analytics: Turning the Promise into Reality
  - W. Eckerson

- M5P NEW! [A] p. 9
  - Visualization Best Practices and Design Standards: Creating a Common Visual Vocabulary
  - W. Eckerson

- M6A NEW! [A] p. 9
  - Demystifying Big Data: BI Isn’t Big Data and Big Data Isn’t BI
  - M. Madsen

- M6P NEW! [A] p. 10
  - Designing an Architecture for Data and Analytics
  - M. Madsen

  - CBIP Preparation for the Information Systems Core Exam
  - M. Peco

- M7P [cbip](#) [A] p. 10
  - CBIP Preparation for the Data Warehousing Exam
  - M. Peco

**TUESDAY** May 10

**COURSE OFFERINGS**

- T1 - [cbip](#) [A] p. 11
  - TDWI Predictive Analytics Fundamentals
  - J. Geiger

- T2 - [cbip](#) [A] p. 11
  - Practical Techniques for Aligning Business and IT: Navigating Politics and Culture
  - L. Silverston

- T3 - [cbip](#) [A] p. 11
  - Hands-on: Data Mining with R
  - D. Larson

- T4 - Understanding Hadoop
  - K. Krishnan

- T5 NEW! [cbip](#) [A] p. 12
  - From BI to IoT: One Architecture, Many Technologies
  - B. Devlin

- T6A TDWI Data Warehouse Automation: Better, Faster, Cheaper ... You Can Have It All
  - J. Myers

  - TDWI Data Virtualization: Solving Complex Data Integration Challenges
  - J. Myers

  - Data Discovery, Exploration, and More: The Latest Innovations in Analysis and BI Tools
  - M. Madsen

- T7P NEW! [cbip](#) [A] p. 13
  - Delivering Data Faster: Innovations in Integration Tools
  - M. Madsen

**EXPERIENCE KEY**

Some classes cover more than one topic. Primary focus is listed first.

- Analytics
- Big Data
- Data Management
- Blending Business & IT Leadership
- Foundations
- CBIP

Recommended courses to help with CBIP certification exam prep.
### Agenda

#### WEDNESDAY May 11

**COURSE OFFERINGS**

- **W1** NEW!  
  Advanced Hadoop: Solutions for Enterprise Applications  
  K. Krishnan  
  p. 13

- **W2** UPDATED  
  Data Preparation: Techniques and Tools for Analytics-Ready Data  
  D. Wells  
  p. 13

- **W3A**  
  TDWI Data Governance Fundamentals: Managing Data as an Asset  
  J. Geiger  
  p. 14

- **W3P**  
  TDWI Data Governance Innovations: Adapting for Agile, Big Data, and Cloud  
  J. Geiger  
  p. 14

- **W4A**  
  Creating an Analytically Driven Enterprise: Implementing an Analytics Program  
  C. Imhoff  
  p. 14

- **W4P** NEW!  
  Gain the Competitive Edge with Customer Analytics: Your Customers Are Talking To You. Are You Listening?  
  C. Imhoff  
  p. 14

- **W5A**  
  Data Strategy I: A Corporate Plan for Data  
  E. Levy  
  p. 15

- **W5P**  
  Data Strategy II: Developing the Road Map  
  E. Levy  
  p. 15

- **W6A** NEW!  
  Real Time, Right Now! A Landscape of the World of Streaming Analytics  
  J. Myers  
  p. 16

- **W6P** NEW!  
  Build vs. Buy: How to Avoid Disaster in Your Streaming Analytics Strategy  
  J. Myers  
  p. 16

- **W7A** NEW!  
  The Internet of Things: Analytics and Data Management  
  E. Rogge  
  p. 16

- **W7P** NEW!  
  The Internet of Things: Developing Winning Strategy, Road Map, and Leadership Methodologies  
  A. Razvi, L. Silverston  
  p. 16

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### THURSDAY May 12

**COURSE OFFERINGS**

- **TH1**  
  TDWI BI Program Management: A Competency Center Approach to BI Excellence  
  W. McKnight  
  p. 17

- **TH2**  
  TDWI Data Integration Principles and Practices: Creating Information Unity from Data Disparity  
  R. Hines  
  p. 17

- **TH3**  
  Serious Play for Predictive Analytics: What Works, What Doesn’t, and Why  
  K. McCormick  
  p. 17

- **TH4**  
  The Emergent Analytics Organization: Strategies for Engaging in Disruptive Change  
  P. Flach  
  p. 18

- **TH5**  
  Hands-on Hadoop  
  K. Krishnan  
  p. 18

- **TH6A**  
  Data Integration Approaches, Technologies, and Alternatives  
  E. Levy  
  p. 18

- **TH6P**  
  Event Stream Processing: Adding Real-Time to the BI/DW Toolbox  
  E. Levy  
  p. 18

- **TH7A**  
  Emerging Technology for Advanced Analytics  
  M. Lampa  
  p. 19

- **TH7P**  
  Innovative Techniques for Advanced Analytics  
  M. Lampa  
  p. 19

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### FRIDAY May 13

**COURSE OFFERINGS**

- **F1**  
  TDWI Data Quality Management: Techniques for Data Profiling, Assessment, and Improvement  
  R. Hines  
  p. 19

- **F2**  
  Data Preparation for Predictive Analytics  
  K. McCormick  
  p. 20

- **F3**  
  Data Storytelling: The New Horizon in Business Analytics  
  T. Cuzzillo, D. Wells  
  p. 20

- **F4A**  
  Introduction to NoSQL for Those Used to SQL: Storing and Managing Operational Big Data  
  W. McKnight  
  p. 20

- **F4P**  
  Introduction to Graph Databases  
  W. McKnight  
  p. 20

- **F5A** NEW!  
  Working with Data Scientists  
  J. Camper  
  p. 21

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### EXPERIENCE KEY

Some classes cover more than one topic. Primary focus is listed first.

- **Analytics**
- **Big Data**
- **Data Management**
- **Blending Business & IT Leadership**
- **Foundations**

- **cbip** Recommended courses to help with CBIP certification exam prep.
**TDWI Business Intelligence Principles and Practices: Charting the Course to BI Success**

**Nancy Williams**

The BI life cycle spans a continuum that begins with large amounts of disparate data and stretches to encompass people, technology, information, analysis, and decision making. The benefits of BI are substantial: new business capabilities for insight, forecasting, planning, agility, and strategy execution.

Realizing benefits is challenging. With many moving parts—infrastructure, technology, data, integration, analytics, applications, metrics, reports, dashboards, scorecards—putting the pieces together in the most effective way is difficult. Learn the basics of BI from end to end, with special attention on two of the most important factors for BI success: planning and collaboration. You are most able to chart a course for BI success when teams and stakeholders share common concepts, use consistent terminology, and contribute collectively to the BI vision.

**YOU WILL LEARN**

- Meaningful and actionable definitions of BI
- Effective ways to deliver BI: Web, mobile, desktop, etc.
- Common kinds of BI reporting: ad hoc, published, enterprise, operational
- Performance management principles: dashboards, scorecards, KPIs
- Business analyst principles: OLAP, analytic modeling, data visualization
- Advanced analytics concepts for data mining, predictive analytics, and text analytics
- Data management practices: profiling, cleansing, quality management
- Data integration practices: consolidation, virtualization, data warehousing

**GEARED TO**

Anyone with a role in BI/DW programs who needs to understand the concepts and the full life cycle of BI; BI/DW managers and leaders seeking to increase the value and business impact of a BI program; business and technical people who need to work together to implement BI; teams that need to develop a common base of concepts and terminology for BI.

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**TDWI Performance Management: Dashboards, Scorecards, and Metrics for Real Business Impact**

**Deanne Larson**

Performance management (PM) is a core practice in business management today, and it ranks high among the value opportunities of business intelligence. Using data to set goals and measure performance is a proven key to business success. Performance management strengthens the connection of tactics with strategy, and of operations with tactics—enabling feedback, monitoring, and accountability across all levels of business activity.

Dashboards and scorecards are the most effective ways to deliver business intelligence that drives performance management. A top-quality dashboard or scorecard looks deceptively simple, but creating simple and effective interfaces is surprisingly difficult. A powerful dashboard or scorecard involves the right indicators and metrics, the right visual elements, attention to relationships among visual elements, and the right kinds of click-through and user interaction. Further complexity arises when you work with groups of related scorecards and dashboards that must fit together to form an integrated performance management system.

You will learn:

- Design techniques for dashboards and scorecards
- When to use scorecards and when to use dashboards
- How to integrate dashboards and scorecards including cascading and drill-in
- How to choose the right indicators, metrics, and visual elements for dashboards and scorecards
- Data management techniques for scorecards and dashboards

**GEARED TO**

Business and data analysts; BI and analytics program and project managers; BI and data warehouse architects, designers, and developers; anyone with a role in defining, creating, or applying business metrics.
TDWI Dimensional Data Modeling Primer: From Requirements to Business Analysis

Mark Peco

Dimensional data is a core component of modern business intelligence and data warehouse implementations. Dimensionally organized data offers a more effective and adaptable solution to business analytics needs than can be achieved with relational data structures. Virtually anyone involved in business intelligence and data warehousing projects needs to have fundamental knowledge of the pathway from business questions to business analytics. This course traces that pathway.

The course begins with a comparison of relational and dimensional data organization and provides an example of business questions not readily answered using the more traditional data structures of relational modeling. It then illustrates the steps to design analytic solutions, starting from business questions and concluding by demonstrating an OLAP solution. These steps encompass techniques to capture business questions, represent them as a business solution, translate them into a technology solution, and deliver them to those who need information.

YOU WILL LEARN
- Concepts of dimensional data modeling
- The relationship between business metrics and dimensional data
- Similarities and differences between relational and dimensional data models
- Requirements-gathering techniques for business metrics and dimensional data
- How to build a logical dimensional model
- How to translate a logical dimensional model to a star schema design
- How dimensional data is used to deliver business analytics and OLAP capabilities

GEARED TO
Data architects; data mart developers; business analysts; business intelligence and data warehouse program and project managers

S6A NEW!

Business Analytics Centers of Excellence: Creating Federated and Grassroots Organizational and Governance Models

Wayne Eckerson

The key to business analytics success is having the right people in the right roles reporting to the right managers, with strong sponsorship and governance oversight. This applies not only to the corporate business intelligence and data warehousing teams but also to the extended BI organization, comprised of business analysts, data scientists, project managers, and divisional CIOs and IT teams. Yet, in most companies, the organizational architecture supporting business analytics is suboptimal.

This session will discuss how to build a center of excellence for business analytics that enables organizations to optimize data for decision making. It will discuss how to create a federated BI team, blend corporate and divisional resources, create matrixed reporting environments, and implement adequate governance and oversight. It will also show how the shift to big data is changing traditional BI job roles.

YOU WILL LEARN
- How to create a center of excellence for BI and analytics
- How to create a federated BI organization
- How to blend corporate and divisional resources
- How to create matrixed reporting structures
- How to implement a BI council that provides governance and oversight

S6P UPDATED

The Secrets of Analytical Leaders: The Keys to Succeeding with BI and Analytics

Wayne Eckerson

How do you bridge the worlds of business and technology? How do you harness big data for business gain? How do you deliver value from analytical initiatives? Based on Wayne’s book, Secrets of Analytical Leaders: Insights from Information Insiders, this session will unveil the success secrets of top information leaders from companies such as Zynga, Netflix, US Xpress, Nokia, Capital One, Kelley Blue Book, and Blue KC, among others. The session will cover both the “soft stuff” of people, processes, and projects and the “hard stuff” of architecture, tools, and data required to create and sustain a successful analytics program.
YOU WILL LEARN
• How to deliver value quickly
• How to span business and technology
• How to manage change
• How to translate insights into business impact
• How to create an agile data warehouse

GEARED TO
CxOs who want to create data-driven organizations with a strong analytical culture; business unit heads and data analysts who want better data and tools to drive insights and more business-savvy IT people; CIOs and VPs of IT who want to design business-centric data and analytical architectures and form robust BI or analytical centers of excellence; directors of BI, advanced analytics, and data warehousing who want to align more closely with business unit leaders, managers, and analysts; data architects, requirements analysts, and BI/ETL tools developers who want to maximize their effectiveness and improve their career opportunities

TDWI Analytics Fundamentals

Chris Adamson

Analytics is a hot topic, but also a complex topic. This continuously growing field now includes descriptive, diagnostic, predictive, and prescriptive analytics. Applied analytics including optimization, simulation, and automation expand the scope. Data growth also fuels the complexity—unstructured data, big data, social data, data streams, and more. Advanced analytics continues to expand with complex event processing, machine learning, cognitive computing, etc.

In the growing and evolving world of analytics, we’re also experiencing a shift of roles and responsibilities. The “data things” that were once seen as IT responsibilities have become critical business skills. Analytics spans a continuum that encompasses IT departments, data scientists, data analysts, business analysts, business managers, and business leadership. It seems that everyone has a stake in analytics. Coordination, cross-functional analysis, data sharing, and governance all become important skills.

YOU WILL LEARN
• The concepts and practices of analytic modeling
• An analytics topology to make sense of the variety of analytic types and techniques
• The data side of analytics including data sourcing, data discovery, data cleansing, and data preparation
• Analytic techniques for exploration, experimentation, and discovery
• The human side of analytics: communication, conversation, and collaboration
• The organizational side of analytics: self-service, central services, governance, etc.
• A bit about emerging techniques and technologies shaping the future of analytics

GEARED TO
Business leaders and managers seeking to understand business dynamics through analytics; IT leaders and managers responsible to deliver and to support analytics initiatives; BI and analytics architects guiding the design, development, and deployment of analytics; BI and analytics designers and developers; Business analysts, data analysts, data scientists and those who aspire to these roles

TDWI Data Visualization Fundamentals

Deanne Larson

Data visualization has rapidly become a critical part of business analytics and business communications. Without visualization, the numbers and statistics of analytics are difficult to interpret and incomprehensible to many who need to turn data into knowledge. The advent of big data, with increasing volume and velocity of data, emphasizes visualization as a technique to compress large volumes of data into digestible presentations and observe streaming data in motion.

Elegant and well-designed data visuals often appear to be easy because skilled visual developers are able to hide the complexities and hard work behind the scenes. Business intelligence and business analytics professionals need to communicate as effectively in visual forms as they do with their verbal and written communications skills. Get started by learning the fundamentals of data visualization.

YOU WILL LEARN
• Visualization as a communication medium
• Preparing data for visualization
• Components of visualization
• Choosing and using charts and graphs
• Visual exploration and analysis
• Visual design techniques
• Extending visualization with infographics
• Visual storytelling
• Data visualization tools

GEARED TO
Business analysts and data analysts; data scientists and analytics modelers; business analytics leaders and managers; BI leaders and managers; anyone who develops charts and graphs to communicate about data

Dimensional Modeling Beyond the Basics: Intermediate and Advanced Techniques

Laura Reeves

You have done your homework. You have learned the fundamental dimensional modeling skills, and you have jumped into the first, second, and third project. Now what? Your modeling problems do not fit neatly into the textbook examples. Maybe you are stumped, or perhaps you think you have solved the problem correctly but need a second opinion.

This accelerated class will go beyond the fundamental questions to tackle some of the most commonly asked questions and address the most common mistakes that people make. This course is based on real-world experience in dealing with large data volumes and very complex models. The goal of this course is to equip you with the tools and knowledge to address your complex modeling challenges and meet your demanding business needs.

YOU WILL LEARN
• Advanced techniques for handling complex, real-life dimensional modeling problems
• How to weigh advantages and disadvantages of design options
• Guidelines for designing complex data marts
• Techniques to keep users involved in the modeling process
Data Modeling in the Age of Big Data

Aaron Fuller

The big data phenomenon expands the purpose and changes the role of data modeling. The level of uncertainty about data modeling in today’s data ecosystems is high. Most practitioners have more questions than answers. Has data modeling become obsolete? Does unstructured data make modeling impractical? Does NoSQL imply no data modeling? What are the implications of schema-on-read vs. schema-on-write for data modelers? Do entity-relationship and star-schema data models still matter?

Data modeling is still an important process—perhaps more important than ever before. But data modeling purpose and processes must change to keep pace with the rapidly evolving world of data. This course examines the principles, practices, and techniques that are needed for effective modeling in the age of big data.

YOU WILL LEARN

• To distinguish between data store modeling (schema-on-write) and data access modeling (schema-on-read) and when each is useful
• The elemental characteristics of data that provide a common denominator for data modeling for all types of data
• How the common denominator is used to map various kinds of databases including relational, dimensional, NoSQL, NewSQL, graph, and document
• When traditional logical-to-physical modeling works and when it makes sense to reverse the process as physical-to-logical
• Trade-offs between methodological rigor and discovery-driven exploration in data modeling

GEARED TO

Data architects; data modelers; database developers; data integrators; data analysts; report developers; anyone else challenged with the need to make structured enterprise data and nontraditional data sources work together

Self-Service BI and Analytics: Turning the Promise into Reality

Wayne Eckerson

Self-service business intelligence and analytics has been the holy grail of BI managers worldwide for the past two decades. Although BI tools have improved significantly, it is notoriously difficult to achieve the promise of self-service BI where business users get what they want—when they want it—and the corporate BI team eliminates its custom report backlog. So why is self-service BI so difficult? Why is it so hard to get users to adopt BI tools?

This session will provide tips and techniques for creating an analytical architecture that gives the right tools to the right people for the right tasks. It will show how there are many types of self-service BI experiences based on user expertise and requirements. Finally, it will show how to build a self-sustaining analytical cultural where business users, analysts, and BI professionals work collaboratively to support data-driven decision making.

YOU WILL LEARN

• How to create an inventory of business users
• How to map users to technology requirements
• How to segment BI tools by function and type
• How to design training and support programs that work
• How to increase user adoption

GEARED TO

Data modelers; database administrators; project managers; staging system developers; end-user application designers

Visualization Best Practices and Design Standards: Creating a Common Visual Vocabulary

Wayne Eckerson

The purpose of data visualization is not to hide the truth but to expose it, so business users quickly see what’s important and take action. Visual design standards create a common visual vocabulary throughout an organization, speeding business cognition and accelerating application development. The best visual standards embrace visualization best practices and ensure all applications conform to the same look, feel, and functional expressiveness.

YOU WILL LEARN

• How to apply best practices in visual display of quantitative information
• How to create visual design standards that accelerate development and maximize user adoption
• How to create a visual vocabulary for your organization
• How to develop visual standards that enable deeper, more rapid analytical insight and decisions
• How to leverage industry standards for visual design
• How to overcome limitations of your analytical tools in supporting a visual standard

Demystifying Big Data: BI Isn’t Big Data and Big Data Isn’t BI

Mark Madsen

Big data is hyped but it isn’t hype. There are definite technical, process, and business differences in the big data market when compared to business intelligence (BI) and data warehousing (DW), but they are often poorly understood or explained. BI isn’t big data and big data isn’t BI. By distilling the technical and process realities of big data systems and projects, we can separate fact from fiction. This session examines the underlying assumptions and abstractions we use in the BI and DW world, the abstractions that evolved in the big data world, and how they are different. Armed with this knowledge, you will make better design and architecture decisions.

The first part of the session will be an overview of the types, formats, and structures of data that aren’t normally in the DW realm. The second part will cover basic technology components, concepts, and architecture. This session is not “Hadoop for the database crowd,” despite the prominent role Hadoop plays. It will be technical but in a technology preview/overview fashion. You won’t be learning about Spark APIs or MapReduce jobs.

The goal is to provide an overview of the extent of data available and some of the nuances or challenges in processing it, coupled with some examples of tools or vendors that may be a starting point if you are building in a particular area.
YOU WILL LEARN

- Data architecture alternatives adaptable to today’s data realities
- New technologies that address problems inherent in the scope and scale of data today
- Methods and techniques to migrate from old data architectures to new architectures that resolve today’s problems and prepare for the future

GEARED TO
BI and analytics leaders and managers; data architects, modelers, and designers; big data architects, designers, and implementers; anyone with data management responsibilities who is challenged by recent and upcoming changes in the data landscape

Designing an Architecture for Data and Analytics
Mark Madsen
Data lakes, logical data warehouses, and analytical ecosystems—the problem designers need to solve isn’t big data or small data; rather, it’s all data. The data warehouse is sufficient for a portion of the data that designers manage but not all of it. The requirements we have today are to accept any data, not just rigidly structured data in rows and columns; to accept that data at any speed, not just what the database can keep up with; to deliver via any means, not just SQL-based business intelligence (BI) tools; and to support any process, not just queries but also algorithms and transformations. The technology that we use is problematic because it constrains and sometimes prevents necessary activities. We don’t need more technology and bigger machines; we need different technology that does different things. More product features from the same vendors won’t solve the problem.

The big data market defines itself as an alternative to the data warehouse, not realizing that new technologies solve different problems, and that they aren’t appropriate for some of the original problems. This is really confusing “technology” with “architecture.”

Architecture is more than just software. It starts from use and includes the data, methods of building and maintaining, and organization of people. We are in an emerging technology space when it comes to data. This requires exploratory design practices, something we’ve largely discarded over the last 10 years as data warehousing and BI matured.

YOU WILL LEARN

- Data architecture alternatives adaptable to today’s data realities
- New technologies that address problems inherent in the scope and scale of data today
- Methods and techniques to migrate from old data architectures to new architectures that resolve today’s problems and prepare for the future

CBIP Preparation for the Information Systems Core Exam
Mark Peco
This course is designed for those who already have knowledge and experience in the field of information systems but would benefit from an interactive and informative review prior to testing. You’ll get ready to test through discussion, review of concepts and terminology, and sample exam questions. A CBIP-certified instructor who has experienced the examination process and can share tips and techniques to improve your performance on the exam will lead this class.

YOU WILL LEARN

- Concepts and terms used in the exam: technology and business, application system, data management, and systems development
- What constitutes the complete body of knowledge for the exam
- How to assess your knowledge and skill related to the body of knowledge
- What to expect during the examination process
- Techniques to improve your performance when taking the exam

CBIP Preparation for the Data Warehousing Exam
Mark Peco
This course is designed for those who already have data warehousing knowledge and experience but would benefit from an interactive and informative review prior to testing. You’ll get ready to test through discussion, review of concepts and terminology, and sample exam questions. A CBIP-certified instructor who has experienced the examination process and can share tips and techniques to improve your performance on the exam will lead this class.

YOU WILL LEARN

- Concepts and terms used in the exam: organization and methodology, architecture and technology, data modeling concepts, data integration, and implementation and operation
- What constitutes the complete body of knowledge for the exam
- How to assess your knowledge and skill related to the body of knowledge
- What to expect during the examination process
- Techniques to improve your performance when taking the exam

CBIP Preparation for the Data Warehousing Exam
Mark Peco
This course is designed for those who already have data warehousing knowledge and experience but would benefit from an interactive and informative review prior to testing. You’ll get ready to test through discussion, review of concepts and terminology, and sample exam questions. A CBIP-certified instructor who has experienced the examination process and can share tips and techniques to improve your performance on the exam will lead this class.

YOU WILL LEARN

- Concepts and terms used in the exam: organization and methodology, architecture and technology, data modeling concepts, data integration, and implementation and operation
- What constitutes the complete body of knowledge for the exam
- How to assess your knowledge and skill related to the body of knowledge
- What to expect during the examination process
- Techniques to improve your performance when taking the exam

GEARED TO
BI and analytics leaders and managers; data architects, modelers, and designers; big data architects, designers, and implementers; anyone with data management responsibilities who is challenged by recent changes in the data landscape

Enrollment is limited to 60 attendees.
TDWI Predictive Analytics Fundamentals
Jonathan Geiger

Predictive analytics is a set of techniques used to gain new knowledge from large amounts of raw data by combining data mining, statistics, and modeling. Predictive analytics goes beyond insight (knowing why things happen) to foresight (knowing what is likely to happen in the future). Predictive models use patterns in historical data to identify and quantify probabilities of future opportunities and risks. Virtually every industry—insurance, telecommunications, financial services, retail, healthcare, pharmaceuticals, and many more—uses predictive analytics for applications such as marketing, customer relationship management, fraud detection, collections, cross-sell and up-sell, and risk management.

This course introduces predictive analytics skills, which encompass a variety of statistical modeling techniques, including linear and logistic regression, time-series analysis, classification and decision trees, and machine-learning techniques. Beyond statistics skills, predictive analytics requires knowledge of problem framing, data profiling, data preparation, and model evaluation.

YOU WILL LEARN
• Definitions, concepts, and terminology of predictive analytics
• Common applications of predictive analytics
• How and where predictive analytics fits into a BI program and the relationships with business metrics, performance management, and data mining
• To distinguish among various predictive model types and understand the purpose and statistical foundations of each
• Organizational considerations for predictive analytics, including roles, responsibilities, and the need for business, technical, and management skills

GEARED TO
BI program managers, architects, and project managers; business analysts who want to extend from gaining insight to providing foresight; business managers who need new tools to help them shape the future of the business; anyone interested in the basics of predictive analytics

Hands-on: Data Mining with R
Deanne Larson

With the advent of big data, there is an increased focus on data mining and the value that can be derived from large data sets. Data mining is the process of selecting, exploring, and modeling large amounts of data to uncover previously unknown information for business benefit.

R is an open source software environment for statistical computing and graphics and is very popular with data scientists. R is being used for data analysis, extracting and transforming data, fitting models, drawing inferences, making predictions, plotting, and reporting results. Learn how to use R basics, working with data frames, data reshaping, basic statistics, graphing, linear models, nonlinear models, clustering, and model diagnostics.

YOU WILL LEARN
• How to configure the RStudio environment and load R packages
• How to use R basics such as basic math, data types, vectors, and calling functions
• How to use advanced data structures such as data frames, lists, and matrices
• How to use R base graphics
• How to use R basic statistics, correlation, and covariance
• How to use linear models such as simple linear regression, logistic regression
• How to use nonlinear models such as decision trees and Random Forests
• How to apply clustering using K-means
• How to complete model diagnostics

GEARED TO
Anyone interested in learning to use data mining techniques to find insights in data and who has at least some statistical and programming experience

Enrollment is limited to 40 attendees.

Practical Techniques for Aligning Business and IT: Navigating Politics and Culture
Len Silverston

When many organizations are asked why a BI or analytics effort failed, the most common answer is “politics.” And when these same organizations are asked why efforts were successful, human factors are most often mentioned as the key to success.

The way to get the most out of business intelligence and analytics is to put the most into it—and people are the most valuable resources we have in this data-driven world. To be successful, we must invest in and understand leading-edge techniques, tools, and practices that help develop strong personal relationships, effect positive cultural changes, and promote effective human dynamics.

This course provides case studies from a variety of BI efforts and shares critical aspects of why some organizations are successful while others are not. The course shares practical and powerful techniques that focus on human dynamics and personal relationships, two of the most important factors in BI and analytics success. Based upon decades of experience and research from a variety of sources, Len shares principles and specific techniques in BI and analytics environments regarding how to develop trust, how to understand and “model” motivations, how to develop sponsorship, how to move ahead the vision, and how to effectively resolve conflict.

Interactive exercises will allow participants to practice handling difficult issues that commonly arise in BI and analytics efforts, and we will apply the principles and techniques that leading organizations have used to create world-class solutions.

YOU WILL LEARN
• Key factors in developing strong personal relationships, affecting culture change, and attaining critical BI and analytics success
• Tools and principles to enable BI and analytics, such as keys to moving the program forward, developing trust, understanding motivation, developing sponsorship, and managing conflict
• Case studies demonstrating how these principles and techniques lead to BI and analytics success and examples where these techniques were missing
• Exercises allowing participants to practice overcoming challenges that BI and analytics professionals inevitably face

GEARED TO
Anyone involved in BI and analytics efforts in any capacity, including program and project managers, business sponsors and stakeholders, CIOs and chief data officers, management/executives involved in BI and analytics, and all project team members such as architects, designers, and developers.
**Understanding Hadoop**

Krish Krishnan

The advent of big data has changed the world of analytics forever. Big data challenges scalability and big data platforms reshape BI and analytics infrastructure. Hadoop has taken center stage in the big data revolution, and we'll all need to understand the platform, its ecosystem, and how to work with it. The enterprise adoption of Hadoop is met with mixed responses. Join us to learn Hadoop basics, understand the realities, sort out the conflicts, and find out where and how Hadoop fits into your BI and analytics future. We will discuss the ecosystem and its intricacies, look at where it will help, and discuss how companies have embraced its usage.

**YOU WILL LEARN**

- The what and why of Hadoop
- Hadoop components
- Technical architecture
- Core components (MapReduce, HDFS, YARN)
- Hadoop tools (Hbase, Hive, Pig, Mahout, Impala)
- Hadoop setup and configuration
- Hadoop administration and management
- Using Hadoop: applications and examples

**GEARED TO**

Architects, developers, anyone interested in Hadoop

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**From BI to IoT: One Architecture, Many Technologies**

Barry Devlin

With the Internet of Things we complete the journey from internally focused, largely historical data warehousing to externally driven, real-time decision making. New business opportunities and modern technologies grab the limelight. But are the needs so dissimilar that we need to rip and replace? Are the new technologies so different that we must forget all we knew about information management? If you accept the stories of some vendors and consultants, you need to adopt new technology, architectures, and methods wholesale.

The real answer is that we need a well-designed, modern architecture that can and should include all business needs and technical platforms, old and new, to deliver true cross-enterprise decision-making support. Dr. Barry Devlin draws on thirty years of experience to define and describe this common architecture, tooling choices, and implementation methods, based on his seminal book *Business unIntelligence—Insight and Innovation Beyond Analytics and Big Data*.

**YOU WILL LEARN**

- Business drivers and sample use cases—what is new and what is the same
- Conceptual and logical architectures—evolution instead of revolution
- Data, information, knowledge and meaning—from metadata to context-setting information
- Data warehouse, data lake, data reservoir—the good, the bad and today’s real solution
- The necessity for a pervasive process-driven approach
- How real people in real organizations make decisions
- Technology—good choices, focus areas for new tools, and hype to avoid
- A road map to moving from today’s BI-centric world to an all-inclusive new architecture

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**TDWI Data Warehouse Automation: Better, Faster, Cheaper ... You Can Have It All**

John Myers

Building a data warehouse is among the most labor-intensive and time-consuming activities of BI development. There are many moving parts—requirements, source data analysis, source-target mapping, data acquisition, data transformation logic, ETL design, database loading, scheduling, error handling—and getting it right the first time isn’t easy. When you finally do get it right, something changes. One of the most pervasive problems in BI today is the fact that data warehouses take too long to build and they are hard to change!

Data warehouse automation (DWA) is a relatively new class of technology that accelerates warehouse development and change cycles while simultaneously assuring quality and consistency. More than simply generating ETL scripts, DWA automates the entire life cycle from source system analysis to testing and documentation. Productivity gains, cost savings, and quality improvement are all possible with DWA.

**YOU WILL LEARN**

- Concepts, principles, and practices of data warehouse automation (DWA)
- The current state of DWA technology
- Automation opportunities and benefits when building or managing a data warehouse
- How to get started with DWA
- Best practices and mistakes to avoid with DWA

**GEARED TO**

CIOs and chief data officers, IT program managers, business sponsors and tech-savvy end users, BI program management, and BI CIC/COE staff

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**TDWI Data Virtualization: Solving Complex Data Integration Challenges**

John Myers

The data integration landscape has changed radically the past few years. What was once a relatively manageable problem of blending and unifying data from enterprise transaction systems has grown to encompass external data, Web data, clickstream data, end-user data, big data, cloud data, and more. New expectations for information-driven business agility further compound the complexities of modern data integration. The ETL-based data warehouse is no longer enough. Data virtualization is a core component of next-generation data integration architectures, techniques, and technology.

Get ready to expand your data integration capabilities, deliver business-speed information, and make the most of recent advances in data integration technology. Through a combination of lecture, exercises, and case study review, you will learn how data virtualization works and how to position it in your data integration architecture and processes.
YOU WILL LEARN
• Data virtualization definitions and terminology
• Business case and technical rationale for data virtualization
• Key concepts and foundational principles of virtualization—views, services, etc.
• Data virtualization life cycle, capabilities, and processes
• How to extend the data warehouse with virtualization
• How virtualization enables federation and enterprise data integration
• How virtualization is applied to big data and cloud data challenges
• How companies use virtualization to solve business problems and drive business agility

GEARED TO
BI, MDM, and data warehousing program and project managers; data integration architects, designers, and developers; data and technology architects

T7P NEW!

Delivering Data Faster: Innovations in Integration Tools
Mark Madsen

Data integration is usually the slowest and most complex part of any data environment, whether it’s a one-off analytics project done by end users or a data warehouse built by IT. The market for data integration is in the midst of change as new technologies challenge assumptions about how integration should be done and who can do the work. It’s now possible for analysts to access, clean, and analyze data without IT involvement.

This course focuses on some of the tools and technologies that speed up the process of delivering data to users. Some of these are analyst focused, like self-service data preparation and analysis tools. Others are focused on challenges in the technology architecture, enabling IT to make data available more quickly.

Topics in this session include self-service data integration, data preparation, exploratory profiling, data virtualization, automation, testing and test data management, making streaming data available to nonprogrammers, and rethinking assumptions about data integration and architecture. This course will include demos of some of the tools discussed.

YOU WILL LEARN
• The latest innovations for integrating and preparing data
• How these new technologies fit into your environment
• What to look for when evaluating these new technologies

GEARED TO
Architects, analysts, and BI managers who want to understand the new integration technologies

T7A NEW!

Data Discovery, Exploration, and More: The Latest Innovations in Analysis and BI Tools
Mark Madsen

The business intelligence (BI) market has changed. The era of “one size fits all” BI tools and complex enterprise BI stacks is ending, shaken up by new technologies that give analysts and end users new capabilities. The goal of “information for everyone” is more achievable than it was in the past, but it comes with trade-offs like complexity, changes to data architecture, and different operational environments.

This course will provide a framework for data and analysis tools to help identify gaps and choose new tools. The session will review some of the latest innovations and tools that offer new capabilities and new ways of using data. Topics include data discovery and exploration; the role of search in both the BI front end and as an engine behind tools; collaboration in BI environments; streaming data and real-time monitoring; cloud and SaaS deployment; graph and network analysis; and text analytics. This course will include demos on various topics.

YOU WILL LEARN
• The latest innovations for delivering and analyzing data
• How these new technologies fit into your environment
• What the market adoption of these capabilities is today
• How to determine what technologies to evaluate and what to look for when evaluating them

GEARED TO
BI directors; business analysts; architects; BI application owners

W2 UPDATED

Data Preparation: Techniques and Tools for Analytics-Ready Data
Dave Wells

The once simple world of data preparation—ETL for operational data integration—has become increasingly complex. Terms such as data wrangling and data blending indicate some of the challenges. The exciting work of analytics doesn’t work well until the data is ready for meaningful analysis. The scope of big data, the variety of data uses, and the emergence of business-friendly data visualization and analysis tools all contribute to the complexity.

A recently emerged category of technologies helps to meet the challenges with business-friendly tools for data integration and preparation. When your analytics projects spend more time finding and fixing data than analyzing it, you really need to make a change. Learn about the tools and techniques that can help individuals and
teams—both business and technical—to cleanse, combine, format, and sample data for analytics.

**YOU WILL LEARN**

• The common challenges of data preparation in the age of big data
• Techniques for data preparation that improve both speed and quality of analytics activities
• The business case and the technical case for data preparation tools
• The data management and governance benefits of data preparation technologies
• The landscape of tools and technologies for modern data preparation

**GEARED TO**

Business managers, business analysts, data analysts, and data scientists who need to accelerate and simplify data preparation activities; BI and analytics developers who face the daily challenges of complex data preparation; technical managers and architects who need to integrate data preparation technologies into the BI and analytics toolkit; everyone who struggles with getting the right data in the right forms for effective analytics.

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**W3A**

**Wednesday, May 11, 9:00 a.m.—12:15 p.m.**

**Data Management, Foundations**

**TDWI Data Governance Fundamentals: Managing Data as an Asset**

**Jonathan Geiger**

Data is a critical resource for every organization. We depend on data every day to keep records, produce reports, deliver information, monitor performance, make decisions, and much more. The data resource is on par with financial and human resources as a core component of doing business, yet data management practices are often quite casual. Data governance brings the same level of discipline to data management as is typical when managing financial and human resources.

Building a data governance program is a complex process that focuses people, processes, policies, rules, and regulations to achieve specific goals for a managed data resource. Successful and effective data governance depends on clear goals and well-executed activities that match governance practices to your organization’s needs, capabilities, and culture. A continuously evolving program is necessary to keep pace with trends such as cloud services, big data, and agile development. This course provides fundamental understanding of data governance concepts and techniques that is essential to start a new governance program or evolve an existing program.

**YOU WILL LEARN**

• Definitions and dimensions of data governance
• Key considerations and challenges in building a data governance program
• The practices, roles, skills, and disciplines essential to data governance
• The qualities that make good data stewards and stewardship organizations
• The processes of developing, executing, and sustaining data governance
• Activities, issues, and options when building a data governance program
• How maturity models are applied for data governance
• The importance of adapting data governance for trends such as big data, cloud services, and agile development methods

**GEARED TO**

Data quality and data governance professionals; BI/DW managers, architects, designers, and developers; data stewards, data architects, and data administrators; anyone with a role in data governance or data quality management.

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**W3P**

**Wednesday, May 11, 2:15—5:30 p.m.**

**Data Management, Foundations**

**TDWI Data Governance Innovations: Adapting for Agile, Big Data, and Cloud**

**Jonathan Geiger**

Rapid increases in data variety and data management practices challenge the old model of policy- and enforcement-based data governance. Cloud services bring new issues that go well beyond the obvious concerns of security and privacy. Big data implementation brings substantial changes to the scope and complexity of governance. Many ask if governance and agile can coexist. The answer must be yes, but making them work together is especially challenging.

Cloud services, big data, and agile BI are here to stay. Data governance programs must modernize and adapt to these realities. A fundamental culture change from control-oriented governance to collaboration is at the core of modern data governance—shifting from enforcement to prevention and intervention as the means to assure data security, privacy, compliance, quality, and value. Beyond cultural change, every data governance participant needs to understand the new issues and the new opportunities that arise from current trends in data management.

**YOU WILL LEARN**

• The data governance challenges and opportunities that arise from cloud services
• Risks, challenges, and opportunities of big data governance
• How to overcome apparent conflicts between data governance and agile
• Roles, relationships, and complexities of metadata management for data governance
• Data governance challenges that arise from mobile devices and social media
• The importance of ethics as a data governance imperative
• New models, practices, and processes for modern data governance

**GEARED TO**

Data quality and data governance professionals; CIOs, business leaders, and IT executives facing the realities of agile, big data, or cloud services; managers, architects, designers, and developers of BI, MDM, and data warehousing systems; data stewards, data architects, and data administrators; anyone with a role in data governance or data quality management; anyone needing to modernize a data governance program for agile BI, big data, or cloud services.

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**W4A**

**Wednesday, May 11, 9:00 a.m.—12:15 p.m.**

**Blending Business & IT Leadership, Analytics**

**Creating an Analytically Driven Enterprise: Implementing an Analytics Program**

**Claudia Imhoff**

Analytics has become the darling of vendors, consultants, and the press. In addition, data scientists are now highly sought after. Yet, the adoption rate for analytics and BI is still hovering between 20% and 30% in most enterprises. What is the problem? How can we improve the adoption of these critical decision support functions? What is needed to implement a successful analytics program?

These are some of the questions to be answered in this timely presentation by Dr. Claudia Imhoff. Getting an analytics program up and running requires several considerations.

**YOU WILL LEARN**

• The need for analytics and enterprise strategy for acceptance
• Education—not just training
• The new way we work
• The data scientist, data priest, data interpreter, data engineer—who wins?
You will learn

• The ultimate goal—comprehension by the executives on how analytics can impact them and the company

W4P NEW!

Wednesday, May 11, 2:15–5:30 p.m.
Blending Business & IT Leadership, Analytics

Gain the Competitive Edge with Customer Analytics: Your Customers Are Talking to You. Are You Listening?

Claudia Imhoff

Customer analysis has become a significant differentiator for today’s competitive businesses. Top organizations improve customer satisfaction, loyalty, and profitability by creating positive end-to-end experiences for their customers. But there’s a catch.

Ever-evolving marketplaces and novel ways of communicating with customers mean businesses must also take into account myriad communication channels and the capability for meaningful real-time communications. Leading companies embrace new ideas and best practices to differentiate themselves from their competitors with more sophisticated mechanisms for creating unique and enjoyable customer experiences.

This timely presentation examines how modern, forward-looking organizations take the long view when it comes to customer analytics.

You will learn

• How to design, implement, and manage customer analysis environments
• The challenges faced by companies today such as channel management, massive volumes of “unusual” customer data, and emerging and innovative technologies for analysis today
• Case studies from leading organizations in customer analytics
• Best practices to get started with and improve upon customer analysis environments.

W5A

Wednesday, May 11, 9:00 a.m.–12:15 p.m.
Blending Business & IT Leadership, Data Management

Data Strategy I: A Corporate Plan for Data

Evan Levy

Companies are dealing with exploding amounts of data, and a common belief is that volumes are doubling every two years. While most people agree that data is a corporate asset, there’s little discussion about how companies can ensure that data is being managed and used effectively. With the continued growth of IT budgets, it has become commonplace to challenge the value (and ongoing cost) of retaining data assets. Although most IT organizations are prepared to discuss their strategy with technology platforms, tools, and methodologies, few are equipped to discuss their goals and strategy for corporate data.

A successful data strategy isn’t just about data management, naming standards, or governance methods. It must support the goals and the execution details for ensuring the effective adoption and use of data assets. In this new class, Evan Levy discusses the details and reviews the activities that go into building a comprehensive data strategy.

You will learn

• The key components of an enterprise data strategy
• Aligning the strategy with your company’s goals and priorities
• The key tactical enablers that can elevate the visibility of a data strategy initiative
• Understanding the alternatives and determining the best fit for your company
• The analysis and construction activities involved in building your company’s data strategy

• Identifying the stakeholders and determining their roles in supporting the strategy
• Suggested approaches and techniques for conducting stakeholder interviews, along with sample questions
• Building sample strategy artifacts based on real-world scenarios

GEARED TO

CIOs and chief data officers; IT program managers, business sponsors and end users; BI program management, and data management staff

W5P

Wednesday, May 11, 2:15 p.m.–5:30 p.m.
Blending Business & IT Leadership, Data Management

Data Strategy II: Developing the Road Map

Evan Levy

The idea that data is the critical ingredient to running our companies by the numbers is nothing new. We’ve developed methods to move data between our application systems and data warehouses in a fast and scalable manner. We’ve delivered BI solutions to enable users to become knowledge workers. And it’s still not enough. It’s not enough because the sources of data and the needs of users continue to grow.

Many corporate data ecosystems are based on a vision that is 20 years out of date. Our methods and tactics for managing and processing data must expand to support data outside the company’s four walls. Business decisions require access to data outside the traditional IT infrastructure: cloud application platforms, social media feeds, third-party data providers, and business partner systems. We need to be able to support adding and managing new data sources and content more quickly and efficiently. If data is truly a corporate asset, it needs to be accessible and usable by anyone in the company.

In this session, Evan Levy will discuss the challenges within our corporate data ecosystems and the issues associated with supporting the enormous growth of new and diverse data content and sources. He will review various approaches and methods to tackling these challenges and how leading companies are succeeding in addressing their companies’ data objectives.

You will learn

• The business data ecosystem and the changes in data usage and sharing inside today’s companies
• The most common data challenges in the era of big data and cloud computing
• The methods and infrastructure changes required to support the enormous growth in new data sources and alternative data content
• Tactics for managing data movement (and outside) of your company; for reviewing tooling to simplify and automate data access and usage; for positioning users as stakeholders in data improvement processes (quality, correction, monitoring, etc.); for delivering (or deferring) data self-sufficiency; and for managing data content at the enterprise, organization, and user levels
• Aligning your company’s data needs with their tactical business priorities

GEARED TO

CIOs and chief data officers; IT program managers; business sponsors and end users; BI program management; data management staff

REGISTER at tdwi.org/CH2016 // QUESTIONS? 425.277.9181 or education@tdwi.org
Real Time, Right Now! A Landscape of the World of Streaming Analytics

John Myers

Information is coming faster and faster. Whether it is from real-time customer analytics or world sensor information from the Internet of Things, organizations must determine how to meet the demands of streaming analytical use cases. Will they use toolsets to collect, integrate, and analyze information? Will they use standardized software products to meet these challenges?

Streaming analytics presents unique challenges for organizations that have built their business intelligence best practices on more traditional analytical use cases and infrastructures. These organizations need to understand how streaming analytics differs from their existing procedures and the landscape of options available to them to solve these issues.

YOU WILL LEARN

• Significant differences between streaming analytics and traditional BI use cases
• Key attributes of data collection, integration, analysis, and storage for streaming analytics implementations
• Programming toolsets and software packages available to meet these challenges
• How to apply your existing knowledge base and skills to this new domain

GEARED TO

Business management; IT management; BI/analytics architects; data architects and modelers; business analysts; data analysts

Build vs. Buy: How to Avoid Disaster in Your Streaming Analytics Strategy

John Myers

You have decided to jump into the world of streaming analytics—or perhaps you were pushed by competitors, management, or circumstance. Now you need to build your plan to implement your streaming analytics project. Do you take advantage of the certainty of established software products to tackle your streaming project? Do you apply one of the many flexible toolsets to meet your challenges?

With streaming analytics, it is particularly important that you make correct choices in both technology and best practices. You need to understand which of the various available tools will best meet your requirements and your organization’s characteristics. And you must understand how the changing conditions of real-time analytics and sensor data collection and integration will impact your organization.

YOU WILL LEARN

• How to evaluate your organization’s readiness for streaming analytics
• How to decide if software packages or programming toolsets are best for your organization
• Which technology options are best suited for both situations
• How to understand when your organization is or will be ready to make a change in implementation

GEARED TO

Business management; IT management; BI/analytics architects; data architects and modelers; business analysts; data analysts

The Internet of Things: Analytics and Data Management

Eric Rogge

The term Internet of Things (IoT) broadly defines the use of the Internet and information technology to interact with smart devices. Technologies used to create IoT solutions include business intelligence, data management, machine learning, stream processing, messaging platforms, network protocols, telecommunications hardware, and a variety of microcontrollers and sensors. Hundreds of technology companies now offer various software and hardware products for IoT that require multidisciplinary teams in order to assemble them into successful solutions. Data management practitioners play an important role in assembling the “last mile” of IoT systems to ensure maximum business value.

This course covers the overall IoT landscape including technologies, vendors, standards, and ecosystems. Focus will be on industrial IoT (e.g., predictive maintenance) and not consumer IoT (e.g., smart homes). Emphasis will be on the role that analytics and data management play in an IoT system.

YOU WILL LEARN

• IoT technology landscape and terminology
• How smart device analytics varies from business process analytics
• Considerations for architecting analytics and data management for IoT
• Requirements for an IoT virtual project team
• How and where to find technologies and tutorials to prototype IoT systems

GEARED TO

IT practitioners responsible for enterprise analytics and data management who are engaged or interested in IoT projects
GEARED TO
Business leaders and executives involved in IoT revenue-generating businesses, data architects, business intelligence developers, quality assurance and testing leads

TH1 Thursday, May 12, 9:00 a.m.–5:00 p.m.
Blending Business & IT Leadership, Foundations

TDWI BI Program Management: A Competency Center Approach to BI Excellence
William McKnight
A BI program is a large and complex undertaking with competing interests, conflicting priorities, and simultaneous projects that must be managed from a “big picture” point of view. Program management encompasses the organization, disciplines, and activities necessary to coordinate interdependent projects. It extends beyond project activities to ensure quality and availability of business-critical information services and continuous support of vital business decision-making processes.

The very broad scope of BI program management encompasses business alignment, value management, quality management, change management, and risk management. Find out how a BI competency center (BICC) approach to program management will substantially increase the impact of your BI program.

YOU WILL LEARN
• The definition and purpose of a BICC
• The business case for a BICC: value realization, risk mitigation, standardization, prioritization, alignment, agility, etc.
• Roles and responsibilities of a BICC: assessment, coordination, communication, etc.
• Organizational structures for a BICC and relationships with other shared-services groups such as data governance councils
• Steps to creating a BICC: issues, challenges, and mistakes to avoid
• Day-to-day activities of BICC operations: end-user support, training, stakeholder communications, collaboration, user group management, change control, etc.
• Techniques to sustain, evolve, and mature the BICC

GEARED TO
BI program managers, directors, and sponsors; leaders and managers in BI and business analytics; leaders and managers for enterprise data and information management

TH2 Thursday, May 12, 9:00 a.m.–5:00 p.m.
Data Management, Foundations

TDWI Data Integration Principles and Practices: Creating Information Unity from Data Disparity
Richard Hines
Today’s business managers depend heavily on data analysis and decision-speed information, raising the stakes for data integration. At the same time, the work of integrating data has become increasingly complex. The simple processes of extract, transform, and load (ETL) integration for structured enterprise data no longer meet the need. Unstructured data, big data, departmental data, end-user data, and external data all challenge the old models for data integration. Meeting modern data integration challenges calls for data integration strategy and architecture.

Get ready to build reliable and adaptable data integration systems and make the most of recent advances in data integration technologies by following the path of strategy first, architecture next, and then integration systems and technology.

YOU WILL LEARN
• The role, purpose, and issues of data integration strategy
• Frameworks and patterns for data integration architecture
• How to fit unstructured data into integration strategy, architecture, and systems
• How to use integration architecture and patterns to handle large-volume data challenges
• How to apply architecture and patterns for enterprise, departmental, and local data
• How to select, mix and match, and apply several data integration methods, including ETL, federated, service oriented, and virtualized
• Techniques to collect and manage data integration requirements
• Tips and techniques for success throughout the data integration life cycle—strategy, architecture, systems development, and operations

GEARED TO
IT executives and big data directors; line-of-business directors and functional managers; data scientists; technology planners; consultants

TH3 Thursday, May 12, 9:00 a.m.–5:00 p.m.
Analytics

Serious Play for Predictive Analytics: What Works, What Doesn’t, and Why
Keith McCormick
This one-day vendor-neutral session will prepare analytic practitioners and functional managers to make sense of predictive modeling and take control of the analytic process. We’ll introduce the foundation for data-intensive analytic projects that deliver insight, clarity, confidence, and actionable decision support.

Live demonstrations will illustrate how organizational practitioners can effectively maneuver the natural messiness of advanced analytics. Attendees will realize that true impact with predictive analytics has far more to do with the overall management of a project team and strategic process than with the tactical skills of a data scientist.

If you are a business or public sector practitioner or leader seeking to propel your organization’s analytic maturity and put predictive analytics to work for measurable gain, then this session is designed for you.

YOU WILL LEARN
• How to develop a business-aligned strategy for applying high-value data-driven decisions
• How to identify, qualify and prioritize viable and actionable analytic opportunities
• How to convey a standardized process development model to implement across your team
• How to acquire both tactical and strategic skills required to stand out in the analytics practice
• Why most analytics projects fail and the main pitfalls to avoid
• A standardized process methodology for predictive analytics
• Resources, contacts and plans to reduce your project preparation time, costs and risks

GEARED TO
BI, MDM, and data warehousing program and project managers; data integration architects, designers, and developers; data and technology architects

REGISTER at tdwi.org/CH2016 // QUESTIONS? 425.277.9181 or education@tdwi.org
TH4 Thursday, May 12, 9:00 a.m.–5:00 p.m. Analytics

The Emergent Analytics Organization: Strategies for Engaging in Disruptive Change

Paul Flach

Today's most innovative analytical organizations are to be found in start-up companies unencumbered by traditional IT and project management paradigms. Learn why the emerging data science community, which was once looking for a level playing field, now grossly outmatches large corporate organizations and has the upper hand as disrupters in the marketplace. This course will demonstrate how large private and public corporations are radically changing their organization strategies and development methods to get back into the game as innovators and market disrupters.

YOU WILL LEARN
• The contrasting traits of the emerging data science communities and organizations born out of traditional IT paradigms
• Radically new leadership strategies based on the phenomena of “emergence and complexity behavior,” and how they are employed to enable self-organizing and innovative organizations
• Organizational strategies that deliberately implement a healthy tension between result-oriented analytics and sustainable product development to drastically increase productivity
• Portfolio management approaches for a more logical and extensible means of organizing and managing your complex assortment of analytical products and information assets
• Opportunity management approaches to move analytical needs through the approval and delivery pipeline more efficiently while maintaining a keen eye for value
• How the “Perpetual Analytics Method” integrates these strategies into a product development life cycle with minimal bureaucracy and optimal throughout
• Use cases from public and private organizations that have implemented these strategies

GEARED TO
Leaders and champions of business innovation; all management levels who are stakeholders of analytics; project managers

TH5 Thursday, May 12, 9:00 a.m.–5:00 p.m. Big Data

Hands-on Hadoop

Krish Krishnan

Hadoop has created a lot of buzz. From data warehousing to advanced analytics, our enterprise data and processing infrastructure is being reshaped by Hadoop technology. The question is no longer if you’ll have Hadoop, but how best to approach it for both business and technical value.

This class offers a hands-on learning experience working with the Hadoop ecosystem. Using a series of examples and exercises for each topic, you’ll experience the Hadoop tools firsthand and strengthen your learning with discussion about how to implement them.

YOU WILL LEARN
• Hadoop components and architecture
• Configuration of Hadoop
• Configuration of core components (MapReduce, HDFS, Yarn)
• Usage of Hadoop tools (HBase, Hive, Pig, Mahout, Impala)
• ZooKeeper setup and configuration
• Hadoop administration and management

TH6A Thursday, May 12, 9:00 a.m.–12:15 p.m. Data Management

Data Integration Approaches, Technologies, and Alternatives

Knowledge of data warehouse fundamentals, plus an understanding of data warehouse architecture fundamentals

Evan Levy

Data integration has traditionally been positioned within IT organizations as the dominion of data warehousing. In today’s world, data sharing has become a production need and each data source is typically shared with 16 other consuming systems. Data integration isn’t just a technical process within the data warehousing space; it has become a common activity across a company from transactional systems data scientists to specialized analytical data marts, to end users merging sources into their spreadsheets.

In the era of big data, the growth of data breadth and new data sources have made the challenge of creating a “single version of truth” even more visible. Emerging technologies, cloud services, and new approaches have challenged the traditional extract, transform, and load (ETL) paradigm.

In this half-day session, Evan Levy will discuss the challenges and issues companies are facing, along with the various technologies and architectural approaches being used to deliver data to users. He’ll cover the major integration technologies (ETL, master data management [MDM], data virtualization) and provide a detailed framework to allow the student to compare and contrast product capabilities to their company’s needs.

YOU WILL LEARN
• The functional capabilities required to support enterprise-class data movement and integration
• Different approaches to support bulk and transactional data integration
• Supportive processing and technologies required by data integration (matching, identification, standardization, cleansing)
• ETL, data virtualization, and MDM—how they support data integration and how they’re different

GEARED TO
Integration and database architects; IT managers and directors; project managers, database administrators, and database designers; technical advisers and consultants

TH6P Thursday, May 12, 1:45–5:00 p.m. Big Data, Data Management

Event Stream Processing: Adding Real-Time to the BI/DW Toolbox

Knowledge of data warehouse fundamentals, plus an understanding of data warehouse architecture fundamentals

Evan Levy

One of the biggest criticisms of analytics environments is their inability to collect, process, and deliver data to support real-time decision making. As business people have become more comfortable making business decisions with data,
they’ve demanded faster data delivery. The popularity of big data and the visibility of “velocity” have only heightened the importance of faster source data access, processing, and decision making. Real-time decision making isn’t a fringe need or a cutting-edge requirement; it’s becoming a business necessity. Event stream processing (ESP) has emerged as a technology to address this need.

In this half-day session, Evan Levy will discuss the functions, strengths, and capabilities that ESP can bring to your data warehousing environment. He’ll cover the technical fundamentals, provide an overview of the technology’s functions and capabilities, offer a framework for comparing and differentiating vendor offerings, and review a series of real-world use cases illustrating the various business and technical capabilities of ESP.

YOU WILL LEARN
• The main concepts of ESP
• The functions and capabilities enabled by ESP
• ESP, complex event processing, and how you’ll use them
• Real-world use cases for ESP (along with the deployment details)

GEARED TO
Integration and database architects; IT managers and directors; project managers, database administrators, and database designers; technical advisers and consultants

TH7A Thursday, May 12, 9:00 a.m.–12:15 p.m. Analytics

Emerging Technology for Advanced Analytics

Mike Lampa

Moore’s Law—the processing power of computers doubles every two years—continues to hold true. For analytics, this means increasing capabilities to crunch more data, more quickly, at reduced costs. Software capabilities are exploding with options to leverage increased processing power and capitalize on the big data buzz.

From little known start-ups to the mega-stacks, many new capabilities exist to acquire, integrate, manage, consume, analyze, and visualize data. These technologies enable increasingly complex data mining, pattern detection, machine learning, predictive modeling, and workflow collaboration. They create new opportunities to expand beyond traditional BI solutions into hyper-integrated advanced analytics that will ultimately blur the line between business operations and business analytics.

YOU WILL LEARN
• How hardware layers are evolving at all levels from chipsets to supercomputers supporting advanced analytics workloads
• How software providers are removing barriers to entry for advanced analytics
• How emerging technologies in hardware and software combine to address complex and demanding advanced analytics workloads
• Where big data finds its niche in the world of analytics-enabling technologies

GEARED TO
Chief information officers; chief analytics officers; chief technology officers; BI and analytics architects; enterprise architects; data scientists

TH7P Thursday, May 12, 1:45–5:00 p.m. Analytics

Innovative Techniques for Advanced Analytics

Mike Lampa

The world of advanced analytics is about developing solutions that closely simulate the way humans think. The key is capability to assimilate massive volumes of diverse information, observe countless permutations of data points, and discover meaningful patterns and trends. Discovery is a typical goal, with specific questions to be answered frequently unknown. Original hypotheses may morph many times along the path to real business insight. Traditional BI practices struggle to realize “the art of the possible” that is the promise of advanced analytics. In this session, we’ll look at proven innovative processes to enable the fast-paced, dynamic, and sometimes chaotic nature of advanced analytics projects. We’ll explore creative ways to weave advanced analytics into the fabric of enterprise decision making, both strategic and tactical.

YOU WILL LEARN
• How project management evolves to support advanced analytics
• How to augment systems methodologies to embrace advanced analytics without compromising systems audit points
• How to leverage new technologies, reference architectures, and design patterns to bring advanced analytics to the masses
• How to develop the talent needed to become an advanced analytics enterprise
• How to drive adoption of advanced analytics throughout the enterprise

GEARED TO
Chief analytics officers, data scientists, business strategists, business analysts, functional line-of-business owners (chief marketing officers, sales executives, supply chain executives, chief operations officers, etc.)

F1 Thursday, May 13, 8:00 a.m.–3:30 p.m. Data Management, Foundations

TDWI Data Quality Management: Techniques for Data Profiling, Assessment, and Improvement

Richard Hines

Data quality is one of the most difficult challenges for nearly every business, IT organization, and BI program. The most common approach to data quality problems is reactive—a process of fixing problems when they are discovered and reported. But reactive data quality methods are not quality management; they are simply quality maintenance—a never-ending cycle of continuously fixing defects but rarely removing the causes. The only proven path to sustainable data quality is through a comprehensive quality management program that includes data profiling, data quality assessment, root cause analysis, data cleansing, and process improvement.

YOU WILL LEARN
• Techniques for column, table, and cross-table data profiling
• How to analyze data profiles and find the stories within them
• Subjective and objective methods to assess and measure data quality
• How to apply OLAP and performance scorecards for data quality management
• How to get beyond symptoms and understand the real causes of data quality defects
• Data cleansing techniques to effectively remediate existing data quality deficiencies
• Process improvement methods to eliminate root causes and prevent future defects
Data Preparation for Predictive Analytics

Keith McCormick

This one-day vendor-neutral session will expose analytic practitioners, data scientists, and those looking to get started in predictive analytics to the critical importance of selecting, transforming, and properly preparing data ahead of model-building. The instructor will present the characteristics of varying data types, how to address data quality issues, and how to identify data representations that are fitting to various project types.

Participants will learn that data outliers are often not errors in the data, but sometimes the data points of most interest. Live demonstrations will reinforce why problem context is required to understand how to deal with outliers and why undertreating extreme values can introduce model bias. This session will cover a wide range of data preparation exercises ranging from data sandbox construction to the creation of training, test, and validation data sets for model development.

YOU WILL LEARN
• To prepare a data sandbox for predictive analytics
• To detect and treat missing data and data quality issues
• To match data representations to fitting project types
• To construct various data transformations
• To handle data outliers without biasing model performance
• To build ‘train/test/validation’ data sets for model development
• To leave with resources, skills, and plans to confidently process raw data for analytics

GEARED TO
Analytic practitioners; data scientists; IT professionals; technology planners; consultants; business analysts; analytic project leaders

Data Storytelling: The New Horizon in Business Analytics

Ted Cuzzillo, Dave Wells

Stories are powerful. We’ve used them throughout history to capture attention, convey ideas, fire the imagination, and stir the soul. Data can be persuasive, but stories are compelling. Blending data and stories—data storytelling—is a particularly powerful combination.

Storytellers are the next generation of business and data analysts. Data storytelling is a recent and important contribution to analytics, going beyond quantification and visualization to complement data with narrative. A well-told story that is interesting and convincing may appear quite easy on the surface, but crafting a good data story is challenging.

In this highly interactive session, you will gain experience blending the science of statistics, the art of data visualization, and the talent of verbal narrative to develop and deliver compelling data stories.

A laptop computer is recommended but not required for this course.

YOU WILL LEARN
• Four reasons to pursue the art of storytelling
• Several story types and when to use them
• How to compose captivating and compelling stories
• To find the story line in a collection of data
• To craft a story that combines data visuals with verbal narrative
• To choose the best visuals for your story
• To filter information and visuals that add noise to a story
• To understand and connect with the audience when telling a data story

GEARED TO
BI and analytics designers and developers; anyone interested in learning new and highly effective ways to communicate and share information

Introduction to NoSQL for Those Used to SQL: Storing and Managing Operational Big Data

William McKnight

In this informative session, learn about the emerging class of NoSQL technologies that can be used to manage operational big data. Understand the ideal workloads for NoSQL in managing enterprise data, and where NoSQL adds value to an enterprise information strategy.

Find out how to get projects started, and how to drop the “not in production” label to position NoSQL as part of your production toolbox for data management. This “code-lite” session addresses the NoSQL community as well as the key user community, providing guidance on how NoSQL technologies work and how to position them in the enterprise. This practical session will help you add a significant class of technologies into consideration to ensure information remains an unparalleled corporate asset.

YOU WILL LEARN
• Big data basics
• Enablers for NoSQL
• NoSQL data models: key-value, document, graph
• NoSQL usage patterns
• NoSQL database architectures

GEARED TO
Anyone with a SQL background who is interested, curious, or even skeptical about the role and value of NoSQL technologies.
This “code-lite” class is an introduction to graph databases and the relationship data stored in them. It will help the student determine why, how, and where to apply graphs and how to get started.

**YOU WILL LEARN**
- The current state of graph databases
- Realizing value from relationship data
- Graph database modeling basics
- Graph databases in the enterprise: data loading and architecture basics

**GEARED TO**
Data architects; business analysts; data developers; data administrators; data strategists; chief data officers

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**F5A NEW!**

**Working with Data Scientists**

Jill Camper

Data science is a hot topic today. It seems that everyone wants to hire data scientists. It’s a challenge because the demand for data scientists outstrips the supply and salaries are among the highest in the field of analytics. Yet, what is a data scientist? Are they statisticians, mathematicians, or magicians? How do you know what to look for in a data scientist? What do you need to know to interview candidates and make good hiring choices? Once a data scientist is hired, how do you work with him or her?

This course helps to clear the fog around data science. It introduces data science terminology, describes the differences among data science fields of study, and discusses what is different about those who choose this career. Data scientists can bring a lot of value to an organization but, unlike traditional developers, they thrive in a different environment, often needing more freedom and not speaking in typical business jargon. All of this can cause data science initiatives to either fail or stall. A little planning and understanding can go a long way in the pursuit of data science.

**YOU WILL LEARN**
- Definitions, concepts, and terminology of data science
- Fields of data science
- How to know what kind of data scientist you need for your organization
- What is different about data scientists and how to set them up for success
- Why a data scientist needs freedom
- Key tips to ensure that you, your organization, and your data scientist are happy

**GEARED TO**
BI program managers, architects, and project managers; business analysts who want to understand how to communicate to data scientists; business managers who need new tools to help them set their data scientist up for success
Modernizing Data Ecosystems to Enable Data Value, Analytics, and Business Transformation

The TDWI Executive Summit in Chicago brings together expert speakers, case studies, and panel discussions to help you understand the many options your organization has for modernizing key data ecosystems for warehousing, reporting, and analytics.

May 9–10, 2016  tdwi.org/CHEXEC16

REGISTER EARLY & SAVE

SAVE $340 when you register by March 18
SAVE $130 when you register by April 8

Use priority code EXEC2

Learn
how to recognize, prioritize, sponsor, fund, plan, and execute modernization efforts for data warehouses, other data environments, analytics, and business intelligence.

Discover
new data-driven applications for both operations and analytics that a modern data ecosystem can make available to your organization.

Apply
the experience-based insights you gain from summit speakers to modernizing critical data ecosystems, operations, and processes.
How to Register

STEP 1. SELECT YOUR CLASSES
Check one full-day course or one morning (A) course and one afternoon (P) course for each day that you will attend. Courses without an A or P designation are full-day courses.

SUNDAY, MAY 8
- S1 TDWI Business Intelligence Principles and Practices: Charting the Course to BI Success
- S2 TDWI Performance Management: Dashboards, Scorecards, and Metrics for Real Business Impact
- S3 TDWI Big Data Fundamentals: Creating Value from Non-Traditional Data Sets
- S4 TDWI Dimensional Data Modeling Primer: From Requirements to Business Analysis
- S5 Business Information and Modern BI: Balancing OLAP, Analytics, and Performance Management
- S6A Business Analytics Centers of Excellence: Creating Federated and Grassroots Organizational and Governance Models
- S6P The Secrets of Analytical Leaders: The Keys to Succeeding with BI and Analytics

MONDAY, MAY 9
- M1 TDWI Analytics Fundamentals
- M2 TDWI Data Visualization Fundamentals
- M3 Dimensional Modeling Beyond the Basics: Intermediate and Advanced Techniques
- M4 Data Modeling in the Age of Big Data
- M5A Self-Service BI and Analytics: Turning the Promise into Reality
- M5P Visualization Best Practices and Design Standards: Creating a Common Visual Vocabulary
- M6A Demystifying Big Data: BI Isn’t Big Data and Big Data Isn’t BI
- M6P Designing an Architecture for Data and Analytics
- M7A CBIP Preparation for the Information Systems Core Exam
- M7P CBIP Preparation for the Data Warehousing Exam

TUESDAY, MAY 10
- T1 TDWI Predictive Analytics Fundamentals
- T2 Practical Techniques for Aligning Business and IT. Navigating Politics and Culture
- T3 Hands-on: Data Mining with R
- T4 Understanding Hadoop
- T5 From BI to IoT: One Architecture, Many Technologies
- T6A TDWI Data Warehouse Automation: Better, Faster, Cheaper ... You Can Have It All
- T6P TDWI Data Virtualization: Solving Complex Data Integration Challenges
- T7A Data Discovery, Exploration, and More: The Latest Innovations in Analysis and BI Tools
- T7P Delivering Data Faster: Innovations in Integration Tools

WEDNESDAY, MAY 11
- W1 Advanced Hadoop: Solutions for Enterprise Applications
- W2 Data Preparation: Techniques and Tools for Analytics-Ready Data
- W3A TDWI Data Governance Fundamentals: Managing Data as an Asset
- W3P TDWI Data Governance Innovations: Adapting for Agile, Big Data, and Cloud
- W4A Creating an Analytically Driven Enterprise: Implementing an Analytics Program
- W4P Gain the Competitive Edge with Customer Analytics: Your Customers are Talking to You. Are You Listening?
- W5A Data Strategy I: A Corporate Plan for Data
- W5P Data Strategy II: Developing the Road Map
- W6A Real Time, Right Now! A Landscape of the World of Streaming Analytics
- W6P Build vs. Buy: How to Avoid Disaster in Your Streaming Analytics Strategy
- W7A The Internet of Things: Analytics and Data Management
- W7P Internet of Things: Developing A Winning Strategy, Roadmap, and Leadership Methodologies

THURSDAY, MAY 12
- TH1 TDWI BI Program Management: A Competency Center Approach to BI Excellence
- TH2 TDWI Data Integration Principles and Practices: Creating Information Unity from Data Disparity
- TH3 Serious Play for Predictive Analytics: What Works, What Doesn’t, and Why
- TH4 The Emergent Analytics Organization: Strategies for Engaging in Disruptive Change
- TH5 Hands-on Hadoop
- TH6A Data Integration Approaches, Technologies, and Alternatives
- TH6P Event Stream Processing: Adding Real-Time to the BI/DW Toolbox
- TH7A Emerging Technology for Advanced Analytics
- TH7P Innovative Techniques for Advanced Analytics

FRIDAY, MAY 13
- F1 TDWI Data Quality Management: Techniques for Data Profiling, Assessment, and Improvement
- F2 Data Preparation for Predictive Analytics
- F3 Data Storytelling: The New Horizon in Business Analytics
- F4A Introduction to NoSQL for Those Used to SQL: Storing and Managing Operational Big Data
- F4P Introduction to Graph Databases
- F5A Working with Data Scientists
STEP 2. CALCULATE YOUR PAYMENT
Conference price includes complimentary TDWI Premium Membership. Current TDWI Premium Members get a $275 discount off the conference price (in lieu of complimentary Premium Membership). Multiple-day packages do not require consecutive days.

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- CURRENT MEMBER DISCOUNT (Deduct $275 from above)  $ _______
  Premium Membership status will be validated when your registration is processed
- TEAM DISCOUNT (Deduct 10% from above)  $ _______
  for 3 or more people from the same company registering at the same time
+ LATE FEE (After May 6, 2016—add $50)  $ _______

= TOTAL FEE  $ _______

STEP 3. REGISTER
Online: tdwi.org/CH2016/register
Phone: 425.277.9201 (M–F, 9:00 a.m.–5:00 p.m. PT)
Rest easy—online registrations are secure. Our secured server environment keeps your information private.

TDWI’s Federal Tax ID Number is 20-4583700.
TDWI is a division of 1105 Media, Inc.

REGISTRATION DEADLINES (PRIORITY CODE CH6)
Super Early Registration Deadline . . . . . . . . . . . . . . . . . . . . . . . . . March 18, 2016
Early Registration Deadline . . . . . . . . . . . . . . . . . . . . . . . . . April 8, 2016
Regular Registration Deadline . . . . . . . . . . . . . . . . . . . . . . . . . May 6, 2016
After May 6, please register on site. Registration will be limited to space available. You will incur a $50 late registration fee after May 6.

TEAM DISCOUNT
When three or more people from a single company or government agency register at the same time, the entire team receives a 10% discount.
All registration forms must be submitted together in order to qualify for the team discount.

TDWI PREMIUM MEMBERSHIP INCLUDED
All registrations for three or more days include a one-year TDWI Premium Membership. If you are already a current TDWI Premium Member, you will instead be eligible for a $275 discount off the conference price (in lieu of complimentary Premium Membership).
Visit tdwi.org/premium-membership for more information on TDWI Premium Member benefits. Premium Membership is activated on your conference registration date, so you can begin to enjoy benefits right away.

REFUND AND CANCELLATION POLICY
You may substitute another person in your place by calling 425.277.9201 (M–F, 8:00 a.m.–5:00 p.m. PT) before April 22, 2016.
If you must cancel, your refund request must be emailed to registration@tdwi.org no later than April 22. Your fee will be returned, less a 20 percent cancellation fee. No refunds or credits will be issued after April 22.

CONFERENCE QUESTIONS?
Phone: 425.277.9181
E-mail: education@tdwi.org